

October 29, 2020

VIA ELECTRONIC FILING

The Honorable Kimberly D. Bose, Secretary  
Federal Energy Regulatory Commission  
888 First Street, N.E.  
Washington, DC 20426

**Re:   *Public Service Company of Colorado***  
**Xcel Energy Operating Companies Open Access Transmission Tariff**  
**Docket No. ER19-1864**  
**Revisions to Attachment N Large Generator Interconnection Procedures**

Dear Secretary Bose:

In compliance with Order No. 845<sup>1</sup>, Public Service Company of Colorado (“PSCo”) submitted revisions to the Large Generator Interconnection Process provided in Attachment N (“Revised LGIP”) of the Xcel Energy Operating Companies FERC Electric Tariff, Third Revised Volume No. 1 in Docket ER19-1864, on February 18, 2020, as amended on February 20, 2020 and May 19, 2020. In its July 16, 2020 Order on Compliance, the Federal Energy Regulatory Commission (“Commission”) found that PSCo’s filing partially complied with Order No. 845, but required further revisions.<sup>2</sup>

The July 2020 Order accepted PSCo’s revision to (1) Section 4.4.4, (2) Identification and Definition of Contingent Facilities, (3) Requesting Interconnection Service below Generating Facility Capacity and (4) Provisional Interconnection Service.

The Commission determined a further compliance filing was needed to (1) ensure that the determination a technological advancement is a material modification is completed within 30 days of the request and (2) describe the studies used to determine if a technological advancement is a material modification.<sup>3</sup> The Commission directed PSCo to submit a further compliance filing to address each issue within 120 days of the July 16<sup>th</sup> Order.

---

<sup>1</sup> *Reform of Generator Interconnection Procedures and Agreements*, Order No. 845, 163 FERC ¶ 61,043 (2018), *errata notice*, 167 FERC ¶ 61,123, *order on reh’g*, Order No. 845-A, 166 FERC ¶ 61,137 (2019), *errata notice*, 167 FERC ¶ 61,124, *order on reh’g*, Order No. 845-B, 168 FERC ¶ 61,092 (2019).

<sup>2</sup> *Pub. Serv. Co. of Colo.*, 172 FERC ¶ 61,023 (2020) (July 2020 Order).

<sup>3</sup> *Id.* P11 and 12.

PSCo's revisions clarify that the study will be complete within 30 days of the request. The revisions also identify that if studies are required, "studies may include steady-state, reactive power, short circuit, stability analysis and any other appropriate studies that the Transmission Provider deems necessary based on the Transmission Provider's engineering judgment." This description of the studies used to determine if a technological advancement is a material modification is similar to the description recently approved in ER19-1939 for Arizona Public Service Company.

With this filing, PSCo submits version 0.6.4 of the Revised LGIP. This version of the LGIP is intended to fully replace the version included in the May 19<sup>th</sup> filing.

Respectfully submitted,

/s/ Liam D. Noailles

Dr. Liam D. Noailles

Manager, Federal Regulatory Affairs

Xcel Energy Services Inc.

1800 Larimer St., Suite 1200

Denver, CO 80202

Telephone: (303) 571-2794

Email: [Liam.D.Noailles@xcelenergy.com](mailto:Liam.D.Noailles@xcelenergy.com)

Cc: PSCo Tariff Customers

Director, Division of Tariffs and Market Development (West)

**CERTIFICATE OF SERVICE**

I, Elizabeth Walkup, hereby certify that I have this day electronically served a notice of the enclosed filing on the official service list maintained by the Commission for this proceeding, on the state Colorado Public Utilities Commission, on each customer taking transmission service from PSCo or generation interconnection service from PSCo, and all customers in PSCo's interconnection queue under the Xcel Energy Tariff.

Dated at Minneapolis, Minnesota this 29<sup>th</sup> day of October, 2020.

/s/ Elizabeth Walkup

Elizabeth Walkup

Xcel Energy

Senior Transmission Business Analyst

414 Nicollet Mall, 6th Floor Minneapolis,

MN 55401

(612) 330-6780

[elizabeth.a.walkup@xcelenergy.com](mailto:elizabeth.a.walkup@xcelenergy.com)

## **ATTACHMENT N**

### **Standard Large Generator Interconnection Procedures – Revised (“Revised LGIP”)**

**Applicable to Generating Facilities that exceed 20 MWs connecting to the Transmission System**

**of**

**Public Service Company of Colorado**

**Note: For further information regarding a large generation interconnection to the transmission system of any of the Xcel Energy Operating Companies, please consult the currently effective “Interconnection Guidelines For Transmission Interconnected Producer-Owned Generation Greater than 20 MW” available at the Xcel Energy Inc. website**

Proposed Effective Date: 12-5-2019

## **TABLE OF CONTENTS**

### **Section 1. Definitions**

### **Section 2. Scope and Application**

- 2.1 Application of Revised LGIP.**
- 2.2 Comparability.**
- 2.3 Base Case Data.**
- 2.4 No Applicability to Transmission Service.**

### **Section 3. Interconnection Requests.**

- 3.1 General.**
- 3.2 Identification of Types of Interconnection Services.**
  - 3.2.1 Energy Resource Interconnection Service.**
    - 3.2.1.1 The Product.**
    - 3.2.1.2 The Study.**
  - 3.2.2 Network Resource Interconnection Service.**
    - 3.2.2.1 The Product.**
    - 3.2.2.2 The Study.**
- 3.3 Utilization of Surplus Interconnection Service.**
  - 3.3.1 Surplus Interconnection Service Requests.**
  - 3.3.2 Process for Evaluating Surplus Interconnection Requests and Obtaining Interconnection Service Requests**
- 3.4 Valid Interconnection Request**
  - 3.4.1 Initiating an Interconnection Request.**
  - 3.4.2 Acknowledgment of Interconnection Request.**
  - 3.4.3 Deficiencies in Interconnection Request.**
  - 3.4.4 Scoping Meeting.**
- 3.5 OASIS Posting.**
  - 3.5.1 OASIS Posting**
    - 3.5.1.1 Definitive Study Phase 1 Processing Time.**
    - 3.5.1.2 Definitive Interconnection System Impact Studies Processing Time.**
    - 3.5.1.3 Interconnection Facilities Studies Processing Time.**
    - 3.5.1.4 Interconnection Service Requests Withdrawn from Interconnection Queue.**
  - 3.5.2 Requirement to Post Interconnection Study Metrics**
- 3.6 Coordination with Affected Systems.**
- 3.7 Withdrawal.**
  - 3.7.1 Withdrawal Penalty**
    - 3.7.1.1 Calculation of the Withdrawal Penalty**
    - 3.7.1.2 Distribution of the Withdrawal Penalty**
- 3.8 Identification of Contingent Facilities.**
  - 3.8.1 Method for Identifying Contingent Facilities**

### **Section 4. Interconnection Request Evaluation Process.**

Proposed Effective Date: 12-5-2019

- 4.1 Queue Position.**
  - 4.1.1 Assignment of Queue Position**
  - 4.1.2 Higher Queue Position**
- 4.2 General Study Process**
  - 4.2.1 Initiation of a Definitive Interconnection System Impact Study Cluster.**
  - 4.2.2 Initiation of a Resource Solicitation Cluster.**
  - 4.2.3 Study Cost Allocation.**
  - 4.2.4 Transmission Provider's Interconnection Facilities and Network Upgrade Cost Allocation.**
- 4.3 Transferability of Queue Position.**
- 4.4 Modifications.**
  - 4.4.6 Technological Change Procedure.**
    - 4.4.6.1 Technological Change Request**

## **Section 5. Transition Procedures**

- 5.1 Procedures for Transitioning to the First-Ready, First-Served Revised LGIP**
  - 5.1.1.1 Transitional Serial Projects**
  - 5.1.1.2 Combined System Impact and Interconnection Facilities Transitional Cluster Study**
- 5.2 New Transmission Provider.**

## **Section 6. Informational Interconnection Study**

- 6.1 Informational Interconnection Study Agreement.**
- 6.2 Scope of Informational Interconnection Study.**
- 6.3 Informational Interconnection Study Procedures.**

## **Section 7. Phase 1 through 3 of the Definitive Interconnection Study Process**

- 7.1 Definitive Interconnection System Impact Study Agreement.**
- 7.2 Execution of Definitive Interconnection System Impact Study Agreement.**
- 7.3 Scope of Definitive Interconnection System Impact Study.**
- 7.4 Definitive Interconnection System Impact Study Procedures**
- 7.5 Meeting with Transmission Provider.**
- 7.6 Re-Study.**
- 7.7 Readiness Milestones and Site Control**
  - 7.7.1 Readiness Milestone 1 ("M1")**
  - 7.7.2 Readiness Milestone 2 ("M2")**
  - 7.7.3 Readiness Milestone 3 ("M3")**
  - 7.7.4 Readiness Milestone 4 ("M4")**
  - 7.7.5 Security Requirements**
  - 7.7.6 Site Control**

## **Section 8. Interconnection Facilities Study**

Proposed Effective Date: 12-5-2019

Approved Effective Date:

- 8.1 Interconnection Facilities Study Agreement.**
- 8.2 Scope of Interconnection Facilities Study.**
- 8.3 Interconnection Facilities Study Procedures.**
- 8.4 Meeting with Transmission Provider.**
- 8.5 Re-Study**

**Section 9. Engineering & Procurement (“E&P”) Agreement.**

**Section 10. Standard Large Generator Interconnection Agreement (LGIA)**

- 10.1 Tender.**
- 10.2 Negotiation.**
- 10.3 Execution and Filing.**
- 10.4 Commencement of Interconnection Activities.**

**Section 11. Construction of Transmission Provider's Interconnection Facilities and Network Upgrades**

- 11.1 Schedule.**
- 11.2 Construction Sequencing**
  - 11.2.1 General.**
  - 11.2.2 Advance Construction of Network Upgrades that are an Obligation of an Entity other than Interconnection Customer.**
  - 11.2.3 Advancing Construction of Network Upgrades that are Part of an Expansion Plan of the Transmission Provider.**
  - 11.2.4 Amended Definitive Interconnection System Impact Study.**

**Section 12. Miscellaneous**

- 12.1 Confidentiality.**
  - 12.1.1 Scope.**
  - 12.1.2 Release of Confidential Information.**
  - 12.1.3 Rights.**
  - 12.1.4 No Warranties.**
  - 12.1.5 Standard of Care.**
  - 12.1.6 Order of Disclosure.**
  - 12.1.7 Remedies.**
  - 12.1.8 Disclosure to FERC, its Staff, or a State.**
- 12.2 Delegation of Responsibility.**
- 12.3 Obligation for Study Costs and Withdrawal Penalty**
- 12.4 Third Parties Conducting Studies.**
- 12.5 Disputes.**
  - 12.5.1 Submission.**
  - 12.5.2 External Arbitration Procedures.**
  - 12.5.3 Arbitration Decisions.**
  - 12.5.4 Costs.**
  - 12.5.5 Non-Binding Dispute Resolution Procedures.**
- 12.6 Local Furnishing Bonds.**

Proposed Effective Date: 12-5-2019

Approved Effective Date:

- 12.6.1      Transmission Providers That Own Facilities Financed by Local  
                 Furnishing Bonds.**
- 12.6.2      Alternative Procedures for Requesting Interconnection Service.**



Proposed Effective Date: 12-5-2019

Approved Effective Date:

Appendix A-1 – Overview and timeline of initiation of a DISIS Cluster: the DISIS Request Window, Customer Engagement Window, and Phase 1 of the DISIS

Appendix A-2 – Overview and Timeline of Definitive Interconnection Study Process, Including the DISIS Process.

Appendix 1 – Interconnection Request for a Large Generating Facility

Appendix 2 – Definitive Interconnection System Impact Study Agreement

Appendix 3 – Interconnection Facilities Study Agreement

Appendix 4 – Transitional Serial Interconnection Facilities Study Agreement

Appendix 5.1– Transitional Cluster Study Agreement

Appendix 5.2 –Provisional Interconnection Study Agreement

Appendix 5.3 – Surplus Interconnection Study Agreement

Appendix 5.4 – Informational Interconnection Study Request

Appendix 5.5 – Informational Interconnection Study Agreement

Appendix 6 – Standard Large Generator Interconnection Agreement

Appendix 6.1 – Interconnection Procedures For A Wind Generating Plant

Proposed Effective Date: 12-5-2019

## **Section 1. Definitions**

**Adverse System Impact** shall mean the negative effects due to technical or operational limits on conductors or equipment being exceeded that may compromise the safety and reliability of the electric system.

**Affected System** shall mean an electric system other than the Transmission Provider's Transmission System that may be affected by the proposed interconnection.

**Affected System Operator** shall mean the entity that operates an Affected System.

**Affiliate** shall mean, with respect to a corporation, partnership or other entity, each such other corporation, partnership or other entity that directly or indirectly, through one or more intermediaries, controls, is controlled by, or is under common control with, such corporation, partnership or other entity.

**Ancillary Services** shall mean those services that are necessary to support the transmission of capacity and energy from resources to loads while maintaining reliable operation of the Transmission Provider's Transmission System in accordance with Good Utility Practice.

**Applicable Laws and Regulations** shall mean all duly promulgated applicable federal, state and local laws, regulations, rules, ordinances, codes, decrees, judgments, directives, or judicial or administrative orders, permits and other duly authorized actions of any Governmental Authority.

**Applicable Reliability Council** shall mean the reliability council applicable to the Transmission System to which the Generating Facility is directly interconnected.

**Applicable Reliability Standards** shall mean the requirements and guidelines of NERC, the Applicable Reliability Council, and the Control Area of the Transmission System to which the Generating Facility is directly interconnected.

**Base Case** shall mean the base case power flow, short circuit, and stability data bases used for the Interconnection Studies by the Transmission Provider or Interconnection Customer.

**Breach** shall mean the failure of a Party to perform or observe any material term or condition of the Standard Large Generator Interconnection Agreement.

**Breaching Party** shall mean a Party that is in Breach of the Standard Large Generator Interconnection Agreement.

**Business Day** shall mean Monday through Friday, excluding Federal Holidays.

**Calendar Day** shall mean any day including Saturday, Sunday or a Federal Holiday. If a requirement due date lands on a Saturday, Sunday or Federal Holiday, the requirement is due the next Business Day.

Proposed Effective Date: 12-5-2019

**Cluster** shall mean a group of Interconnection Requests (one or more) that are studied together for the purpose of conducting the Interconnection Studies.

**Cluster Study** shall mean an Interconnection Study evaluating one or more Interconnection Requests.

**Clustering** shall mean the process whereby a group of Interconnection Requests is studied together, instead of serially, for the purpose of conducting the Interconnection Studies.

**Commercial Operation** shall mean the status of a Generating Facility that has commenced generating electricity for sale, excluding electricity generated during Trial Operation.

**Commercial Operation Date** of a unit shall mean the date on which the Generating Facility commences Commercial Operation as agreed to by the Parties pursuant to Appendix E to the Standard Large Generator Interconnection Agreement.

**Confidential Information** shall mean any confidential, proprietary or trade secret information of a plan, specification, pattern, procedure, design, device, list, concept, policy or compilation relating to the present or planned business of a Party, which is designated as confidential by the Party supplying the information, whether conveyed orally, electronically, in writing, through inspection, or otherwise.

**Contingent Facilities** shall mean those unbuilt Interconnection Facilities and Network Upgrades upon which the Interconnection Request's costs, timing, and study findings are dependent, and if delayed or not built, could cause a need for Re-Studies of the Interconnection Request or a reassessment of the Interconnection Facilities and/or Network Upgrades and/or costs and timing.

**Control Area** shall mean an electrical system or systems bounded by interconnection metering and telemetry, capable of controlling generation to maintain its interchange schedule with other Control Areas and contributing to frequency regulation of the interconnection. A Control Area must be certified by an Applicable NERC Regional Reliability Entity. Control Area shall have the same meaning as Balancing Authority Area as defined by NERC.

**Customer Engagement Window** shall have the meaning set forth in Section 4.2.1 of the Revised LGIP.

**Default** shall mean the failure of a Breaching Party to cure its Breach in accordance with Article 17 of the Standard Large Generator Interconnection Agreement.

**Definitive Interconnection Study Process ("Definitive Interconnection Study")** shall mean the complete definitive study process inclusive of the DISIS Request Window, Customer Engagement Window, Definitive Interconnection System Impact Study, and the Interconnection Facilities Study. Both the Resource Solicitation Cluster and the DISIS Cluster are processed under the Definitive Interconnection Study.

Proposed Effective Date: 12-5-2019

**Definitive Interconnection System Impact Study (“DISIS”)** shall mean an engineering study that evaluates the impact of a Cluster of Interconnection Requests on the safety and reliability of the Transmission System and, if applicable, an Affected System.

**Definitive Interconnection System Impact Study Agreement (“DISIS Agreement”)** shall mean the form of agreement contained in Appendix 2 of the Revised LGIP for conducting the Definitive Interconnection System Impact Study.

**Definitive Interconnection System Impact Study Cluster (“DISIS Cluster”)** shall mean an engineering study that evaluates the impact of the proposed interconnection(s) on the safety and reliability of Transmission System and, if applicable, an Affected System.

**DISIS Request Window** shall have the meaning set forth in Section 4.2.1 of the Revised LGIP.

**Dispute Resolution** shall mean the procedure for resolution of a dispute between the Parties in which they will first attempt to resolve the dispute on an informal basis.

**Distribution System** shall mean the Transmission Provider's facilities and equipment used to transmit electricity to ultimate usage points such as homes and industries directly from nearby generators or from interchanges with higher voltage transmission networks which transport bulk power over longer distances. The voltage levels at which distribution systems operate differ among areas.

**Distribution Upgrades** shall mean the additions, modifications, and upgrades to the Transmission Provider's Distribution System at or beyond the Point of Interconnection to facilitate interconnection of the Generating Facility and render the transmission service necessary to affect Interconnection Customer's wholesale sale of electricity in interstate commerce. Distribution Upgrades do not include Interconnection Facilities.

**Effective Date** shall mean the date on which the Standard Large Generator Interconnection Agreement becomes effective upon execution by the Parties subject to acceptance by FERC, or if filed unexecuted, upon the date specified by FERC.

**Emergency Condition** shall mean a condition or situation: (1) that in the judgment of the Party making the claim is imminently likely to endanger life or property; or (2) that, in the case of a Transmission Provider, is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to Transmission Provider's Transmission System, Transmission Provider's Interconnection Facilities or the electric systems of others to which the Transmission Provider's Transmission System is directly connected; or (3) that, in the case of Interconnection Customer, is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to, the Generating Facility or Interconnection Customer's Interconnection Facilities. System restoration and black start shall be considered Emergency Conditions; provided that Interconnection Customer is not obligated by the Standard Large Generator Interconnection Agreement to possess black start capability.

**Energy Resource Interconnection Service** shall mean an Interconnection Service that allows the Interconnection Customer to connect its Generating Facility to the Transmission Provider's

Proposed Effective Date: 12-5-2019

Transmission System to be eligible to deliver the Generating Facility's electric output using the existing firm or non-firm capacity of the Transmission Provider's Transmission System on an as available basis. Energy Resource Interconnection Service in and of itself does not convey transmission service.

**Engineering & Procurement (E&P) Agreement** shall mean an agreement that authorizes the Transmission Provider to begin engineering and procurement of long lead-time items necessary for the establishment of the interconnection in order to advance the implementation of the Interconnection Request.

**Environmental Law** shall mean Applicable Laws or Regulations relating to pollution or protection of the environment or natural resources.

**Federal Power Act** shall mean the Federal Power Act, as amended, 16 U.S.C. §§ 791a et seq.

**FERC** shall mean the Federal Energy Regulatory Commission (Commission) or its successor.

**Financial Security** shall have the meaning set forth in Section 7.7.1 of the Revised LGIP.

**Force Majeure** shall mean any act of God, labor disturbance, act of the public enemy, war, insurrection, riot, fire, storm or flood, explosion, breakage or accident to machinery or equipment, any order, regulation or restriction imposed by governmental, military or lawfully established civilian authorities, or any other cause beyond a Party's control. A Force Majeure event does not include acts of negligence or intentional wrongdoing by the Party claiming Force Majeure.

**Generating Facility** shall mean Interconnection Customer's device for the production and/or storage for later injection of electricity identified in the Interconnection Request, but shall not include the Interconnection Customer's Interconnection Facilities.

**Generating Facility Capacity** shall mean the net capacity of the Generating Facility and the aggregate net capacity of the Generating Facility where it includes multiple energy production devices.

**Good Utility Practice** shall mean any of the practices, methods and acts engaged in or approved by a significant portion of the electric industry during the relevant time period, or any of the practices, methods and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. Good Utility Practice is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather to be acceptable practices, methods, or acts generally accepted in the region.

**Governmental Authority** shall mean any federal, state, local or other governmental regulatory or administrative agency, court, commission, department, board, or other governmental subdivision, legislature, rulemaking board, tribunal, or other governmental authority having jurisdiction over the Parties, their respective facilities, or the respective services they provide, and exercising or entitled to exercise any administrative, executive, police, or taxing authority or

Proposed Effective Date: 12-5-2019

power; provided, however, that such term does not include Interconnection Customer, Transmission Provider, or any Affiliate thereof.

**Hazardous Substances** shall mean any chemicals, materials or substances defined as or included in the definition of “hazardous substances,” “hazardous wastes,” “hazardous materials,” “hazardous constituents,” “restricted hazardous materials,” “extremely hazardous substances,” “toxic substances,” “radioactive substances,” “contaminants,” “pollutants,” “toxic pollutants” or words of similar meaning and regulatory effect under any applicable Environmental Law, or any other chemical, material or substance, exposure to which is prohibited, limited or regulated by any applicable Environmental Law.

**Informational Interconnection Study** shall mean an analysis based on assumptions specified by Interconnection Customer in the Informational Interconnection Study Agreement.

**Informational Interconnection Study Agreement** shall mean the form of agreement contained in Appendix 5.5 of the Revised LGIP for conducting the Informational Interconnection Study.

**Initial Synchronization Date** shall mean the date upon which the Generating Facility is initially synchronized and upon which Trial Operation begins.

**In-Service Date** shall mean the date upon which the Interconnection Customer reasonably expects it will be ready to begin use of the Transmission Provider's Interconnection Facilities to obtain back feed power.

**Interconnection Customer** shall mean any entity, including the Transmission Provider, Transmission Owner or any of the Affiliates or subsidiaries of either, that proposes to interconnect its Generating Facility with the Transmission Provider's Transmission System.

**Interconnection Customer's Interconnection Facilities** shall mean all facilities and equipment, as identified in Appendix A of the Standard Large Generator Interconnection Agreement, that are located between the Generating Facility and the Point of Change of Ownership, including any modification, addition, or upgrades to such facilities and equipment necessary to physically and electrically interconnect the Generating Facility to the Transmission Provider's Transmission System. Interconnection Customer's Interconnection Facilities are sole use facilities (e.g. for generator interconnection).

**Interconnection Facilities** shall mean the Transmission Provider's Interconnection Facilities and the Interconnection Customer's Interconnection Facilities. Collectively, Interconnection Facilities include all facilities and equipment between the Generating Facility and the Point of Interconnection, including any modification, additions or upgrades that are necessary to physically and electrically interconnect the Generating Facility to the Transmission Provider's Transmission System. Interconnection Facilities are sole use facilities (e.g. for generator interconnection) and shall not include Distribution Upgrades, Stand Alone Network Upgrades or Network Upgrades. Interconnection Facilities may be shared by more than one Generating Facility in a Cluster.

**Interconnection Facilities Study** shall mean a study conducted by the Transmission Provider or a third party consultant for the Interconnection Customer to determine a list of facilities

Proposed Effective Date: 12-5-2019

(including Transmission Provider's Interconnection Facilities and Network Upgrades as identified in the Definitive Interconnection System Impact Study), the cost of those facilities, and the time required to interconnect the Generating Facility with the Transmission Provider's Transmission System. The scope of the study is defined in Section 8 of the Revised LGIP.

**Interconnection Facilities Study Agreement** shall mean the form of agreement contained in Appendix 3 of the Revised LGIP for conducting the Interconnection Facilities Study.

**Interconnection Request** shall mean an Interconnection Customer's request, in the form of Appendix 1 to the Revised LGIP, in accordance with the Tariff, to interconnect a new Generating Facility, or to increase the capacity of, or make a Material Modification to the operating characteristics of, an existing Generating Facility that is interconnected with the Transmission Provider's Transmission System.

**Interconnection Service** shall mean the service provided by the Transmission Provider associated with interconnecting the Interconnection Customer's Generating Facility to the Transmission Provider's Transmission System and enabling it to receive electric energy and capacity from the Generating Facility at the Point of Interconnection, pursuant to the terms of the Standard Large Generator Interconnection Agreement and, if applicable, the Transmission Provider's Tariff.

**Interconnection Study** shall mean any of the following studies: the Informational Interconnection Study, the Definitive Interconnection System Impact Study, and the Interconnection Facilities Study described in the Standard Large Generator Interconnection Procedures or Revised LGIP.

**Interconnection Study Agreement** shall mean any of the following agreements: the Informational Interconnection Study Agreement, the Definitive Interconnection System Impact Study Agreement, or the Interconnection Facilities Study Agreement described in the Standard Large Generator Interconnection Procedures or Revised LGIP.

**IRS** shall mean the Internal Revenue Service.

**Joint Operating Committee** shall be a group made up of representatives from Interconnection Customers and the Transmission Provider to coordinate operating and technical considerations of Interconnection Service.

**Large Generating Facility** shall mean a Generating Facility having a Generating Facility Capacity of more than 20 MW.

**Loss** shall mean any and all losses relating to injury to or death of any person or damage to property, demand, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties, arising out of or resulting from the other Party's performance, or non-performance of its obligations under the Standard Large Generator Interconnection Agreement on behalf of the indemnifying Party, except in cases of gross negligence or intentional wrongdoing by the indemnifying Party.

Proposed Effective Date: 12-5-2019

**Material Modification** shall mean those modifications that have a material impact on the cost or timing of any Interconnection Request with a later or equal Queue Position.

**Metering Equipment** shall mean all metering equipment installed or to be installed at the Generating Facility pursuant to the Standard Large Generator Interconnection Agreement at the metering points, including but not limited to instrument transformers, MWh-meters, data acquisition equipment, transducers, remote terminal unit, communications equipment, phone lines, and fiber optics.

**NERC** shall mean the North American Electric Reliability Council or its successor organization.

**Network Resource** shall mean any designated generating resource owned, purchased, or leased by a Network Customer under the Network Integration Transmission Service Tariff. Network Resources do not include any resource, or any portion thereof, that is committed for sale to third parties or otherwise cannot be called upon to meet the Network Customer's Network Load on a non-interruptible basis.

**Network Resource Interconnection Service** shall mean an Interconnection Service that allows the Interconnection Customer to integrate its Large Generating Facility with the Transmission Provider's Transmission System (1) in a manner comparable to that in which the Transmission Provider integrates its generating facilities to serve native load customers; or (2) in an RTO or ISO with market based congestion management, in the same manner as Network Resources. Network Resource Interconnection Service in and of itself does not convey transmission service.

**Network Upgrades** shall mean the additions, modifications, and upgrades to the Transmission Provider's Transmission System required at or beyond the point at which the Interconnection Facilities connect to the Transmission Provider's Transmission System to accommodate the interconnection of the Large Generating Facility to the Transmission Provider's Transmission System.

**Notice of Dispute** shall mean a written notice of a dispute or claim that arises out of or in connection with the Standard Large Generator Interconnection Agreement or its performance.

**OASIS** shall mean the Transmission Provider's Open Access Same-Time Information System.

**Party or Parties** shall mean Transmission Provider, Transmission Owner, Interconnection Customer or any combination of the above.

**Permissible Technological Advancement** shall mean modification to equipment that (1) results in electrical performance that is equal to or better than the electrical performance expected prior to the technology change, (2) does not cause any reliability concerns, (3) does not degrade the electrical characteristics of the generating equipment (e.g., the ratings, impedances, efficiencies, capabilities, and performance of the equipment under steady-state and dynamic conditions) and (4) does not have a material impact on the cost or timing of any Interconnection Request with a later queue priority date, and is therefore not a Material Modification. A Permissible Technological Advancements is a change in equipment that may achieve cost or grid performance efficiencies that may include turbines, inverters, plant



Proposed Effective Date: 12-5-2019

supervisory controls or other devices that may affect a generating facility's ability to provide ancillary services but does not include changes in generation technology type of fuel type.

**Phase (“Phase 1, Phase 2, Phase 3, or Phase 4”)** shall mean a distinct part of the Definitive Study Process as described in Section 7.

**Point of Change of Ownership** shall mean the point, as set forth in Appendix A to the Standard Large Generator Interconnection Agreement, where the Interconnection Customer's Interconnection Facilities connect to the Transmission Provider's Interconnection Facilities.

**Point of Interconnection** shall mean the point, as set forth in Appendix A to the Standard Large Generator Interconnection Agreement, where the Interconnection Facilities connect to the Transmission Provider's Transmission System.

**Provisional Interconnection Service** shall mean interconnection service provided by Transmission Provider associated with interconnecting the Interconnection Customer's Generating Facility to Transmission Provider's Transmission System and enabling that Transmission System to receive electric energy and capacity from the Generating Facility at the Point of Interconnection, pursuant to the terms of the Provisional Large Generator Interconnection Agreement and, if applicable, the Tariff.

**Provisional Interconnection Study** shall mean an analysis based on assumptions specified in the Provisional Interconnection Study Agreement.

**Provisional Interconnection Study Agreement** shall mean the form of agreement contained in Appendix 5.2 of the Standard Large Generator Interconnection Procedures for conducting the Provisional Interconnection Study.

**Provisional Large Generator Interconnection Agreement** shall mean the interconnection agreement for Provisional Interconnection Service established between Transmission Provider and/or the Transmission Owner and the Interconnection Customer. This agreement shall take the form of the Large Generator Interconnection Agreement, modified for provisional purposes.

**Queue** shall mean a queue for valid Interconnection Requests for the Definitive Interconnection Study Process.

**Queue Position** shall mean the order of a valid Interconnection Request, relative to all other pending valid Interconnection Requests, in the Definitive Interconnection Study Process. The Queue Position is established based upon the date and time Interconnection Customer satisfies all of the requirements of Section 7.2 of this Attachment N to enter the Definitive Study Process.

**Readiness Milestone(s)** shall have the meaning set forth in Section 7.7 of the Revised LGIP.

**Reasonable Efforts** shall mean, with respect to an action required to be attempted or taken by a Party under the Standard Large Generator Interconnection Agreement, efforts that are timely and consistent with Good Utility Practice and are otherwise substantially equivalent to those a Party would use to protect its own interests.

Proposed Effective Date: 12-5-2019

**Revised LGIP** shall mean the Large Generator Interconnection Process as described in this Attachment N.

**Resource Plan** shall mean any process authorized or required by Applicable Laws and Regulations for, *inter alia*, the selection of Generating Facilities.

**Resource Planning Entity** shall mean any entity required to develop a Resource Plan or conduct a Resource Solicitation Process.

**Resource Solicitation Cluster** shall mean a Cluster Study associated with a Resource Plan or related process.

**Resource Solicitation Process** shall mean any process authorized or required by Applicable Laws and Regulations for the acquisition of Network Resources.

**Scoping Meeting** shall mean the meeting between representatives of the Interconnection Customer and Transmission Provider conducted for the purpose of discussing the proposed interconnection request, alternative interconnection options, to exchange information including any transmission data and earlier study evaluations that would be reasonably expected to affect such interconnection options, to analyze such information, and to determine the potential feasible Points of Interconnection.

**Site Control** shall mean the exclusive land right to develop, construct, operate, and maintain the Generating Facility over the term of expected operation of the Generating Facility. Site Control shall include the right to develop, construct, operate, and maintain Interconnection Customer's Interconnection Facilities. Site Control may be demonstrated by documentation establishing: (1) ownership of, a leasehold interest in, or a right to develop a site of sufficient size to construct and operate the Generating Facility and associated Interconnection Customer's Interconnection Facilities; (2) an option to purchase or acquire a leasehold interest in a site of sufficient size to construct and operate the Generating Facility and associated Interconnection Facilities; or (3) any other documentation that clearly demonstrates the right of the Interconnection Customer to exclusively occupy a site of sufficient size to construct and operate the Generating Facility. Site Control for any co-located project is demonstrated by a contract or other agreement demonstrating shared land use for all co-located projects that meet the aforementioned provisions of this Site Control definition.

**Small Generating Facility** shall mean a Generating Facility that has a Generating Facility Capacity of no more than 20 MW.

**Stand Alone Network Upgrades** shall mean Network Upgrades that are not part of an Affected System that an Interconnection Customer may construct without affecting day-to-day operations of the Transmission System during their construction. Both the Transmission Provider and the Interconnection Customer must agree as to what constitutes Stand Alone Network Upgrades and identify them in Appendix A to the Standard Large Generator Interconnection Agreement. If the Transmission Provider and Interconnection Customer disagree about whether a particular Network Upgrade is a Stand Alone Network Upgrade, the Transmission Provider must provide the Interconnection Customer a written technical explanation outlining why the Transmission

Proposed Effective Date: 12-5-2019

Provider does not consider the Network Upgrade to be a Stand Alone Network Upgrade within 15 days of its determination.

**Standard Large Generator Interconnection Agreement (LGIA)** shall mean the form of interconnection agreement applicable to an Interconnection Request pertaining to a Large Generating Facility that is included in the Transmission Provider's Tariff.

**Standard Large Generator Interconnection Procedures (LGIP)** shall mean the interconnection procedures applicable to an Interconnection Request pertaining to a Large Generating Facility that are included in the Transmission Provider's Tariff.

**Surplus Interconnection Service** shall mean any unneeded portion of Interconnection Service established in a Large Generator Interconnection Agreement, such that if Surplus Interconnection Service is utilized the total amount of Interconnection Service at the Point of Interconnection would remain the same.

**Surplus Interconnection Study** shall mean an analysis based on assumptions specified by the Interconnection Customer in the Surplus Interconnection Study Agreement.

**Surplus Interconnection Study Agreement** shall mean the form of agreement contained in Appendix 5.3 of the Standard Large Generator Interconnection Procedures for conducting the Surplus Interconnection Study.

**System Protection Facilities** shall mean the equipment, including necessary protection signal communications equipment, required to protect (1) the Transmission Provider's Transmission System from faults or other electrical disturbances occurring at the Generating Facility and (2) the Generating Facility from faults or other electrical system disturbances occurring on the Transmission Provider's Transmission System or on other delivery systems or other generating systems to which the Transmission Provider's Transmission System is directly connected.

**Tariff** shall mean the Transmission Provider's Tariff through which open access transmission service and Interconnection Service are offered, as filed with FERC, and as amended or supplemented from time to time, or any successor tariff.

**Transmission Owner** shall mean an entity that owns, leases or otherwise possesses an interest in the portion of the Transmission System at the Point of Interconnection and may be a Party to the Standard Large Generator Interconnection Agreement to the extent necessary.

**Transmission Provider** shall mean the public utility (or its designated agent) that owns, controls, or operates transmission or distribution facilities used for the transmission of electricity in interstate commerce and provides transmission service under the Tariff. The term Transmission Provider should be read to include the Transmission Owner when the Transmission Owner is separate from the Transmission Provider.

**Transmission Provider's Interconnection Facilities** shall mean all facilities and equipment owned, controlled, or operated by the Transmission Provider from the Point of Change of Ownership to the Point of Interconnection as identified in Appendix A to the Standard Large Generator Interconnection Agreement, including any modifications, additions or upgrades to

Proposed Effective Date: 12-5-2019

such facilities and equipment. Transmission Provider's Interconnection Facilities are sole use facilities (e.g. for generator interconnection) and shall not include Distribution Upgrades, Stand Alone Network Upgrades or Network Upgrades. Transmission Provider's Interconnection Facilities may be shared by more than one Generating Facility in a given Study.

**Transmission System** shall mean the facilities owned, controlled or operated by the Transmission Provider or Transmission Owner that are used to provide transmission service under the Tariff.

**Trial Operation** shall mean the period during which Interconnection Customer is engaged in on-site test operations and commissioning of the Generating Facility prior to Commercial Operation.

**Withdrawal Penalty** shall have the meaning set forth in Section 3.7.1 of the Revised LGIP.

## **Section 2. Scope and Application.**

### **2.1 Application of Revised LGIP.**

Sections 2 through 12 apply to processing an Interconnection Request pertaining to a Large Generating Facility. As provided in Attachment P to the Tariff, Small Generating Facilities that are not eligible for the fast track process will be processed in a single Queue with Large Generating Facilities. Additionally, Small Generating Facilities requesting NRIS shall be processed under this Revised LGIP.

### **2.2 Comparability.**

Transmission Provider shall receive, process and analyze all Interconnection Requests in a timely manner as set forth in this Revised LGIP. Transmission Provider will use the same Reasonable Efforts in processing and analyzing Interconnection Requests from all Interconnection Customers, whether the Generating Facilities are owned by Transmission Provider, its subsidiaries or Affiliates, or others.

### **2.3 Base Case Data.**

Transmission Provider shall maintain base power flow, short circuit and stability databases, including all underlying assumptions, and contingency list on either its OASIS site or a password-protected website subject to confidentiality provisions in Revised LGIP Section 12.1. In addition, Transmission Provider shall maintain network models and underlying assumptions on either its OASIS site or a password-protected website. Such network models and underlying assumptions should reasonably represent those used during the most recent Interconnection Study and be representative of current system conditions. If Transmission Provider posts this information on a password-protected website, a link to the information must be provided on Transmission Provider's OASIS site. Transmission Provider is permitted to require that Interconnection Customers, OASIS site users and password-protected website users sign a confidentiality agreement before the release of commercially sensitive information or Critical Energy Infrastructure Information in the Base Case data. Such databases and

Proposed Effective Date: 12-5-2019

Approved Effective Date:

lists, hereinafter referred to as Base Cases, shall include all (1) generation projects and (2) transmission projects, including merchant transmission projects that are proposed for the Transmission System for which a transmission expansion plan has been submitted and approved by the applicable authority.

**2.4 No Applicability to Transmission Service.**

Nothing in this Revised LGIP shall constitute a request for transmission service or confer upon an Interconnection Customer any right to receive transmission service.

**Section 3. Interconnection Requests.**

**3.1 General.**

An Interconnection Customer shall submit to Transmission Provider an Interconnection Request in the form of Appendix 1 to this Revised LGIP, an application fee of \$5000, and a study deposit of:

- a. \$75,000 for requests of less than 50 MW, or
- b. \$150,000 for requests of 50 MW and greater, but less than 200 MW, or
- c. \$250,000 for requests of 200 MW and greater.

Transmission Provider shall apply the study deposit toward the cost of the Definitive Interconnection Study Process. Interconnection Customer shall submit a separate Interconnection Request for each site and may submit multiple Interconnection Requests for a single site. Interconnection Customer must submit a deposit with each Interconnection Request even when more than one request is submitted for a single site. An Interconnection Request to evaluate one site at two different voltage levels shall be treated as two Interconnection Requests. Interconnection Customers evaluating different options (such as different sizes, sites or voltages) are encouraged but not required to use the Informational Interconnection Study Process (please see Section 9) before entering the Definitive Interconnection Study Process.

At Interconnection Customer's option, Transmission Provider and Interconnection Customer will identify alternative Point(s) of Interconnection and configurations at the Scoping Meeting to evaluate in this process and attempt to eliminate alternatives in a reasonable fashion given resources and information available. Interconnection Customer shall select the definitive Point of Interconnection to be studied no later than the execution of the Definitive System Impact Study Agreement. For purposes of clustering Interconnection Service requests, Transmission Provider may make reasonable changes to the requested Point(s) of Interconnection to facilitate efficient interconnection of Interconnection Customers at common points of interconnection. Transmission Provider shall notify Interconnection Customers in writing of any intended changes to the requested Point(s) of Interconnection and the Point(s) of Interconnection shall only change upon mutual agreement.

Proposed Effective Date: 12-5-2019

Interconnection Customer may request a level of Interconnection Service below the Generating Facility Capacity. These requests for Interconnection Service shall be studied at the level of Interconnection Service requested for purposes of Interconnection Facilities and Network Upgrades, and associated costs, but may be subject to other studies at the full Generating Facility Capacity to ensure safety and reliability of the system, with the study costs borne by the Interconnection Customer. If after the additional studies are complete, Transmission Provider determines that additional Network Upgrades are necessary, then Transmission Provider must: (1) specify which additional Network Upgrade costs are based on which studies; and (2) provide a detailed explanation of why the additional Network Upgrades are necessary. Any Interconnection Facility and/or Network Upgrade costs required for safety and reliability also will be borne by the Interconnection Customer. Interconnection Customers may be subject to additional control technologies as well as testing and validation of those technologies consistent with Article 6 of the LGIA. The necessary control technologies and protection systems shall be established in Appendix C of the executed, or requested to be filed unexecuted, LGIA.

### **3.2 Identification of Types of Interconnection Services.**

At the time the Interconnection Request is submitted, Interconnection Customer must request either Energy Resource Interconnection Service or Network Resource Interconnection Service, as described below. Interconnection Customer may designate only one type of Interconnection Service for each separate Interconnection Request in the Queue. The type of Interconnection Service must be finalized on submission of the executed Definitive System Impact Study Agreement and may only be changed after the start of the Definitive Study Process between Phase 2 and Phase 3 of the Definitive Interconnection Study Process and only if a Cluster must be re-studied in Phase 3 (See Section 7.4) and otherwise may not be changed.

#### **3.2.1 Energy Resource Interconnection Service.**

##### **3.2.1.1 The Product.**

Energy Resource Interconnection Service allows Interconnection Customer to connect the Large Generating Facility to the Transmission System and be eligible to deliver the Large Generating Facility's output using the existing firm or non-firm capacity of the Transmission System on an "as available" basis. Energy Resource Interconnection Service does not in and of itself convey any right to deliver electricity to any specific customer or Point of Delivery.

##### **3.2.1.2 The Study.**

The study consists of short circuit/fault duty, steady state (thermal and voltage) and stability analyses. The short circuit/fault duty analysis would identify direct

Proposed Effective Date: 12-5-2019

Interconnection Facilities required and the Network Upgrades necessary to address short circuit issues associated with the Interconnection Facilities. The stability and steady state studies would identify necessary upgrades to allow full output of the proposed Large Generating Facility and would also identify the maximum allowed output, at the time the study is performed, of the interconnecting Large Generating Facility without requiring additional Network Upgrades.

### **3.2.2 Network Resource Interconnection Service.**

**3.2.2.1 The Product.** Transmission Provider must conduct the necessary studies and construct the Network Upgrades needed to integrate the Large Generating Facility: (1) in a manner comparable to that in which Transmission Provider integrates its generating facilities to serve native load customers; or (2) in an ISO or RTO with market-based congestion management, in the same manner as Network Resources. Network Resource Interconnection Service allows Interconnection Customer's Large Generating Facility to be designated as a Network Resource, up to the Large Generating Facility's full output, on the same basis as existing Network Resources interconnected to Transmission Provider's Transmission System, and to be studied as a Network Resource on the assumption that such a designation will occur. If the Transmission Provider has not been notified pursuant to Section 29.2 of Part III of the Tariff that Interconnection Customer's proposed Generating Facility is to be designated as a Network Resource within Transmission Provider's Control Area, the Interconnection Customer must provide the point of delivery or the geographic location on PSCo's system at which Interconnection Customer intends to deliver output out of Transmission Provider's Control Area.

**3.2.2.2 The Study.** The Interconnection Study for Network Resource Interconnection Service shall assure that Interconnection Customer's Large Generating Facility meets the requirements for Network Resource Interconnection Service and, as a general matter, that such Large Generating Facility's interconnection is also studied with Transmission Provider's Transmission System at peak load, under a variety of severely stressed conditions, to determine whether, with the Large Generating Facility at full output, the aggregate of generation in the local area can be delivered to the aggregate of load on Transmission Provider's Transmission System, consistent with

Proposed Effective Date: 12-5-2019

Transmission Provider's reliability criteria and procedures. This approach assumes that some portion of existing Network Resources' output is displaced by the output of Interconnection Customer's Large Generating Facility. Network Resource Interconnection Service in and of itself does not convey any right to deliver electricity to any specific customer or Point of Delivery. The Transmission Provider may also study the Transmission System under non-peak load conditions. However, upon request by the Interconnection Customer, the Transmission Provider must explain in writing to the Interconnection Customer why the study of non-peak load conditions is required for reliability purposes.

### **3.3 Utilization of Surplus Interconnection Service.**

Transmission Provider's process below allows an Interconnection Customer to utilize or transfer Surplus Interconnection Service at an existing Point of Interconnection. The original Interconnection Customer or one of its affiliates shall have priority to utilize Surplus Interconnection Service. If the existing Interconnection Customer or one of its affiliates does not exercise its priority, then that service may be made available to other potential Interconnection Customers.

#### **3.3.1 Surplus Interconnection Service Requests.**

Surplus Interconnection Service requests may be made by the existing Interconnection Customer whose Generating Facility is already interconnected or one of its affiliates. Surplus Interconnection Service requests also may be made by another Interconnection Customer. Section 3.3.2 provides a process for evaluating Interconnection Requests for Surplus Interconnection Service. Studies for Surplus Interconnection Service shall consist of reactive power, short circuit/fault duty, stability analyses, and any other appropriate studies. Steady-state (thermal/voltage) analyses may be performed as necessary to ensure that all required reliability conditions are studied. If the Surplus Interconnection Service was not studied under off-peak conditions, off-peak steady state analyses shall be performed to the required level necessary to demonstrate reliable operation of the Surplus Interconnection Service. If the original System Impact Study is not available for the Surplus Interconnection Service, both off-peak and peak analysis may need to be performed for the existing Generating Facility associated with the request for Surplus Interconnection Service. The reactive power, short circuit/fault duty, stability, and steady-state analyses for Surplus Interconnection Service will identify any additional Interconnection Facilities and/or Network Upgrades necessary.

#### **3.3.2 Process for Evaluating Surplus Interconnection Requests and Obtaining Surplus Interconnection Service.**



Proposed Effective Date: 12-5-2019

The following process will be used for evaluating and obtaining Surplus Interconnection Service.

An existing (original) Interconnection Customer whose Generating Facility is already interconnected may choose to, but is not required to, make Surplus Interconnection Service available to potential Interconnection Customers. The original Interconnection Customer retains the ability to use, either for themselves, for an affiliate, or for sale to a third party of their choosing, any Surplus Interconnection Service. The original Interconnection Customer may (a) stipulate the amount of Surplus Interconnection Service that is available, (b) designate when that service is available, and (c) describe any other conditions under which Surplus Interconnection Service at the point of interconnection may be used.

If the original Interconnection Customer makes Surplus Interconnection Service available at its Point of Interconnection, Transmission Provider shall work with the original Interconnection Customer (and the requesting Interconnection Customer, if different) to evaluate that Surplus Interconnection Service. Transmission Provider may accept third-party studies demonstrating no adverse impact to the Transmission Provider's Transmission System, but may require its own or additional studies at its discretion. Transmission Provider will use available studies to the extent applicable. If a Generating Facility interconnected prior to the issuance of Order No. 2003 and does not have an existing Large Generator Interconnection Agreement, it shall be considered to have Interconnection Service up to its installed capacity for purposes of the offering of Surplus Interconnection Service.

The requesting Interconnection Customer shall execute a Surplus Interconnection Study Agreement to evaluate Surplus Interconnection Service in the form of Appendix 5.3, and the Interconnection Customer requesting Surplus Interconnection Service shall be responsible for the cost of such study. Transmission Provider shall study Surplus Interconnection Service outside of the Queue and shall make reasonable efforts to complete the study within sixty (60) days of executing the Surplus Interconnection Study Agreement including the study deposit and receiving data required to perform the study.

Studies for Surplus Interconnection Service shall consist of reactive power, short circuit/fault duty, stability analyses, and any other appropriate studies. Steady-state (thermal/voltage) analyses may be performed as necessary to ensure that all required reliability conditions are studied. If the Surplus Interconnection Service was not studied under off-peak conditions, off-peak steady state analyses shall be performed to the required level necessary to demonstrate reliable operation of the Surplus Interconnection Service. If the

Proposed Effective Date: 12-5-2019

original System Impact Study is not available for the Surplus Interconnection Service, both off-peak and peak analysis may need to be performed for the existing Generating Facility associated with the request for Surplus Interconnection Service. The reactive power, short circuit/fault duty, stability, and steady-state analyses for Surplus Interconnection Service will identify any additional Interconnection Facilities and/or Network Upgrades necessary. Surplus Interconnection Service is only available up to the amount that can be accommodated without requiring new Network Upgrades.

Transmission Provider, original Interconnection Customer, and Surplus Interconnection Customer shall develop a Surplus Interconnection Agreement and other agreements as necessary and file such agreements with the Commission. Such agreements shall, among other things, establish conditions such as the term of operation, the interconnection service limit, and the mode of operation for energy production (i.e., common or singular operation) and the roles and responsibilities of the parties for maintaining the operation of the facility within the parameters of the surplus interconnection service agreement.

Transmission Provider is not required to execute an Interconnection Agreement for Surplus Interconnection Service if the agreements do not meet the definition set forth in their tariff or if the customer does not agree to the terms of such service, including any requirements that may be identified by the Transmission Provider in the studies for Surplus Interconnection Service. If the Surplus Interconnection Customer disputes an issue in the Interconnection Agreement for Surplus Interconnection Service, Transmission Provider must file the unexecuted Surplus Interconnection Service Agreement with the Commission if requested to do so by the Surplus Interconnection Customer.

### **3.4 Valid Interconnection Request.**

#### **3.4.1 Initiating an Interconnection Request.**

An Interconnection Customer wishing to join the Definitive Interconnection Study Process shall submit its Interconnection Request to Transmission Provider within, and no later than the close of the DISIS Request Window. To initiate an Interconnection Request, Interconnection Customer must submit all of the following:

- a. The application fee and study deposit described in Section 3.1;
- b. A completed application in the form of Appendix 1 to the Revised LGIP (including applicable technical information);

Proposed Effective Date: 12-5-2019

Approved Effective Date:

- c. A demonstration of Site Control as defined in Sections 1 and 7.7 of the Revised LGIP. Specifications for acceptable site size for the purposes of demonstrating Site Control are posted on Transmission Provider's OASIS website. Interconnection Customer may propose alternative specifications for site size to those posted on OASIS for Transmission Provider approval. In the event Transmission Provider and Interconnection Customer cannot reach agreement related to adequacy of site size, Transmission Provider will accept a Professional Engineer (licensed in the state of Colorado) stamped site plan drawing that depicts the proposed generation arrangement and specifies the maximum facility output for that arrangement;
- d. A Point of Interconnection;
- e. If the request is for NRIS and if Transmission Provider has not been notified pursuant to Section 29.2 of Part III of the Tariff that Interconnection Customer's proposed Generating Facility is to be designated as a Network Resource within Transmission Provider's Control Area, the point of delivery or the geographic location on Transmission Provider's system at which Interconnection Customer intends to deliver output out of Transmission Provider's Control Area;
- f. A Generating Facility size (MW) (and requested Interconnection Service amount if the requested Interconnection Service is less than the Generating Facility Capacity);
- g. One of the following Readiness Milestone ("M1") options totaling the entire capacity of the Generating Facility (or requested Interconnection Service amount if the requested Interconnection Service is less than the Generating Facility Capacity) or security equal to one times the study deposit described in Section 3.1 in the form of an irrevocable letter of credit or cash *in lieu* of the Readiness Milestone. The security is refunded to the Interconnection Customer according to Section 7.7.5.
- i. Executed term sheet (or comparable evidence) related to a contract, binding upon the parties to the contract, for sale (1) of the constructed Generating Facility, or (2) of the Generating Facility's energy, or (3) of the Generating Facility's ancillary services if the Generating Facility is an electric storage resource; where the term of sale is not less than five (5) years;

Proposed Effective Date: 12-5-2019

- ii. Reasonable evidence that the project has been selected in a Resource Plan or Resource Solicitation Process; or
  - iii. Provisional Large Generator Interconnection Agreement filed with FERC that contains a commitment to move forward with constructing the Generating Facility and is not suspended; and
- h. Security equal one times the study deposit described in Section 3.1 in the form of an irrevocable letter of credit or cash. The security is refunded to the Interconnection Customer according to Section 7.7.5.

The expected In-Service Date of the new Large Generating Facility or increase in capacity of the existing Generating Facility shall be no more than the process window for the regional expansion planning period (or in the absence of a regional planning process, the process window for Transmission Provider's expansion planning period) not to exceed seven (7) years from the date the Interconnection Request is received by Transmission Provider, unless Interconnection Customer demonstrates that engineering, permitting and construction of the new Large Generating Facility or increase in capacity of the existing Generating Facility will take longer than the regional expansion planning period. The In-Service Date may succeed the date the Interconnection Request is received by Transmission Provider by a period up to ten (10) years, or longer where Interconnection Customer and Transmission Provider agree, such agreement not to be unreasonably withheld.

**3.4.2 Acknowledgment of Interconnection Request.**

Transmission Provider shall acknowledge receipt of the Interconnection Request within five (5) Business Days of the close of the DISIS Request Window and attach a copy of the received Interconnection Request to the acknowledgement.

**3.4.3 Deficiencies in Interconnection Request.**

An Interconnection Request will not be considered to be a valid request until all items in Section 3.4.1 have been received by Transmission Provider.

If an Interconnection Request fails to meet the requirements set forth in Section 3.4.1, Transmission Provider shall notify Interconnection Customer within five (5) Business Days of the close of the DISIS Request Window of the reasons for such failure and that the Interconnection Request does not constitute a valid request. Interconnection Customer shall provide Transmission Provider the additional requested information needed to constitute a valid request

Proposed Effective Date: 12-5-2019

Approved Effective Date:

within ten (10) Business Days after receipt of such notice. At any time, if Transmission Provider identifies issues with technical data provided by Interconnection Customer, Interconnection Customer and Transmission Provider shall work expeditiously and in good faith to remedy any data issues. Failure by Interconnection Customer to comply with this Section 3.4.3 shall be treated in accordance with Section 3.7.

Transmission Provider shall determine if the information contained in the Interconnection Request is adequately sufficient to start the Definitive System Impact Study by the close of the Customer Engagement Window.

#### **3.4.4 Scoping Meeting.**

Within ten (10) Business Days after the close of the DISIS Request Window, Transmission Provider shall host an open Scoping Meeting, for all Interconnection Requests received in that DISIS Request Window. If requested by Interconnection Customer, Transmission Provider shall also hold individual customer specific Scoping Meetings, which must be requested no later than fifteen (15) business days after the close of the DISIS Request Window.

The purpose of the Scoping Meeting shall be to discuss alternative interconnection options; to exchange information, including any transmission data that would reasonably be expected to impact such interconnection options; to analyze such information; and to determine the potential feasible Points of Interconnection. Transmission Provider and Interconnection Customer will bring to the meeting such technical data, including, but not limited to: (i) general facility loadings, (ii) general instability issues, (iii) general short circuit issues, (iv) general voltage issues, and (v) general reliability issues as may be reasonably required to accomplish the purpose of the meeting. Transmission Provider and Interconnection Customer will also bring to the meeting personnel and other resources as may be reasonably required to accomplish the purpose of the meeting in the time allocated for the meeting. On the basis of the meeting, Interconnection Customer shall designate its Point of Interconnection, pursuant to Section 7.2. The duration of the meeting shall be sufficient to accomplish its purpose.

### **3.5 OASIS Posting.**

#### **3.5.1 OASIS Posting.**

Transmission Provider will maintain on its OASIS a list of all Interconnection Requests. The list will identify, for each Interconnection Request: (i) the maximum summer and winter megawatt electrical output; (ii) the location by county and state; (iii) the station or transmission line or lines where the interconnection

Proposed Effective Date: 12-5-2019

Approved Effective Date:

will be made; (iv) the projected In-Service Date; (v) the status of the Interconnection Request, including Queue Position; (vi) the type of Interconnection Service being requested; (vii) the availability of any studies related to the Interconnection Request; (viii) the date of the Interconnection Request; (ix) the type of Generating Facility to be constructed (combined cycle, base load or combustion turbine, and fuel type); and (x) for Interconnection Requests that have not resulted in a completed interconnection, an explanation as to why it was not completed. Except in the case of an Affiliate, the list will not disclose the identity of Interconnection Customer until Interconnection Customer executes an LGIA or requests that Transmission Provider file an unexecuted LGIA with FERC. Before holding a Scoping Meeting with its Affiliate, Transmission Provider shall post on OASIS an advance notice of its intent to do so. Transmission Provider shall post to its OASIS site any deviations from the study timelines set forth herein. Interconnection Study reports shall be posted to Transmission Provider's OASIS site subsequent to the meeting between Interconnection Customer and Transmission Provider to discuss the applicable study results. Transmission Provider shall also post any known deviations in the Large Generating Facility's In-Service Date.

Transmission Provider will maintain on its OASIS or its website summary statistics related to processing Interconnection Studies pursuant to Interconnection Requests, updated quarterly. If Transmission Provider posts this information on its website, a link to the information must be provided on Transmission Provider's OASIS site. For each calendar quarter, Transmission Providers must calculate and post the information detailed in sections 3.5.1.1 through 3.5.1.3.

**3.5.1.1 Definitive Study Phase 1 Processing Time.**

- (A) Number of Interconnection Requests that had Phase 1 Studies completed within Transmission Provider's coordinated region during the reporting quarter,
- (B) Number of Interconnection Requests that had Phase 1 Studies completed within Transmission Provider's coordinated region during the reporting quarter that were completed more than ninety (90) Calendar Days after the start of the Phase 1 Study for that Cluster,
- (C) At the end of the reporting quarter, the number of active valid Interconnection Requests with ongoing incomplete Phase 1 Studies where such Phase 1 Studies started more than ninety (90) Calendar Days before the reporting quarter end,

Proposed Effective Date: 12-5-2019

- (D) Mean time (in days), Phase 1 Studies completed within Transmission Provider's coordinated region during the reporting quarter, from the date when Transmission Provider started the Phase 1 Study to the date when Transmission Provider provided the completed Phase 1 Study report to the Interconnection Customer,
- (E) Percentage of Phase 1 Studies exceeding ninety (90) Calendar Days to complete this reporting quarter, calculated as the sum of 3.5.1.1(B) plus 3.5.1.1(C) divided by the sum of 3.5.1.1(A) plus 3.5.1.1(C)).

**3.5.1.2 Definitive Interconnection System Impact Studies Processing Time.**

- (A) Number of Interconnection Requests that had Definitive Interconnection System Impact Studies (Phase 2 or Phase 3) completed within Transmission Provider's coordinated region during the reporting quarter,
- (B) Number of Definitive Interconnection Requests that had Phase 2 or Phase 3 Studies completed within Transmission Provider's coordinated region during the reporting quarter that were completed more than one hundred fifty (150) Calendar Days after start of the respective Phase 2 or Phase 3 Study,
- (C) At the end of the reporting quarter, the number of active valid Interconnection Requests with ongoing incomplete Phase 2 or Phase 3 Studies where such started more than one hundred fifty (150) Calendar Days before the reporting quarter end,
- (D) Mean time (in days), Phase 2 and Phase 3 Studies completed within Transmission Provider's coordinated region during the reporting quarter, from the date when the Phase 2 or Phase 3 Study started to the date when Transmission Provider provided the completed Phase 2 or Phase 3 Study report to the Interconnection Customer,
- (E) Percentage of Phase 2 or Phase 3 Studies exceeding one hundred fifty (150) Calendar Days to complete this reporting quarter, calculated as the sum of 3.5.1.2(B) plus 3.5.1.2(C) divided by the sum of 3.5.1.2(A) plus 3.5.1.2(C)).

**3.5.1.3 Interconnection Facilities Studies Processing Time.**

Proposed Effective Date: 12-5-2019

- (A) Number of Interconnection Requests that had Interconnection Facilities Studies that are completed within Transmission Provider's coordinated region during the reporting quarter,
- (B) Number of Interconnection Requests that had Interconnection Facilities Studies that are completed within Transmission Provider's coordinated region during the reporting quarter that were completed more than ninety (90) Calendar Days after receipt by Transmission Provider of the Interconnection Customer's executed Interconnection Facilities Study Agreement,
- (C) At the end of the reporting quarter, the number of active valid Interconnection Service requests with ongoing incomplete Interconnection Facilities Studies where such Interconnection Requests had executed Interconnection Facilities Studies Agreement received by Transmission Provider more than ninety (90) Calendar Days before the reporting quarter end,
- (D) Mean time (in days), for Interconnection Facilities Studies completed within Transmission Provider's coordinated region during the reporting quarter, calculated from the date when Transmission Provider received the executed Interconnection Facilities Study Agreement to the date when Transmission Provider provided the completed Interconnection Facilities Study to the Interconnection Customer,
- (E) Percentage of delayed Interconnection Facilities Studies this reporting quarter, calculated as the sum of 3.5.1.3(B) plus 3.5.1.3(C) divided by the sum of 3.5.1.3(A) plus 3.5.1.3(C)).

**3.5.1.4 Valid Interconnection Service Requests Withdrawn from Transmission Provider's Definitive Interconnection Study Process Queue.**

- (A) Number of Interconnection Requests withdrawn from Transmission Provider's interconnection queue during the reporting quarter,
- (B) Number of Interconnection Requests withdrawn from Transmission Provider's interconnection queue during the reporting quarter before completion of any interconnection studies or execution of any interconnection study agreements,



Proposed Effective Date: 12-5-2019

- (C) Number of Interconnection Requests withdrawn from Transmission Provider's interconnection queue during the reporting quarter after the start of a Phase 1 study and before completion of an associated Phase 1, Phase 2, or Phase 3 Study,
- (D) Number of Interconnection Requests withdrawn from Transmission Provider's interconnection queue during the reporting quarter after the completion of a System Impact Study Phase (e.g. Phase 2 or Phase 3), but before completion of an Interconnection Facilities Study,
- (E) Number of Interconnection Requests withdrawn from Transmission Provider's interconnection queue after execution of a generator interconnection agreement or Interconnection Customer requests the filing of an unexecuted, new interconnection agreement,
- (F) Mean time (in days), for all withdrawn Interconnection Requests, from the date when the request was determined to be valid to when Transmission Provider received the request to withdraw from the queue.

### **3.5.2 Requirement to Post Interconnection Study Metrics.**

Transmission Provider is required to post on OASIS or its website the measures in paragraph 3.5.1.1(A) through paragraph 3.5.1.4(F) for each calendar quarter within 30 days of the end of the calendar quarter. Transmission Provider will keep the quarterly measures posted on OASIS or its website for three calendar years with the first required report to be in the first quarter of 2020. If Transmission Provider retains this information on its website, a link to the information must be provided on Transmission Provider's OASIS site.

### **3.5.3 Reporting Requirement for Late Studies.**

In the event that any of the values calculated in paragraphs 3.5.1.1(E), 3.5.1.2(E), or 3.5.1.3(E) exceeds 25 percent for two consecutive calendar quarters, Transmission Provider will have to comply with the measures below for the next four consecutive calendar quarters and must continue reporting this information until Transmission Provider reports four consecutive calendar quarters without the values calculated in 3.5.1.1(E), 3.5.1.2(E), or 3.5.1.3(E) exceeding 25 percent for two consecutive calendar quarters:

- (i) Transmission Provider must submit a report to the Commission describing the reason for each study or group of clustered studies pursuant to an Interconnection Request that exceeded its deadline

Proposed Effective Date: 12-5-2019

(i.e., 90, 150 or 90 days) for completion (excluding any allowance for Reasonable Efforts). Transmission Provider must describe the reasons for each study delay and any steps taken to remedy these specific issues and, if applicable, prevent such delays in the future. The report must be filed at the Commission within 45 days of the end of the calendar quarter.

- (ii) Transmission Provider shall aggregate the total number of employee-hours and third party consultant hours expended towards interconnection studies within its coordinated region that quarter and post on OASIS or its website. If Transmission Provider posts this information on its website, a link to the information must be provided on Transmission Provider's OASIS site. This information is to be posted within 30 days of the end of the calendar quarter.

### **3.6 Coordination with Affected Systems.**

Transmission Provider will coordinate the conduct of any studies required to determine the impact of the Interconnection Request on Affected Systems with Affected System Operators and, if possible, include those results (if available) in its applicable Interconnection Study within the time frame specified in this Revised LGIP. Transmission Provider will include such Affected System Operators in all meetings held with Interconnection Customer as required by this Revised LGIP. Interconnection Customer will cooperate with Transmission Provider in all matters related to the conduct of studies and the determination of modifications to Affected Systems. A Transmission Provider which may be an Affected System shall cooperate with Transmission Provider with whom interconnection has been requested in all matters related to the conduct of studies and the determination of modifications to Affected Systems. It is the responsibility of the Affected System Owner to provide the requirements or potential impediments to providing the requested interconnection service, including a preliminary indication of the cost and length of time that would be necessary to (i) complete any interconnection studies and (ii) construct any necessary interconnection facilities and network upgrades needed to reliably interconnect at the requested service level.

### **3.7 Withdrawal.**

Interconnection Customer may withdraw its Interconnection Request at any time by written notice of such withdrawal to Transmission Provider. In addition, if Interconnection Customer fails to adhere to all requirements of this Revised LGIP, except as provided in Section 12.5 (Disputes), Transmission Provider shall deem the Interconnection Request to be withdrawn and shall provide written notice to Interconnection Customer of the deemed withdrawal and an explanation of the reasons for such deemed withdrawal. Upon receipt of such written notice, Interconnection Customer shall have fifteen (15) Business Days in which to either respond with information or actions that cure the deficiency or to notify Transmission Provider of its intent to pursue Dispute Resolution.

Proposed Effective Date: 12-5-2019

Withdrawal shall result in the loss of Interconnection Customer's Queue Position. If Interconnection Customer disputes the withdrawal and loss of its Queue Position, then during Dispute Resolution, Interconnection Customer's Interconnection Request is eliminated from the Queue until such time that the outcome of Dispute Resolution would restore its Queue Position. An Interconnection Customer that withdraws or is deemed to have withdrawn its Interconnection Request shall pay to Transmission Provider all costs that Transmission Provider prudently incurs with respect to that Interconnection Request prior to Transmission Provider's receipt of notice described above. Interconnection Customer must pay all monies due to Transmission Provider before it is allowed to obtain any Interconnection Study data or results.

In the case of a withdrawal, Transmission Provider shall: (i) update the OASIS Queue Position posting; (ii) impose the Withdrawal Penalty described in Section 3.7.1, (iii), refund any security after settling the final invoice (see Section 7.7.5), and (iv) refund to Interconnection Customer any of the refundable portion of Interconnection Customer's study deposit that exceeds the share of the costs that Transmission Provider has incurred, including interest calculated in accordance with section 35.19a(a)(2) of FERC's regulations. In the event of such withdrawal, Transmission Provider, subject to the confidentiality provisions of Section 12.1, shall provide, at Interconnection Customer's request, all information that Transmission Provider developed for any completed study conducted up to the date of withdrawal of the Interconnection Request.

### **3.7.1 Withdrawal Penalty.**

Interconnection Customers shall be subject to a Withdrawal Penalty if they withdraw their request from the Queue or the Generating Facility does not otherwise reach Commercial Operation unless (1) the withdrawal does not negatively affect the timing or cost of equal or lower queued projects; (2) the cost responsibility identified for that Interconnection Customer in the current study report associated with new upgrades to the Transmission Provider's System increased by more than twenty-five percent (25%) compared to the costs identified in the previous report; or (3) if the customer withdraws after the Phase 4 report is published and before providing M5, and the cost responsibility for that Interconnection Customer identified in the Interconnection Facilities Study report (the Phase 4 report) increases by more than one hundred percent (100%) compared to the Phase 2 report.

#### **3.7.1.1 Calculation of the Withdrawal Penalty.**

If the Interconnection Customer provided a demonstration of readiness, that Interconnection Customer's Withdrawal Penalty shall be equal to the higher of the study deposit or one (1) times of its actual allocated cost of the Definitive Interconnection Study Process.

Proposed Effective Date: 12-5-2019

Approved Effective Date:

If the Interconnection Customer did not provide a demonstration of readiness, that Interconnection Customer's Withdrawal Penalty shall be dependent on the Phase in which the Interconnection Customer withdraws and shall be calculated as follows:

1. If the Interconnection Customer withdraws in Phase 1 (after M1, but before M2), the Withdrawal Penalty shall be the higher of the study deposit or two (2) times its actual allocated cost of the Definitive Interconnection Study Process. This amount shall be capped at one (1) million dollars.
2. If the Interconnection Customer withdraws in Phase 2 (after M2, but before M3), the Withdrawal Penalty shall be the higher of the study deposit or three (3) times its actual allocated cost of the Definitive Interconnection Study Process. This amount shall be capped at one and one half (1.5) million dollars.
3. If the Interconnection Customer withdraws in Phase 3 (after M3, but before M4), the study cost obligation shall be the higher of the study deposit or five (5) times its actual allocated cost of the Definitive Interconnection Study Process. This amount shall be capped at two (2) million dollars.
4. If the Interconnection Customer withdraws in Phase 4 (after M4, but before M5), the Withdrawal Penalty shall be the higher of the study deposit or seven (7) times its actual allocated cost of the Definitive Interconnection Study Process. This amount shall be capped at two and a half (2.5) million dollars.

The Withdrawal Penalty for any customer that has executed an LGIA is the higher of the study deposit or nine (9) times its actual allocated cost of the Definitive Interconnection Study Process.

#### **3.7.1.2 Distribution of the Withdrawal Penalty.**

Any Withdrawal Penalty revenues shall be used to fund generation interconnection studies. Withdrawal Penalty revenues shall first be applied, in the form of a bill credit, to not-yet-invoiced study costs for other Interconnection Customers in the same cluster, and to the extent that such studies are fully credited, shall be applied to study costs of future clusters in Queue order. Withdrawn Interconnection Customers shall not receive a bill credit associated with Withdrawal Penalties. Distribution of Withdrawal Penalty

Proposed Effective Date: 12-5-2019

Approved Effective Date:

revenues to a specific study shall not exceed the total actual study costs. Allocation of Withdrawal Penalty revenues within a cluster to a specific customer shall be comparable to the allocation of study costs described in Section 4.2.3. Specifically, the Withdrawal Penalty revenue distribution to each customer in a specific cluster, shall be (1) fifty percent (50%) on a per capita basis based on number of Interconnection Requests in the applicable Cluster; and (2) fifty percent (50%) to Interconnection Customers on a pro-rata basis based on requested megawatts included in the applicable Cluster. Distribution of Withdrawal Penalty revenue associated with Readiness Milestone 5 shall not be distributed to the remaining customers in that cluster until all customers in that cluster have reached Commercial Operation and thereafter shall be distributed as described above. Transmission Provider shall not change the distribution of Withdrawal Penalty revenue without authorization by the Commission. Transmission Provider shall post the Withdrawal Penalty balance on its OASIS site.

### **3.8 Identification of Contingent Facilities.**

Contingent Facilities shall be identified in the Interconnection System Impact Study report including in any subsequent restudies, in the Interconnection Facilities Study report including in any subsequent restudies, and then included in the Interconnection Customer's Large Generator Interconnection Agreement. Transmission Provider shall also provide, upon request of the Interconnection Customer, the estimated interconnection facility and/or network upgrade costs and estimated in-service completion date of each identified Contingent Facility when this information is readily available and not commercially sensitive.

Any unbuilt Interconnection Facility and/or Network Upgrade included in the study model that is necessary as determined through technical studies such as power flow, short circuit and/or stability analysis to accommodate the Interconnection Request, will be identified as a Contingent Facility. Network Upgrades will include both Network Upgrades planned by the Transmission Provider or Affected Systems in the Base Case as well as those Network Upgrades identified for higher queued Interconnection Requests.

In the System Impact Study report including in any subsequent restudies, Transmission Provider is to explain why each listed Contingent Facility was identified as such, and how it relates to the Interconnection Customer's Interconnection Request, such that Interconnection Customer can better understand their potential risk exposure should any such Contingent Facility be delayed or not built.

#### **3.8.1 Method for Identifying Contingent Facilities**

Proposed Effective Date: 12-5-2019

**Step 1** Prior to performing an Interconnection Customer's System Impact Study, Transmission Provider is to review the transmission system and other Affected Systems for any applicable unbuilt facilities (including new Interconnection facilities of higher queued generation) that may be necessary to provide the Interconnection Customer's requested Interconnection Service.

**Step 2** Transmission Provider is to identify all unbuilt facilities as potential Contingent Facilities, including Interconnection Facilities and Network Upgrades in the study region on which the Interconnection Customers costs, timing and study findings are potentially dependent.

**Step 3** Transmission Provider will model each unbuilt facility out of service and perform power flow analysis to identify potential system performance violations per applicable RC, WECC, or NERC requirements due to the absence of the unbuilt facility. When the system performance violation is confirmed, the dependency of each Interconnection Request to the unbuilt facility will be examined by calculating the distribution factor (DFAX) contribution from that Interconnection Request. If DFAX of an Interconnection Request on any single overload is greater or equal to 1% the unbuilt facility will be identified as Contingent Facility for that request.

**Step 4** All unbuilt voltage support facilities within the study pocket are Contingent Facilities for Interconnection Requests in that study pocket.

**Step 5** All future breaker replacements which have a short circuit current contribution from the Interconnection Request are Contingent Facilities.

**Step 6** All planned yet unbuilt transmission projects due to a stability need within the study pocket are Contingent Facilities for Interconnection Requests in that study pocket.

**Step 7** All new Interconnection Facilities and/or Network Upgrades identified by Transmission Provider and Affected Systems to be required for the current Interconnection Request as part of the study are Contingent Facilities for that request.

#### **Section 4. Interconnection Request Evaluation Process.**

##### **4.1 Queue Position.**

###### **4.1.1 Assignment of Queue Position**

Transmission Provider shall assign a Queue Position as follows: the Queue Position within the Queue shall be assigned based upon the date and time of receipt of all items required pursuant to the provisions of Section 3.4. There is no queue for Informational Interconnection Studies.

Proposed Effective Date: 12-5-2019

#### **4.1.2 Higher Queue Position**

A higher Queue Position assigned to an Interconnection Request is one that has been placed “earlier” in the Queue in relation to another Interconnection Request that is assigned a lower Queue Position. All requests studied in a single Cluster shall be considered equally queued but Clusters initiated earlier in time shall be considered to have a higher Queue Position than clusters initiated later. The Queue Position of an Interconnection Request shall have no bearing on the allocation of the cost of the common upgrades identified in the applicable Cluster Study (such costs will be allocated among Interconnection Requests in accordance with Section 4.2.4). Moving a Point of Interconnection shall result in a loss of Queue Position if it is deemed a Material Modification under Section 4.4.3.

#### **4.2 General Study Process.**

The diagram attached as Appendix A-1 provides an overview and timeline of initiation of a Definitive Interconnection Study: the DISIS Request Window, Customer Engagement Window, and Phase 1 of the DISIS.

Cluster Studies performed within the Definitive Interconnection Study Process shall be conducted in such a manner to ensure the efficient implementation of the applicable regional transmission expansion plan in light of the Transmission System's capabilities at the time of each study.

##### **4.2.1 Initiation of a Definitive Interconnection System Impact Study Cluster.**

Transmission Provider shall accept Interconnection Requests during a forty five (45) Calendar Day period, hereinafter referred to as the “DISIS Request Window.” A DISIS Request Window shall open annually on February 1<sup>st</sup> and close 45 Calendar Days thereafter or the following Business Day if the 45<sup>th</sup> day falls on a weekend or NERC recognized holiday. A second DISIS Request Window shall open annually on August 1<sup>st</sup> and close on 45 Calendar Days thereafter or the following Business Day if the 45<sup>th</sup> day falls on a weekend or NERC recognized holiday.

If one or more valid requests are received, for seventy-five (75) Calendar Days following the close of the DISIS Request Window (the “Customer Engagement Window”), Transmission Provider shall work with applicable Interconnection Customers to build models, verify data, hold stakeholder meetings (including Scoping Meetings, as appropriate), work with requestors to cure any deficiencies in the Interconnection Request, and generally prepare for the start of the Definitive Interconnection System Impact Study. Notwithstanding the preceding sentence and upon written consent of all Interconnection Requests for a specific Cluster, Transmission Provider may shorten the “Customer Engagement Window” in order to start the Definitive

Proposed Effective Date: 12-5-2019

Interconnection System Impact Study earlier. Within the first ten (10) Business Days following the close of the DISIS Request Window, Transmission Provider shall post on its OASIS site a list of Interconnection Requests for that Cluster. The list shall identify, for each Interconnection Request: (i) the requested amount of Interconnection Service; (ii) the location by county and state; (iii) the station or transmission line or lines where the interconnection will be made; (iv) the projected In-Service Date; (v) the type of Interconnection Service (vi) cluster being requested; and (vi) the type of Generating Facility to be constructed including fuel type such as wind, natural gas, coal, or solar.

At the end of the Customer Engagement Window, all Interconnection Requests deemed sufficient that have an executed DISIS Agreement shall be included in that DISIS Cluster. Any Interconnection Requests not deemed sufficient or undergoing Dispute Resolution at the close of the Customer Engagement Window shall not be included in that DISIS Cluster. Immediately following the Customer Engagement Window, Transmission Provider shall initiate the Definitive Interconnection System Impact Study described in more detail in Section 7.

#### **4.2.2 Initiation of a Resource Solicitation Cluster.**

At any time, and upon request of a Resource Planning Entity, Transmission Provider may initiate the study of a Resource Solicitation Cluster. The Resource Solicitation Cluster shall respect Queue Position and shall be studied as its own Cluster. Within ten (10) Business Days of receipt of a request to perform a Resource Solicitation Cluster that includes valid Interconnection Requests as described in Section 3.4, Transmission Provider and Resource Planning Entity shall meet to determine a mutually agreeable scope of study and timeframe to initiate the Resource Solicitation Cluster. The timeline shall indicate the close of the Customer Engagement Window for that Resource Solicitation Cluster. Thereafter the Definitive Interconnection System Impact Study shall proceed as described in Section 7.

In order to initiate Transmission Provider's study of Interconnection Requests made in connection with a Resource Solicitation Process, Resource Planning Entity must: (a) act as the authorized representative for all Interconnection Requests submitted to the Resource Solicitation Cluster; (b) submit all Interconnection Requests arising from the Resource Solicitation Process at the same time to ensure an equal Queue Position for all Generating Facilities included in the Resource Solicitation Cluster; (c) cooperate with Transmission Provider in conducting the studies; and (d) request a reasonable number of different combinations of such Interconnection Requests to meet Resource Planning Entity's identified need and assumptions in



Proposed Effective Date: 12-5-2019

Approved Effective Date:

the Resource Solicitation Process. Such studies in connection with a Resource Solicitation Process shall be implemented based upon Queue Position (relative to higher or lower queued clusters) and shall consider Resource Planning Entity's needs and assumptions identified in the Resource Solicitation Process.

The Resource Planning Entity may submit for inclusion in the Resource Solicitation Process an Interconnection Request for a Generating Facility that already has a higher Queue Position pursuant to Section 4.1.1. A Generating Facility that initially is associated with a Queue Position through the Resource Solicitation Process may also reserve a lower Queue Position separate from the Resource Solicitation Process pursuant to Section 4.1.1. In either case, Interconnection Customer must meet all requirements associated with maintaining each Queue Position for the Generating Facility. In the event a Generating Facility has multiple Queue Positions, it shall not be double counted in the study models.

A Generating Facility in the Resource Solicitation Process is subject to study according to the Queue Position of the Resource Solicitation Cluster. A Generating Facility that is not a part of the Resource Solicitation Process is also subject to study according to its Queue Position. All studies must be performed in accordance with the provisions of the Revised LGIP, and may not be delayed as a result of the Resource Solicitation Process.

After Transmission Provider completes the Definitive Interconnection System Impact Studies for the requested combinations, the results will be provided (Phase 1 Reports, Phase 2 Reports, Phase 3 Reports, etc.; as applicable under Section 7.4) to the Resource Planning Entity for use in the Resource Solicitation Process. The results will be posted on Transmission Provider's OASIS consistent with the posting of other study results.

After receipt of the Phase 2 Report, Resource Planning Entity must select one of the studied combinations prior to the commencement of any Interconnection Facilities Study associated with the Resource Solicitation Process. Prior to the completion of the Interconnection Facilities Study of all of the components of the selected combination, Resource Planning Entity may replace components, subject to any necessary Re-Study pursuant to Sections 7.6 or 8.5. While conducting the Definitive Interconnection Study Process, Transmission Provider may suspend further action on the Interconnection Requests in the Resource Solicitation Process that are not included in the selected combination. Once a Generating Facility is rejected in the Resource Solicitation Process, the Generating Facility shall lose the Queue Position it held as part of the Resource Solicitation Process. If a Generating Facility is selected by Resource Planning Entity at the

Proposed Effective Date: 12-5-2019

conclusion of the Resource Solicitation Process, the Generating Facility may no longer maintain more than one Queue Position.

**4.2.3 Study Cost Allocation.**

Transmission Provider shall determine each Interconnection Customer's share of the DISIS costs of a Cluster Study by allocating: (1) fifty percent (50%) of the applicable study costs to Interconnection Customers on a per capita basis based on number of Interconnection Requests included in the applicable Cluster; and (2) fifty percent (50%) of the applicable study costs to Interconnection Customers on a pro-rata basis based on requested megawatts included in the applicable Cluster. For instance, the cost of a cluster study consisting of a 100 MW request and a 900 MW request would be allocated 30% to the 100 MW request and 70% to the 900 MW request. The Interconnection Facilities Study portion of the Definitive Interconnection Study Process is an individual study and costs for each Interconnection Facilities Study is directly assigned to the Interconnection Customer associated with such study.

**4.2.4 Transmission Provider's Interconnection Facilities and Network Upgrade Cost Allocation.**

For Transmission Provider's Interconnection Facilities and Network Upgrades identified in Cluster Studies, Transmission Provider shall calculate each Interconnection Customer's share of costs in the following manner:

- a) Station equipment Network Upgrades, including all switching stations, shall be allocated based on the number of Generating Facilities interconnecting at an individual station on a per capita basis (i.e. on a per Interconnection Request basis). If multiple Interconnection Customers are connecting to the Transmission Provider's System through a single Interconnection Customer's Interconnection Facility (i.e. sharing the Interconnection Customer's Interconnection Facility connecting to the Transmission Provider's Interconnection Facility(ies)), those Interconnection Customers shall be considered one Interconnection Customer for the per capita calculation described in the preceding sentence. Shared Transmission Provider's Interconnection Facilities shall be allocated based on the number of Generating Facilities sharing that Transmission Provider's Interconnection Facility on a per capita basis.

Proposed Effective Date: 12-5-2019

Approved Effective Date:

- b) All Network Upgrades other than those identified in Section 4.2.4.a will be allocated based on the proportional impact of each individual Generating Facility in the Cluster Studies on such Network Upgrades. The proportional impact of such Network Upgrades shall be calculated as follows. All transmission lines and transformers identified as Network Upgrades shall be allocated using distribution factor analysis. Voltage support related Network Upgrades shall be allocated using a voltage impact analysis which will identify each Generating Facility's contribution to the voltage violation. Network Upgrades associated with upgrading existing breakers not physically located at the substation to which the Generating Facility is interconnecting or associated with a new transmission facility shall be allocated based on short circuit analysis.
- c) Costs of Transmission Provider's Interconnection Facilities are directly assigned to the Interconnection Customer(s) using such facilities.

Interconnection Customer funding of Network Upgrades are eligible for credits as provided in Section 11.4 of the LGIA.

#### **4.3 Transferability of Queue Position.**

An Interconnection Customer may transfer its Queue Position to another entity only if such entity acquires the specific Generating Facility identified in the Interconnection Request and the Point of Interconnection does not change.

#### **4.4 Modifications.**

Interconnection Customer shall submit to Transmission Provider, in writing, modifications to any information provided in the Interconnection Request. Interconnection Customer shall retain its Queue Position if the modifications are in accordance with Sections 4.4.1, 4.4.2, 4.4.5, or are determined not to be Material Modifications pursuant to Section 4.4.3.

Notwithstanding the above, during the course of the Interconnection Studies, either Interconnection Customer or Transmission Provider may identify changes to the planned interconnection that may improve the costs and benefits (including reliability) of the interconnection, and the ability of the proposed change to accommodate the Interconnection Request. Subject to the forgoing sentence, and provided, however, they do not result in a material modification, to the extent the identified changes are acceptable to Transmission Provider, Interconnection Customer and potentially impacted Interconnection Customers in the same Cluster, such acceptance not to be unreasonably withheld, Transmission Provider shall modify the Point of Interconnection and/or configuration in accordance with such changes and proceed with any re-studies necessary to do so in accordance with Section 7.6 and Section 8.5 as applicable and Interconnection Customer shall retain its Queue Position.

Proposed Effective Date: 12-5-2019

Approved Effective Date:

- 4.4.1** No later than forty (40) Calendar Days after the close of the DISIS Request Window and prior to the return of the executed Definitive Interconnection System Impact Study Agreement to Transmission Provider, the modifications permitted under this Section shall include specifically: (a) a decrease of up to sixty percent (60%) of electrical output (MW) of the proposed project, through either (1) a decrease in plant size, or (2) a decrease in Interconnection Service level (consistent with the process described in Section 3.1) accomplished by applying Transmission Provider-approved injection-limiting equipment; (b) modifying the technical parameters associated with the Large Generating Facility technology or the Large Generating Facility step-up transformer impedance characteristics; and (c) modifying the interconnection configuration. For plant increases, the incremental increase in plant output will go to the end of the Queue for the purposes of cost allocation and study analysis.
- 4.4.2** Prior to the return of the executed Interconnection Facilities Study Agreement to Transmission Provider, the modifications permitted under this Section shall include specifically: (a) fifteen percent (15%) decrease of electrical output of the proposed project through either (1) a decrease in in plant size (MW), or (2) a decrease in Interconnection Service level (consistent with the process described in Section 3.1) accomplished by applying Transmission Provider-approved injection-limiting equipment; (b) Large Generating Facility technical parameters associated with modifications to Large Generating Facility technology and transformer impedances; provided, however, the incremental costs associated with those modifications are the responsibility of the requesting Interconnection Customer; and (c) a Permissible Technological Advancement for the Large Generating Facility after the submission of the Interconnection Request. Section 4.4.6 specifies a separate technological change procedure including the requisite information and process that will be followed to assess whether the Interconnection Customer's proposed technological advancement under Section 4.4.2(c) is a Material Modification. Section 1 contains a definition of Permissible Technological Advancement.
- 4.4.3** Prior to making any modification other than those specifically permitted by Sections 4.4.1, 4.4.2, and 4.4.5, Interconnection Customer may first request that Transmission Provider evaluate whether such modification is a Material Modification. In response to Interconnection Customer's request, Transmission Provider shall evaluate the proposed modifications prior to making them and inform Interconnection Customer in writing of whether the modifications would constitute a Material Modification. Any change to the Point of Interconnection, except those deemed acceptable under Sections 4.4.1, or so allowed elsewhere, shall constitute a Material Modification. Interconnection Customer may then withdraw the

Proposed Effective Date: 12-5-2019

proposed modification or proceed with a new Interconnection Request for such modification.

**4.4.4** Upon receipt of Interconnection Customer's request for modification permitted under this Section 4.4, Transmission Provider shall commence and perform any necessary additional studies as soon as practicable, but in no event shall Transmission Provider commence such studies later than thirty (30) Calendar Days after receiving notice of the modification of Interconnection Customer's request. Any additional studies resulting from such modification shall be performed at Interconnection Customer's cost.

**4.4.5** Extensions of less than three (3) cumulative years in the Commercial Operation Date of the Generating Facility to which the Interconnection Request relates are not material and should be handled through construction sequencing. The initial requested Commercial Operation Date used for this calculation is determined from the date proposed in the initial Interconnection Request (Revised LGIP Appendix 1 Section 4.d). Such cumulative extensions are inclusive of extensions requested after execution by Interconnection Customer of the LGIA.

**4.4.6 Technological Change Procedure.**  
The technological change procedure included in this Section 4.4.6 will be followed to assess whether Interconnection Customer's proposed modification is a Material Modification.

**4.4.6.1 Technological Change Request.**

If an Interconnection Customer seeks to incorporate a technological advancement into its existing Interconnection Request, it must submit a Technological Change Request (TCR) as described below to the Transmission Provider in writing any time prior to the return of the signed Interconnection Facilities Study Agreement.

The Interconnection Customer's TCR shall include a description of the proposed change, a \$10,000 study deposit and the following information: (1) updated technical data called for in Attachment A of Appendix 1; (2) type and specifications of equipment being replaced; updated modeling information; (3) make and model of new equipment; (4) dynamic, steady-state and performance characteristics of the new equipment; (5) efficiencies, impedances, and ratings of the equipment; (6) and technical analysis demonstrating that the technological change would (i) result in electrical performance that is equal to or better than the electrical performance expected prior to the technological change, and (ii) not cause any reliability concerns. The customer's analysis should contain

Proposed Effective Date: 12-5-2019

engineering evidence and reasoning that clearly demonstrates the proposed change aligns with the definition of a Permissible Technological Advancement. Accordingly, a TCR should demonstrate that the proposed incorporation of the technological advancement would result in electrical performance that is equal to or better than the electrical performance expected prior to the technology change and would not cause any reliability concerns (i.e., would not materially impact the transmission system with regard to short circuit capability limits, steady-state thermal and voltage limits, or dynamic system stability and response).

Upon receipt by the Transmission Provider of a completed TCR from the Interconnection Customer, the Transmission Provider will evaluate the TCR to determine whether the TCR is a Permissible Technological Advancement or if it necessitates the performance of additional analyses and/or studies. If the technological change request has no adverse effect on electrical parameters or performance, the technological advancement request will not be considered a Material Modification and will be deemed a Permissible Technological Advancement.

If the Transmission Provider determines that additional analyses and/or studies are required, Transmission Provider's studies may include steady-state, reactive power, short circuit, stability analysis and any other appropriate studies that the Transmission Provider deems necessary based on the Transmission Provider's engineering judgment. These additional studies and/or analyses will determine whether the technological change results in electrical performance that is equal to or better than the electrical performance expected prior to the technological change request and be deemed a Permissible Technological Advancement, or if the technological change is deemed a Material Modification.

Transmission Provider shall complete the evaluation as soon as practical but no later than thirty (30) Calendar Days after the receipt of the completed TCR.

Transmission Provider will produce a report that will state if the technological advancement is permissible. If the proposed technology fails to meet the definition of a Permissible Technological Advancement, then the TCR is deemed to be a Material Modification. In such cases, the study report shall provide an explanation regarding why the technological change is a Material Modification. The Interconnection Customer can choose to abandon the

Proposed Effective Date: 12-5-2019

request and retain its queue position or choose to proceed with the request and reenter the queue with a new queue position.

If the study determines that the proposed technology meets the definition of a Permissible Technological Advancement the modification is approved and will be incorporated into the Interconnection Request. Study reports may be updated if appropriate. Once the Permissible Technological Advancement is approved and incorporated into the Interconnection Request; a new TCR would be required for the Interconnection Customer to revert back to the original equipment or make additional modifications to equipment.

Transmission Provider shall either refund any overage or charge for any shortage for costs of the study that exceed the deposit amount. The studies associated with the TCR shall be billed separately from other Interconnection Studies.

## **Section 5. Transition Procedures.**

### **5.1 Procedures for Transitioning to the First-Ready, First-Served Revised LGIP.**

**5.1.1** An Interconnection Customer assigned a Queue Position prior to September 27, 2019, shall retain that Queue Position subject to the requirements in Sections 5.1.1.1 and 5.1.1.2. An Interconnection Customer that fails to meet these requirements shall have its Interconnection Request deemed withdrawn pursuant to Section 3.7. Any unused deposit amounts of withdrawn Interconnection Requests shall be returned pursuant to Section 3.7. If an Interconnection Customer elects to continue with a Transitional Serial Interconnection Facilities Study or a Transitional Cluster Study as described below, Transmission Provider shall retain the current study deposits, and Interconnection Customer shall be responsible for the entire cost of all studies pursuant to Sections 4.2.3 and 12.3.

#### **5.1.1.1 Transitional Serial Projects.**

An Interconnection Customer that has a) a final System Impact Study Report that identifies facilities required to feasibly interconnect and b) an Interconnection Facilities Study Agreement that was executed prior to September 27, 2019, may opt to continue with the Interconnection Facilities Study process if the Interconnection Customer: (1) meets each of the following requirements that demonstrate readiness; and (2) executes a Transitional Serial Interconnection Facilities Study Agreement in the form of

Proposed Effective Date: 12-5-2019

Appendix 4 to the Revised LGIP within thirty (30) Calendar Days of the Effective Date of this Revised LGIP. All of the following are required:

- a) A deposit on the Transmission Provider's Interconnection Facilities and Network Upgrades identified in the System Impact Study Report. The deposit shall be equal to one hundred percent (100%) of the costs identified for Transmission Provider's Interconnection Facilities and Network Upgrades in the System Impact Study Report and will be reconciled to actual costs after the associated facilities are in-service. If the Interconnection Customer does not withdraw, the deposit shall be reconciled with and applied towards future construction costs described in the LGIA. If the Interconnection Customer withdraws or otherwise does not reach Commercial Operation, the deposit is fully refundable once the final invoice for study costs and Withdrawal Penalty is settled. The deposit shall be in the form of an irrevocable letter of credit upon which the Transmission Provider may draw or cash where cash deposits will be treated according to Section 7.7.5.
- b) Exclusive Site Control for the entire Generating Facility and any Interconnection Customer's Interconnection Facilities.
- c) Interconnection Customer shall provide one following:
  - i. A contract, binding upon the parties to the contract, for sale of the Generating Facility's energy, or the entire constructed Generating Facility; where the term of sale is not less than five (5) years, or
  - ii. Reasonable evidence that the Generating Facility is included in an approved Resource Plan or Resource Solicitation Process, or
  - iii. An executed Provisional Large Generator Interconnection Agreement filed with FERC. Such an agreement shall not be suspended and shall include a commitment to construct the Generating Facility.

All LGIA negotiations shall be completed and the LGIA executed (or filed unexecuted) within sixty (60) Calendar



Proposed Effective Date: 12-5-2019

Days of the publication of the final Interconnection Facilities Study Report or the Interconnection Request shall be deemed withdrawn pursuant to Section 3.7 unless extended by mutual agreement of Transmission Provider and Interconnection Customer. A change in the Commercial Operation Date shall not delay the construction of facilities if such delay negatively affects lower or equal queued projects. If the Interconnection Customer withdraws or otherwise does not reach Commercial Operation, a Withdrawal Penalty equal to nine (9) times the Interconnection customer's total study cost is imposed.

**5.1.1.2 Combined System Impact and Interconnection Facilities Transitional Cluster Study.**

An Interconnection Customer with an assigned Queue Position prior to September 27, 2019, may opt to enter the combined system impact and interconnection facilities transitional cluster study ("Transitional Cluster Study") if the Interconnection Customer: (1) meets each of the following requirements that demonstrate readiness; and (2) executes a Transitional Cluster Study Agreement in the form of Appendix 5.1 to the Revised LGIP within thirty (30) Calendar Days of the Effective Date of this Revised LGIP. All Interconnection Requests that enter the Transitional Cluster Study shall be considered to have an equal Queue Position, and identified upgrade costs shall be allocated according to Section 4.2.4 of the Revised LGIP. The Transitional Cluster Study costs shall be allocated according to the method described in Section 4.2.3. Interconnection Customer may make a one-time extension to its requested Commercial Operation date upon entry into the Transitional Cluster Study and such an extension shall not be past 2023.

All of the following are required:

- a) Choice of requesting either ERIS or NRIS
- b) A deposit on the Transmission Provider's Interconnection Facilities and Network Upgrades expected to be identified in the Transitional Cluster Study. The deposit shall be equal to five million dollars (\$5,000,000) and be in the form of an irrevocable letter of credit upon which the Transmission Provider may draw or cash where cash deposits will be treated according to Section 7.7.5. If the Interconnection Customer does not withdraw, the deposit shall be reconciled with and applied towards future construction costs described in the LGIA. Any amounts in excess of

Proposed Effective Date: 12-5-2019

the actual construction costs shall be returned to the customer. If the Interconnection Customer withdraws or otherwise does not reach Commercial Operation, the deposit is fully refundable once the final invoice for study costs and Withdrawal Penalty is settled.

- c) Exclusive Site Control for the entire Generating Facility.
- d) Interconnection Customer shall provide one following:
  - i. A contract, binding upon the parties to the contract, for sale of the Generating Facility's energy, or the entire constructed Generating Facility; where the term of sale is not less than five (5) years, or
  - ii. Reasonable evidence that the Generating Facility is included in an approved Resource Plan or Resource Solicitation Process, or
  - iii. An executed Provisional Large Generator Interconnection Agreement filed with FERC that is not in suspension with 1) a commitment to construct the facility, 2) a Commercial Operation Date no later than 2023 and 3) a security deposit in addition to the five million dollars identified in 5.1.1.2.a where the total security deposit represents a reasonable estimation of the potential costs that could be ultimately allocated to the project in the transitional cluster study.

After the Transitional Cluster Study report is published, the remaining process shall proceed according to Section 10 of this Revised LGIP. All LGIA negotiations shall be completed and the LGIA executed (or filed unexecuted) within sixty (60) Calendar Days of the tender of the draft LGIA or the Interconnection Request is deemed withdrawn unless extended by mutual agreement of Transmission Provider and Interconnection Customer. A change in the Commercial Operation Date shall not delay the construction of Transmission Provider's Interconnection Facilities or Network Upgrades if such delay negatively affects lower or equal queued projects.

If the Interconnection Customer withdraws or otherwise does not reach Commercial Operation, a Withdrawal Penalty equal to nine (9) times the Interconnection customer's total study cost is imposed.

Proposed Effective Date: 12-5-2019

## **5.2 New Transmission Provider.**

If Transmission Provider transfers control of its Transmission System to a successor Transmission Provider during the period when an Interconnection Request is pending, the original Transmission Provider shall transfer to the successor Transmission Provider any amount of the deposit or payment with interest thereon that exceeds the cost that it incurred to evaluate the request for interconnection. Any difference between such net amount and the deposit or payment required by this Revised LGIP shall be paid by or refunded to the Interconnection Customer, as appropriate. The original Transmission Provider shall coordinate with the successor Transmission Provider to complete any Interconnection Study, as appropriate, that the original Transmission Provider has begun but has not completed.

If original Transmission Provider has tendered a draft LGIA to Interconnection Customer, but Interconnection Customer has not either executed the LGIA or requested the filing of an unexecuted LGIA with FERC, unless otherwise provided, Interconnection Customer must complete negotiations with the successor Transmission Provider.

## **Section 6. Informational Interconnection Study.**

### **6.1 Informational Interconnection Study Agreement.**

At any time, a customer may request, and Transmission Provider (either itself or through a consultant) shall perform a reasonable number of Informational Interconnection Studies. Provisional Interconnection Service maybe requested based on the results of the Informational Interconnection Study. Interconnection Customer shall submit a separate Informational Interconnection Request for each site and may submit multiple Informational Interconnection Requests for a single site. Interconnection Customer must submit a deposit with each Informational Interconnection Request even when more than one request is submitted for a single site. An Informational Interconnection Request to evaluate one site at two different voltage levels shall be treated as two Informational Interconnection Requests. The request shall use the form in Appendix 5.4 of the Revised LGIP and shall describe the assumptions that Interconnection Customer wishes Transmission Provider to study within the scope described in Section 6.2 of the Revised LGIP below. Within five (5) Business Days after receipt of a request for an Informational Interconnection Study, Transmission Provider shall provide to Interconnection Customer an Informational Interconnection Study Agreement in the form of Appendix 5.5.

The Informational Interconnection Study Agreement shall: (i) include the scope of work for the Informational Interconnection Study (ii) specify the technical data that Interconnection Customer must provide, (iii) specify the Informational Interconnection Study case and assumptions, and (iv) identify the Transmission Provider's estimate of the cost of the Informational Interconnection Study. To the extent known by Transmission Provider, such estimate shall include any costs expected to be incurred by any Affected System whose participation is necessary to complete the Informational Interconnection Study. Notwithstanding the above,

Proposed Effective Date: 12-5-2019

Transmission Provider shall not be required as a result of an Informational Interconnection Study request to conduct any additional Interconnection Studies with respect to any other Interconnection Request.

Interconnection Customer shall execute the Informational Interconnection Study Agreement within ten (10) Business Days of receipt of an agreed upon scope of work and deliver the Informational Interconnection Study Agreement, the technical data, and a \$10,000 deposit to Transmission Provider.

**6.2 Scope of Informational Interconnection Study.**

The intent of the Informational Interconnection Study is to aid Interconnection Customer in its business decisions related to interconnection of generation facilities prior to entering the Definitive Interconnection Process. The Informational Interconnection Study shall consist of analysis based on the assumptions and scope of work specified by Interconnection Customer in the Informational Interconnection Study Agreement. The Informational Interconnection Study shall identify the potential Transmission Provider's Interconnection Facilities and the Network Upgrades, and the estimated cost thereof, that may be required to provide transmission service or Interconnection Service based upon the results and assumptions of the Informational Interconnection Study. The Informational Interconnection Study shall be performed solely for informational purposes. Transmission Provider shall use Reasonable Efforts to coordinate the study with any Affected Systems that may be affected by the types of Interconnection Services that are being studied. Transmission Provider shall utilize existing studies to the extent practicable in conducting the Informational Interconnection Study.

**6.3 Informational Interconnection Study Procedures.**

The executed Informational Interconnection Study Agreement, the deposit, and technical and other data called for therein must be provided to Transmission Provider within ten (10) Business Days of Interconnection Customer receipt of the Informational Interconnection Study Agreement. Transmission Provider shall use Reasonable Efforts to complete the Informational Interconnection Study within a mutually agreed upon time period specified within the Informational Interconnection Study Agreement. If Transmission Provider is unable to complete the Informational Interconnection Study within such time period, it shall notify Interconnection Customer and provide an estimated completion date and an explanation of the reasons why additional time is required. Any difference between the study payment and the actual cost of the study shall be paid to Transmission Provider or refunded to Interconnection Customer, as appropriate. Upon request, Transmission Provider shall provide Interconnection Customer supporting documentation and work papers and databases or data developed in the preparation of the Informational Interconnection Study, subject to confidentiality arrangements consistent with Section 12.1.

**Section 7. Phase 1 through 3 of the Definitive Interconnection Study Process.**

**7.1 Definitive Interconnection System Impact Study Agreement.**

Proposed Effective Date: 12-5-2019

Unless otherwise agreed, pursuant to the Scoping Meeting provided for in Section 3.4.4, within thirty (30) Calendar Days acknowledgement of a valid Interconnection Request indicating that a Definitive Interconnection System Impact Study is to be performed, Transmission Provider shall provide to Interconnection Customer a DISIS Agreement in the form of Appendix 2 to this Revised LGIP. The DISIS Agreement shall provide that Interconnection Customer shall compensate Transmission Provider for the actual cost of the DISIS. At least seven (7) Calendar Days before the close of a Customer Engagement Window, Transmission Provider shall provide to Interconnection Customer a non-binding updated good faith estimate of the cost and timeframe for completing the Definitive Interconnection System Impact Study.

**7.2 Execution of Definitive Interconnection System Impact Study Agreement.**

Interconnection Customer shall execute the DISIS Agreement and deliver the executed DISIS Agreement to Transmission Provider no later than the close of the Customer Engagement Window.

**7.3 Scope of Definitive Interconnection System Impact Study.**

The Definitive Interconnection System Impact Study shall evaluate the impact of the proposed interconnection on the reliability of the Transmission System. The Definitive Interconnection System Impact Study will consider the Base Case as well as all generating facilities (and with respect to (iii) below, any identified Network Upgrades associated with such higher queued requests) that, on the date the DISIS Request Window closes: (i) are existing and directly interconnected to the Transmission System; (ii) are existing and interconnected to Affected Systems and may have an impact on the Interconnection Request; (iii) have a pending higher queued Interconnection Request to interconnect to the Transmission System; and (iv) have no Queue Position but have executed an LGIA or requested that an unexecuted LGIA be filed with FERC. Generating facilities with pending higher or equal queued NRIS requests, or requests associated with Firm Transmission Service shall generally be modeled at full output while existing generation may be re-dispatched to accommodate new requests in the model. Higher queued ERIS requests or in-service ERIS generators without associated Firm Transmission Service may be dispatched at zero in some study models. If the total requests for NRIS in a Cluster exceeds or otherwise cannot be sunk to the Network Load projected in the Base Case, such exceedance shall be assumed to be delivered outside of the Transmission System. In-service generation in the study model may be re-dispatched in the DISIS, but generally will not be studied at less than its minimum operating limit unless the generation owner agrees the Generating Facility should be modeled as if retired. Existing generation dispatch will be used, for instance, to maintain reliability and stress the system as appropriate.

As discussed in more detail in Section 7.4 below, the Definitive Interconnection System Impact Study is a phased study where the first phase (Phase 1) consists of a power flow and voltage analysis that is followed by a phase (Phase 2) that consists of a short circuit analysis and a stability analysis. Any DISIS re-studies (Phase 3) shall consist of a power flow/voltage analysis, a short circuit analysis,

Proposed Effective Date: 12-5-2019

and/or a stability analysis as needed. The Definitive Interconnection System Impact Study report will state the assumptions upon which it is based; state the results of the analyses; and provide the requirements or potential impediments to providing the requested interconnection service, including a preliminary indication of the cost and length of time that would be necessary to correct any problems identified in those analyses and implement the interconnection. For purposes of determining necessary Interconnection Facilities and Network Upgrades, the Definitive Interconnection System Impact Study shall consider the level of Interconnection Service requested by the Interconnection Customer, unless otherwise required to study the full Generating Facility Capacity due to safety or reliability concerns. The Definitive Interconnection System Impact Study will provide a list of facilities that are required as a result of the Interconnection Request and a non-binding good faith estimate of cost responsibility and a non-binding good faith estimated time to construct.

#### **7.4 Definitive Interconnection System Impact Study Procedures.**

Transmission Provider shall coordinate the Definitive Interconnection System Impact Study with any Affected System that is affected by the Interconnection Request pursuant to Section 3.6 above. Transmission Provider shall utilize existing studies to the extent practicable when it performs the DISIS. Interconnection Requests for DISIS may be submitted only within the DISIS Request Window and Transmission Provider shall initiate the Definitive Interconnection Study Process pursuant to Section 4.2.1.

The diagrams attached as Appendix A-2 provides an overview and timeline of the Definitive Interconnection Study Process, including the Phases and milestones associated with the Definitive Interconnection System Impact Study.

- a. The DISIS Cluster shall consist of all eligible Interconnection Requests that have executed a DISIS Agreement and have provided all required information before the close of the Customer Engagement Window. Transmission Provider shall use Reasonable Efforts to complete the first phase (Phase 1) consisting of a power flow and voltage analysis within ninety (90) Calendar Days. The Phase 1 Report shall identify Transmission Provider's Interconnection Facilities and Transmission Provider's Network Upgrades that are expected to be required as a result of the Interconnection Request(s) and a non-binding good-faith indicative level estimate of cost responsibility and a non-binding good-faith estimated time to construct. Transmission Provider shall hold an open stakeholder meeting ("Phase 1 Report Meeting") within ten (10) Business Days of publishing the DISIS Phase 1 results on OASIS.
- b. Within twenty (20) Calendar Days of the Phase 1 Report Meeting, all Interconnection Customers are required to provide Readiness Milestone 2 ("M2") and continued evidence of Site Control as described in Section 7.7. Interconnection Customers that do not provide the Readiness Milestone (or provide security *in lieu* of the Readiness Milestone) or do not provide Site

Proposed Effective Date: 12-5-2019

Control described in Section 7.7.7. by the required date shall be deemed withdrawn from the Queue pursuant to Section 3.7.

- c. Interconnection Customers whose M2 and Site Control are accepted by Transmission Provider shall continue in to the second phase ("Phase 2") of the Definitive Interconnection System Impact Study. Phase 2 consists of an updated power flow/voltage analysis (if necessary), stability analysis and short circuit analysis for the Interconnection Customers remaining in the DISIS Cluster. Transmission Provider shall use Reasonable Efforts to complete the Phase 2 analysis within one hundred fifty (150) Calendar Days. The results of this analysis shall identify Transmission Provider's Interconnection Facilities and Transmission Provider's Network Upgrades expected to be required to reliably interconnect the Generating Facilities in that DISIS Cluster at the requested Interconnection Service level and shall provide non-binding estimates for required upgrades. The Phase 2 Report shall identify each Interconnection Customer's estimated allocated costs for Transmission Provider's Interconnection Facilities and Transmission Provider's Network Upgrades. Transmission Provider shall hold an open stakeholder meeting ("Phase 2 Report Meeting") within ten (10) Business Days of publishing the DISIS Phase 2 results on OASIS.
- d. Within twenty (20) Calendar Days of the Phase 2 Report Meeting, each Interconnection Customer is required to provide Readiness Milestone 3 ("M3") and additional evidence of Site Control described in Section 7.7.7. Milestones for the Definitive Interconnection Study Process are described in Section 7.7. Interconnection Customers that do not provide the Readiness Milestone (or provide security *in lieu* of the Readiness Milestone) or do not provide Site Control described in Section 7.7.7. by the required date shall be deemed withdrawn from the Queue pursuant to Section 3.7.
  - i. If all Interconnection Customers in the Cluster provide M3 and no Interconnection Customers withdraw from the Queue at this stage, the Definitive Interconnection Study Process advances to the Interconnection Facilities Study (Section 7.4.g). Transmission Provider shall electronically notify Interconnection Customers in the Cluster that Phase 3 is not required and simultaneously provide the Interconnection Facilities Agreement in the form of Appendix 3.
  - ii. If one or more Interconnection Customer withdraws from the Cluster, Transmission Provider shall determine if a full system impact re-study is necessary. If Transmission Provider determines a re-study is not necessary and Phase 3 is not required, Transmission Provider shall provide an updated Phase 2 Report within thirty (30) Calendar Days of such determination and the Definitive Interconnection Study Process advances to the Interconnection Facilities Study (Section 7.4.g). When the updated Phase 2 report is issued, Transmission Provider shall electronically notify Interconnection Customers in the Cluster that Phase

Proposed Effective Date: 12-5-2019

3 is not required and simultaneously provide the Interconnection Facilities Agreement in the form of Appendix 3.

- iii. If one or more Interconnection Customers withdraws from the Cluster and Transmission Provider determines a full system impact re-study is necessary, Transmission Provider will continue with System Impact re-studies ("Phase 3") as described in Section 7.4.e below, until Transmission Provider determines that no further re-studies are required. If a customer withdraws after Section 7.4.d.i or Section 7.4.d.ii or during the Interconnection Facilities Study and Transmission Provider determines system impact level studies are necessary, the Cluster shall be restudied under the terms of Phase 3. Transmission Provider shall electronically notify Interconnection Customers in the Cluster and post on OASIS that a re-study is required. Interconnection Customers that have elected NRIS may make a onetime change between Phase 2 and Phase 3 (before the re-study starts) to ERIS if they notify Transmission Provider of such change in election within five (5) Business Days of the Transmission Provider's notification the first re-study is required.
- e. Interconnection Customers whose M3 and additional evidence of Site Control is accepted by Transmission Provider shall continue with the third phase ("Phase 3") of the Definitive Interconnection System Impact Study. Phase 3 may consist of updated power flow/voltage analysis, stability analysis, and/or short circuit analysis if necessary for the Interconnection Customers remaining in the Cluster. Transmission Provider shall use Reasonable Efforts to complete the Phase 3 analysis within one hundred fifty (150) Calendar Days. The results of this analysis shall identify Transmission Provider's Interconnection Facilities and Transmission Provider's Network Upgrades expected to be required to reliably interconnect the Generating Facilities in that Cluster at the requested Interconnection Service level and shall provide non-binding estimates for required upgrades. The Phase 3 Report shall identify each Interconnection Customer's estimated allocated costs for Transmission Provider's Interconnection Facilities and Transmission Provider's Network Upgrades. Transmission Provider shall hold an open stakeholder meeting ("Phase 3 Report Meeting") within ten (10) Business Days of publishing the DISIS Phase 3 results on OASIS. If additional re-studies are required before moving to Phase 4 below, within twenty (20) Calendar Days of the Phase 3 Report Meeting (or Phase 3 Updated Report Meeting), all Interconnection Customers are required to provide an updated Readiness Milestone 3 ("M3"). Readiness Milestones for the Definitive Interconnection Study Process are described in Section 7.7. Interconnection Customers that do not provide the Readiness Milestone (or provide security *in lieu* of the Readiness Milestone) or do not provide Site Control described in Section 7.7.7. by the required date shall be deemed withdrawn from the Queue pursuant to Section 3.7. Transmission Provider shall electronically notify Interconnection Customers in the Cluster when no further re-studies are required and simultaneously provide the Interconnection Facilities Agreement in the form of Appendix 3.



Proposed Effective Date: 12-5-2019

Approved Effective Date:

- f. Within twenty (20) Calendar Days of the notice that no System Impact re-studies are needed, each Interconnection Customer is required to provide Readiness Milestone 4 ("M4"), Site Control requirements described in Section 7.7.7, and an executed Interconnection Facilities Agreement in the form of Appendix 3 (completed and including all required data identified therein). Readiness Milestones for the Definitive Interconnection System Process are described in Section 7.7. Interconnection Customers that do not provide the Readiness Milestone ( or provide security *in lieu* of the Readiness Milestone) or do not provide Site Control described in Section 7.7.7. by the required date shall be deemed withdrawn from the Queue pursuant to Section 3.7.
- g. Twenty (20) Calendar Days after the notice that no further Re-Studies are needed, Transmission Provider shall proceed with the Interconnection Facilities Study phase ("Phase 4") of the Definitive Study Process, described in detail in Section 8 below. An additional study deposit is not required for Phase 4.

At the request of Interconnection Customer or at any time Transmission Provider determines that it will not meet the indicated timeframe for completing the DISIS, Transmission Provider shall notify Interconnection Customer(s) as to the schedule status of the DISIS Cluster. If Transmission Provider is unable to complete the DISIS within the time period, it shall notify Interconnection Customer(s) and provide an estimated completion date with an explanation of the reasons why additional time is required.

Upon request, Transmission Provider shall provide Interconnection Customer all supporting documentation, workpapers, and relevant pre-Interconnection Request and post-Interconnection Request power flow, short circuit and stability databases for the DISIS, subject to confidentiality arrangements consistent with Section 12.1.

#### **7.5 Meeting with Transmission Provider.**

Within ten (10) Business Days of furnishing a DISIS study report to Interconnection Customer and posting the report on OASIS, Transmission Provider shall convene an open meeting to discuss the study results. Transmission Provider shall, upon request, also make itself available to meet with individual Interconnection Customers after the study report is provided.

#### **7.6 Re-Study.**

If Re-Study of the Definitive Interconnection System Impact Study other than the re-study described above in 7.4.e is required due to a higher or equal priority queued project dropping out of the Queue, or a modification of a higher queued project subject to Section 4.4, Transmission Provider shall notify Interconnection Customer(s) in writing. The Transmission Provider shall make Reasonable Efforts to ensure such Re-Study take no longer than one hundred fifty (150) Calendar Days from the date of notice. Any cost of Re-Study shall be borne by Interconnection Customer(s) being re-studied.

Proposed Effective Date: 12-5-2019

## **7.7 Readiness Milestones and Site Control.**

Readiness Milestones are required throughout the Definitive Interconnection Study Process to demonstrate readiness. A customer that does not sufficiently demonstrate readiness by providing a Readiness Milestones is subject to withdrawal as described in Section 3.7 which may include additional penalties.

There are three Readiness Milestone options that demonstrate readiness through the study process (i.e. for Readiness Milestones 1 (M1) through Readiness Milestones 4 (M4).

### **7.7.1 Readiness Milestone 1 (“M1”).**

M1 is satisfied by any one of the three options below (also described in 3.4.1.f) at Interconnection Customer’s option. M1 may also be satisfied by providing additional security described in Section 7.7.5 below *in lieu* of providing one of the three options to demonstrate readiness.

- a) Executed term sheet (or comparable evidence) related to a contract, binding upon the parties to the contract, for sale of (i) the constructed Generating Facility, (ii) the Generating Facility’s energy, or (iii) the Generating Facility’s ancillary services if the Generating Facility is an electric storage resource; where the term of sale is not less than five (5) years.
- b) Reasonable evidence the project has been selected in a Resource Plan or Resource Solicitation Process; or
- c) Provisional Large Generator Interconnection Agreement accepted for filing at FERC. Such an agreement shall not be suspended and shall include a commitment to construct the Generating Facility.

### **7.7.2 Readiness Milestone 2 (“M2”).**

M2 is satisfied by any one of the three options below at Interconnection Customer’s option. M2 may also be satisfied by providing additional security as described in Section 7.7.5 *in lieu* of providing one of the three options to demonstrate readiness.

- a) Executed term sheet (or comparable evidence) related to a contract, binding upon the parties to the contract, for sale of (i) the constructed Generating Facility, (ii) the Generating Facility’s energy, or (iii) the Generating Facility’s ancillary services if the Generating Facility is an electric storage resource; where the term of sale is not less than five (5) years.
- b) Reasonable evidence that the project has been selected in a Resource Plan or Resource Solicitation Process; or

Proposed Effective Date: 12-5-2019

Approved Effective Date:

- c) Provisional Large Generator Interconnection Agreement accepted for filing at FERC. Such an agreement shall not be suspended and shall include a commitment to construct the Generating Facility.

#### **7.7.3 Readiness Milestone 3 (“M3”).**

M3 is satisfied by any one of the three options below at Interconnection Customer’s option. M3 may also be satisfied by providing additional security described in Section 7.7.5 *in lieu* of providing one of the three options to demonstrate readiness.

- a) Executed contract, binding upon the parties to the contract, for sale of (i) the constructed Generating Facility, (ii) the Generating Facility’s energy, or (iii) the Generating Facility’s ancillary services if the Generating Facility is an electric storage resource; where the term of sale is not less than five (5) years.
- b) Reasonable evidence that the project has been selected in an approved Resource Plan or Resource Solicitation Process; or
- c) An unsuspended Provisional Large Generator Interconnection Agreement accepted for filing by FERC with reasonable evidence that the Generating Facility and Interconnection Facilities have commenced design and engineering.

#### **7.7.4 Readiness Milestone 4 (“M4”).**

M4 is satisfied by any one of the three options below at Interconnection Customer’s option. M4 may also be satisfied by providing additional security as described in Section 7.7.5 below *in lieu* of providing one of the three options to demonstrate readiness.

- a) Executed contract, binding upon the parties to the contract, for sale of (i) the constructed Generating Facility, (ii) the Generating Facility’s energy, or (iii) the Generating Facility’s ancillary services and capacity if the Generating Facility is an electric storage resource; where the term of sale is not less than five (5) years;
- b) Reasonable evidence that the project has been selected in an approved Resource Plan or Resource Solicitation Process; or
- c) An unsuspended Provisional Large Generator Interconnection Agreement accepted for filing by FERC with reasonable evidence that the Generating Facility and Interconnection Facilities have commenced construction.

#### **7.7.5 Security Requirements.**

Proposed Effective Date: 12-5-2019

A table showing the security required in each milestone is provided in Appendix A-2. The security amount is dependent on if the customer provided a Readiness Milestone and the study phase the customer is entering. All security described below shall be in the form of an irrevocable letter of credit upon which Transmission Provider may draw or cash. The security is refunded to the Interconnection Customer upon withdrawal, LGIA termination, or Commercial Operation after any final invoice is settled. If cash is provided as security, it shall be refunded plus interest, where the interest is calculated in accordance with the methodology set forth in FERC's regulations at 18 CFR § 35.19a(a)(2)(iii) from the date the security is received to the date that it is refunded. Security may be drawn upon if costs under this LGIP including the LGIA remain unpaid as per this Revised LGIP and the attached LGIA.

As part of a valid interconnection request all Interconnection Customers must provide security equal to the study deposit amount as described in Section 3.4.1.h. The security provided in Section 3.1.4.h will be applied towards the amount of security required for M5. An Interconnection Customer may opt to provide security *in lieu* of providing Readiness Milestones 1 through 4, as described above in Sections 7.7.1, 7.7.2, 7.7.3, and 7.7.4. The security provided is applied towards the security amount required for each successive milestone if the Interconnection Customer does not withdraw from the queue. For example, the security provided for M2 is applied to the amount of security required for M3.

*In lieu* of providing a demonstration of readiness for Milestones 1 through 4, the amount of security required is a multiple of the study deposit described in Section 3.1 and is in addition to the security required for all Interconnection Customers under Sections 3.4.1.h. The additional amount of security required for each milestone for Interconnection Customers that do not provide a demonstration of readiness is:

M1 = 1 times the study deposit amount

M2 = 2 times the study deposit amount

M3 = 4 times the study deposit amount

M4 = 6 times the study deposit amount

For clarity, the total (i.e. inclusive of the security required under Section 3.4.1.h) amount of security required for each milestone for Interconnection Customers that do not provide a demonstration of readiness is:

Proposed Effective Date: 12-5-2019

M1 = 2 times the study deposit amount

M2 = 3 times the study deposit amount

M3 = 5 times the study deposit amount

M4 = 7 times the study deposit amount

All Interconnection Customers are required to provide security in order to satisfy Readiness Milestone 5 (M5) when the LGIA is executed as described in Section 10.3. The amount of security required for M5 is equal to nine (9) times the Interconnection Customer's share of the Definitive Interconnection Study Process study costs. If this amount is not known, the study deposit amount shall be used as an estimate of study cost until such amounts are known. If initially estimated, M5 shall be updated when the final invoice for actual study costs is issued. As this M5 amount is the total security required to satisfy Readiness Milestone 5, any security provided pursuant to Sections 3.4.1.h, 7.7.5.a, 7.7.5.b, 7.7.1, 7.7.2, 7.7.3, and 7.7.4 shall be applied towards the Readiness Milestone 5 amount when the LGIA is executed. The Interconnection Customer shall only be responsible to provide the incremental amount of security to the Transmission Provider and any excess security provided shall be refunded to the Interconnection Customer. Transmission Provider shall refund all security provided under this section to the Interconnection Customer upon achieving Commercial Operation.

#### **7.7.6 Site Control.**

In addition to the above Readiness Milestones, Site Control is required to determine increased readiness through the Definitive Interconnection Study Process. Additional information on Site Control is posted on Transmission Provider's OASIS.

- a) Before entering Phase 1 (concurrent with M1) demonstration of 50% Site Control and 0% Site Control of Interconnection Customer's Interconnection Facilities is required.
- b) Before entering Phase 2 (concurrent with M2): continued demonstration of 50% Site Control and 0% Site Control of Interconnection Customer's Interconnection Facilities is required.
- c) Before entering Phase 3 (concurrent with M3): demonstration of 60% Site Control and 0% Site Control of Interconnection Customer's Interconnection Facilities is required.

Proposed Effective Date: 12-5-2019

- d) Before entering Phase 4 (concurrent with M4): demonstration of 75% Site Control and 0% Site Control of Interconnection Customer's Interconnection Facilities is required.
- e) Before executing an LGIA (concurrent with M5): demonstration of 90% Site Control and 50% Site Control of Interconnection Customer's Interconnection Facilities is required.

## **Section 8. Interconnection Facilities Study.**

### **8.1 Interconnection Facilities Study Agreement.**

Simultaneously with the notice to Interconnection Customer(s) that Phase 3 is complete or not required, Transmission Provider shall provide to Interconnection Customer an Interconnection Facilities Study Agreement in the form of Appendix 3 to this Revised LGIP. Within five (5) Business Days following the open DISIS results (Phase 2 or Phase 3) meeting, Transmission Provider shall provide to Interconnection Customer a non-binding good faith estimate of the cost and timeframe for completing the Interconnection Facilities Study. The Interconnection Facilities Study Agreement shall provide that Interconnection Customer shall compensate Transmission Provider for the actual cost of the Interconnection Facilities Study. Interconnection Customer shall execute the Interconnection Facilities Study Agreement and deliver the executed Interconnection Facilities Study Agreement to Transmission Provider within twenty (20) Calendar Days after its receipt, together with the required technical data, Readiness Milestone 4 and the Site Control requirements described in Section 7.7.7. Interconnection Customers that do not provide the Readiness Milestone (or additional security *in lieu* of the Readiness Milestone) and provide Site Control described in Section 7.7.7. by the required date shall be deemed withdrawn from the Queue pursuant to Section 3.7.

### **8.2 Scope of Interconnection Facilities Study.**

The Interconnection Facilities Study shall specify and provide a non-binding estimate of the cost of the equipment, engineering, procurement and construction work needed to implement the conclusions of the final Phase 2 or Phase 3 Report (as appropriate) in accordance with Good Utility Practice to physically and electrically connect the Interconnection Facilities to the Transmission System. The Interconnection Facilities Study shall also identify the electrical switching configuration of the connection equipment, including, without limitation: the transformer, switchgear, meters, and other station equipment; the nature and estimated cost of any Transmission Provider's Interconnection Facilities and Network Upgrades necessary to accomplish the interconnection; and an estimate of the time required to complete the construction and installation of such facilities.

The Interconnection Facilities Study will also identify any potential control equipment for requests for Interconnection Service that are lower than the Generating Facility Capacity.

### **8.3 Interconnection Facilities Study Procedures.**

Proposed Effective Date: 12-5-2019

Approved Effective Date:

- a. Transmission Provider shall coordinate the Interconnection Facilities Study with any Affected System pursuant to Section 3.6 above. Transmission Provider shall utilize existing studies to the extent practicable in performing the Interconnection Facilities Study. Transmission Provider shall use Reasonable Efforts to complete the study and issue a draft Interconnection Facilities Study report to Interconnection Customer within ninety (90) Calendar Days after acceptance of the Interconnection Facilities Agreement and Readiness Milestone 4.
- b. At the request of Interconnection Customer Transmission Provider shall notify Interconnection Customer as to the schedule status of the Interconnection Facilities Study. If Transmission Provider is unable to complete the Interconnection Facilities Study and issue a draft Interconnection Facilities Study report within the time identified, it shall notify Interconnection Customer and provide an estimated completion date and an explanation of the reasons why additional time is required.
- c. Interconnection Customer may, within thirty (30) Calendar Days after receipt of the draft Interconnection Facilities Study report, provide written comments to Transmission Provider, which Transmission Provider shall consider in completing the final Interconnection Facilities Study report. Transmission Provider shall issue the final Interconnection Facilities Study report within fifteen (15) Business Days of receiving Interconnection Customer's comments or promptly upon receiving Interconnection Customer's statement that it will not provide comments. Transmission Provider may reasonably extend such fifteen (15) Business Day period upon notice to Interconnection Customer if Interconnection Customer's comments require Transmission Provider to perform additional analyses or make other significant modifications prior to the issuance of the final Interconnection Facilities Study report. Upon request, Transmission Provider shall provide Interconnection Customer supporting documentation, workpapers, and databases or data developed in the preparation of the Interconnection Facilities Study, subject to confidentiality arrangements consistent with Section 12.1.

#### **8.4 Meeting with Transmission Provider.**

Within ten (10) Business Days of providing a draft Interconnection Facilities Study report to Interconnection Customer, Transmission Provider and Interconnection Customer shall meet to discuss the results of the Interconnection Facilities Study.

#### **8.5 Re-Study.**

If Re-Study of the Interconnection Facilities Study is required due to a higher or equal priority queued project dropping out of the Queue or a modification of a higher queued project pursuant to Section 4.4, Transmission Provider shall so notify Interconnection Customer in writing. The Transmission Provider shall

Proposed Effective Date: 12-5-2019

Approved Effective Date:

make Reasonable Efforts to ensure such Re-Study take no longer than sixty (60) Calendar Days from the date of notice. Re-Studies that require rerunning the system impact study analysis may take longer than sixty days. Any cost of Re-Study shall be borne by the Interconnection Customer(s) being re-studied.

**Section 9. Engineering & Procurement (“E&P”) Agreement.**

Prior to executing an LGIA, an Interconnection Customer may, in order to advance the implementation of its interconnection, request and Transmission Provider shall offer the Interconnection Customer, an E&P Agreement that authorizes Transmission Provider to begin engineering and procurement of long lead-time items necessary for the establishment of the interconnection. However, Transmission Provider shall not be obligated to offer an E&P Agreement if Interconnection Customer is in Dispute Resolution as a result of an allegation that Interconnection Customer has failed to meet any Readiness Milestones or comply with any prerequisites specified in other parts of the Revised LGIP. The E&P Agreement is an optional procedure and it will not alter the Interconnection Customer's Queue Position or In-Service Date. The E&P Agreement shall provide for Interconnection Customer to pay the cost of all activities authorized by Interconnection Customer and to make advance payments or provide other satisfactory security for such costs.

Interconnection Customer shall pay the cost of such authorized activities and any cancellation costs for equipment that is already ordered for its interconnection, which cannot be mitigated as hereafter described, whether or not such items or equipment later become unnecessary. If Interconnection Customer withdraws its application for interconnection or either Party terminates the E&P Agreement, to the extent the equipment ordered can be canceled under reasonable terms, Interconnection Customer shall be obligated to pay the associated cancellation costs. To the extent that the equipment cannot be reasonably canceled, Transmission Provider may elect: (i) to take title to the equipment, in which event Transmission Provider shall refund Interconnection Customer any amounts paid by Interconnection Customer for such equipment and shall pay the cost of delivery of such equipment, or (ii) to transfer title to and deliver such equipment to Interconnection Customer, in which event Interconnection Customer shall pay any unpaid balance and cost of delivery of such equipment.

**Section 10. Standard Large Generator Interconnection Agreement (LGIA).**

**10.1 Tender.**

Interconnection Customer shall tender comments on the draft Interconnection Facilities Study Report within thirty (30) Calendar Days of receipt of the report. Within thirty (30) Calendar Days after the comments are submitted or after the Interconnection Customer notifies Transmission Provider that it will provide no comments, Transmission Provider shall tender a draft LGIA, together with draft appendices. The draft LGIA shall be in the form of Transmission Provider's FERC-approved standard form LGIA, which is in Appendix 6. Interconnection Customer shall return the completed draft appendices and execute the LGIA



Proposed Effective Date: 12-5-2019

Approved Effective Date:

within thirty (30) Calendar Days unless the sixty (60) Calendar Day negotiation period under Section 10.2 has commenced.

#### **10.2 Negotiation.**

Notwithstanding Section 10.1, at the request of Interconnection Customer, Transmission Provider shall begin negotiations with Interconnection Customer concerning the appendices to the LGIA at any time after Interconnection Customer executes the Interconnection Facilities Study Agreement. Transmission Provider and Interconnection Customer shall negotiate concerning any disputed provisions of the appendices to the draft LGIA for not more than sixty (60) Calendar Days after tender of the final Interconnection Facilities Study Report. If Interconnection Customer determines that negotiations are at an impasse, Interconnection Customer may request termination of the negotiations at any time after tender of the draft LGIA pursuant to Section 10.1 and request submission of the unexecuted LGIA with FERC or initiate Dispute Resolution procedures pursuant to Section 12.5. If Interconnection Customer requests termination of the negotiations, but within sixty (60) Calendar Days thereafter fails to request either the filing of the unexecuted LGIA or initiate Dispute Resolution, it shall be deemed to have withdrawn its Interconnection Request. Unless otherwise agreed by the Parties, if Interconnection Customer has not executed the LGIA, requested filing of an unexecuted LGIA, or initiated Dispute

Resolution procedures pursuant to Section 12.5 within sixty (60) Calendar Days of tender of draft LGIA, it shall be deemed to have withdrawn its Interconnection Request. Transmission Provider shall provide to Interconnection Customer a final LGIA within fifteen (15) Business Days after the completion of the negotiation process.

#### **10.3 Execution and Filing.**

Within fifteen (15) Business Days after receipt of the final LGIA, Interconnection Customer shall (a) provide reasonable evidence that continued Site Control as defined in Section 7.7.7 and (b) post Readiness Milestone 5 (security equal to nine (9) times that Interconnection Customer's share of the Definitive Interconnection Study Process study costs. If the actual study costs are not known at the time, study costs shall be estimated as the study deposit described in Section 3.1, and the M5 amount shall be updated when the study costs are known. If the Interconnection Customer does not reach Commercial Operation, upon payment of any final invoice, including any Withdrawal Penalty, Readiness Milestone 5 shall be refunded to the Interconnection Customer, including any accumulated interest, if applicable. If the Interconnection Customer reaches Commercial Operation, Readiness Milestone 5 is refunded to the Interconnection Customer including any accumulated interest, if applicable. Within fifteen (15) Business Days after receipt of the final LGIA, Interconnection Customer also shall provide reasonable evidence that one or more of the following milestones in the development of the Large Generating Facility, at Interconnection Customer election, has been achieved: (i) the execution of a contract for the supply or transportation of fuel to the Large Generating Facility (not available for wind or solar resources); (ii) the execution of a contract for the supply of cooling water to

Proposed Effective Date: 12-5-2019

the Large Generating Facility (not available for wind or solar resources); (iii) execution of a contract for the engineering for, procurement of major equipment for, or construction of, the Large Generating Facility; (iv) execution of a contract (or comparable evidence) for the sale of electric energy or capacity from the Large Generating Facility; or (v) application for an air, water, or land use permit.

Interconnection Customer shall either: (i) execute two originals of the tendered LGIA and return them to Transmission Provider; or (ii) request in writing that Transmission Provider file with FERC an LGIA in unexecuted form. As soon as practicable, but not later than ten (10) Business Days after receiving either the two executed originals of the tendered LGIA (if it does not conform with a FERC-approved standard form of interconnection agreement) or the request to file an unexecuted LGIA, Transmission Provider shall file the LGIA with FERC, together with its explanation of any matters as to which Interconnection Customer and Transmission Provider disagree and support for the costs that Transmission Provider proposes to charge to Interconnection Customer under the LGIA. An unexecuted LGIA should contain terms and conditions deemed appropriate by Transmission Provider for the Interconnection Request. If the Parties agree to proceed with design, procurement, and construction of facilities and upgrades under the agreed-upon terms of the unexecuted LGIA, they may proceed pending FERC action.

#### **10.4 Commencement of Interconnection Activities.**

If Interconnection Customer executes the final LGIA, Transmission Provider and Interconnection Customer shall perform their respective obligations in accordance with the terms of the LGIA, subject to modification by FERC. Upon submission of an unexecuted LGIA, Interconnection Customer and Transmission Provider shall promptly comply with the unexecuted LGIA, subject to modification by FERC.

### **Section 11. Construction of Transmission Provider's Interconnection Facilities and Network Upgrades.**

#### **11.1 Schedule.**

Transmission Provider and Interconnection Customer shall negotiate in good faith concerning a schedule for the construction of Transmission Provider's Interconnection Facilities and the Network Upgrades.

#### **11.2 Construction Sequencing.**

##### **11.2.1 General.**

In general, the In-Service Date of an Interconnection Customers seeking interconnection to the Transmission System will determine the sequence of construction of Network Upgrades. Construction Sequencing may also apply to shared Transmission Provider's Interconnection Facilities in a similar manner as described below for Network Upgrades.

**11.2.2 Advance Construction of Network Upgrades that are an Obligation of an Entity other than Interconnection Customer.**

An Interconnection Customer with an LGIA, in order to maintain its In-Service Date, may request that Transmission Provider advance to the extent necessary the completion of Network Upgrades that: (i) were assumed in the Interconnection Studies for such Interconnection Customer, (ii) are necessary to support such In-Service Date, and (iii) would otherwise not be completed, pursuant to a contractual obligation of an entity other than Interconnection Customer that is seeking interconnection to the Transmission System, in time to support such In-Service Date. Upon such request, Transmission Provider will use Reasonable Efforts to advance the construction of such Network Upgrades to accommodate such request; provided that Interconnection Customer commits to pay Transmission Provider: (i) any associated expediting costs; and (ii) the cost of such Network Upgrades.

Transmission Provider will refund to Interconnection Customer both the expediting costs and the cost of Network Upgrades, in accordance with Article 11.4 of the LGIA. Consequently, the entity with a contractual obligation to construct such Network Upgrades shall be obligated to pay only that portion of the costs of the Network Upgrades that Transmission Provider has not refunded to Interconnection Customer. Payment by that entity shall be due on the date that it would have been due had there been no request for advance construction. Transmission Provider shall forward to Interconnection Customer the amount paid by the entity with a contractual obligation to construct the Network Upgrades as payment in full for the outstanding balance owed to Interconnection Customer. Transmission Provider then shall refund to that entity the amount that it paid for the Network Upgrades, in accordance with Article 11.4 of the LGIA.

**11.2.3 Advancing Construction of Network Upgrades that are Part of an Expansion Plan of the Transmission Provider.**

An Interconnection Customer with an LGIA, in order to maintain its In-Service Date, may request that Transmission Provider advance to the extent necessary the completion of Network Upgrades that: (i) are necessary to support such In-Service Date; and (ii) would otherwise not be completed, pursuant to an expansion plan of Transmission Provider, in time to support such In-Service Date. Upon such request, Transmission Provider will use Reasonable Efforts to advance the construction of such Network Upgrades to accommodate such request; provided that Interconnection Customer commits to pay Transmission Provider any associated expediting costs. Interconnection Customer shall be entitled to transmission credits, if any, for any expediting costs paid.

Proposed Effective Date: 12-5-2019

**11.2.4 Amended Definitive Interconnection System Impact Study.**

A Definitive Interconnection System Impact Study may be amended to determine the facilities necessary to support the requested In-Service Date. This amended study will include those transmission and Large Generating Facilities that are expected to be in service on or before the requested In-Service Date.

**Section 12. Miscellaneous.**

**12.1 Confidentiality.**

Confidential Information shall include, without limitation, all information relating to a Party's technology, research and development, business affairs, and pricing, and any information supplied by either of the Parties to the other prior to the execution of an LGIA.

Information is Confidential Information only if it is clearly designated or marked in writing as confidential on the face of the document, or, if the information is conveyed orally or by inspection, if the Party providing the information orally informs the Party receiving the information that the information is confidential.

If requested by either Party, the other Party shall provide in writing the basis for asserting that the information referred to in this Article warrants confidential treatment, and the requesting Party may disclose such writing to the appropriate Governmental Authority. Each Party shall be responsible for the costs associated with affording confidential treatment to its information.

**12.1.1 Scope.**

Confidential Information shall not include information that the receiving Party can demonstrate: (1) is generally available to the public other than as a result of a disclosure by the receiving Party; (2) was in the lawful possession of the receiving Party on a non-confidential basis before receiving it from the disclosing Party; (3) was supplied to the receiving Party without restriction by a third party, who, to the knowledge of the receiving Party after due inquiry, was under no obligation to the disclosing Party to keep such information confidential; (4) was independently developed by the receiving Party without reference to Confidential Information of the disclosing Party; (5) is, or becomes, publicly known, through no wrongful act or omission of the receiving Party or Breach of the LGIA; or (6) is required, in accordance with Section 12.1.6, Order of Disclosure, to be disclosed by any Governmental Authority or is otherwise required to be disclosed by law or subpoena, or is necessary in any legal proceeding establishing rights and obligations under the LGIA

Information designated as Confidential Information will no longer be deemed confidential if the Party that designated the information as confidential notifies the other Party that it no longer is confidential.

Proposed Effective Date: 12-5-2019

**12.1.2 Release of Confidential Information.**

Neither Party shall release or disclose Confidential Information to any other person, except to its Affiliates (limited by the Standards of Conduct requirements), employees, consultants, or to parties who may be or considering providing financing to or equity participation with Interconnection Customer, or to potential purchasers or assignees of Interconnection Customer, on a need-to-know basis in connection with these procedures, unless such person has first been advised of the confidentiality provisions of this Section 12.1 and has agreed to comply with such provisions. Notwithstanding the foregoing, a Party providing Confidential Information to any person shall remain primarily responsible for any release of Confidential Information in contravention of this Section 12.1.

**12.1.3 Rights.**

Each Party retains all rights, title, and interest in the Confidential Information that each Party discloses to the other Party. The disclosure by each Party to the other Party of Confidential Information shall not be deemed a waiver by either Party or any other person or entity of the right to protect the Confidential Information from public disclosure.

**12.1.4 No Warranties.**

By providing Confidential Information, neither Party makes any warranties or representations as to its accuracy or completeness. In addition, by supplying Confidential Information, neither Party obligates itself to provide any particular information or Confidential Information to the other Party nor to enter into any further agreements or proceed with any other relationship or joint venture.

**12.1.5 Standard of Care.**

Each Party shall use at least the same standard of care to protect Confidential Information it receives as it uses to protect its own Confidential Information from unauthorized disclosure, publication or dissemination. Each Party may use Confidential Information solely to fulfill its obligations to the other Party under these procedures or its regulatory requirements.

**12.1.6 Order of Disclosure.**

If a court or a Government Authority or entity with the right, power, and apparent authority to do so requests or requires either Party, by subpoena, oral deposition, interrogatories, requests for production of documents, administrative order, or otherwise, to disclose Confidential Information, that Party shall provide the other Party with prompt notice of such request(s) or requirement(s) so that the other Party may seek an appropriate protective order or waive compliance with the terms of the LGIA. Notwithstanding the absence of a protective order or

Proposed Effective Date: 12-5-2019

Approved Effective Date:

waiver, the Party may disclose such Confidential Information which, in the opinion of its counsel, the Party is legally compelled to disclose. Each Party will use Reasonable Efforts to obtain reliable assurance that confidential treatment will be accorded any Confidential Information so furnished.

**12.1.7 Remedies.**

The Parties agree that monetary damages would be inadequate to compensate a Party for the other Party's Breach of its obligations under this Section 12.1. Each Party accordingly agrees that the other Party shall be entitled to equitable relief, by way of injunction or otherwise, if the first Party Breaches or threatens to Breach its obligations under this Section 12.1, which equitable relief shall be granted without bond or proof of damages, and the receiving Party shall not plead in defense that there would be an adequate remedy at law. Such remedy shall not be deemed an exclusive remedy for the Breach of this Section 12.1, but shall be in addition to all other remedies available at law or in equity. The Parties further acknowledge and agree that the covenants contained herein are necessary for the protection of legitimate business interests and are reasonable in scope. No Party, however, shall be liable for indirect, incidental, or consequential or punitive damages of any nature or kind resulting from or arising in connection with this Section 12.1.

**12.1.8 Disclosure to FERC, its Staff, or a State.**

Notwithstanding anything in this Section 12.1 to the contrary, and pursuant to 18 CFR Section 1b.20, if FERC or its staff, during the course of an investigation or otherwise, requests information from one of the Parties that is otherwise required to be maintained in confidence pursuant to the Revised LGIP, the Party shall provide the requested information to FERC or its staff, within the time provided for in the request for information. In providing the information to FERC or its staff, the Party must, consistent with 18 CFR Section 388.112, request that the information be treated as confidential and non-public by FERC and its staff and that the information be withheld from public disclosure. Parties are prohibited from notifying the other Party prior to the release of the Confidential Information to FERC or its staff. The Party shall notify the other Party to the LGIA when it is notified by FERC or its staff that a request to release Confidential Information has been received by FERC, at which time either of the Parties may respond before such information would be made public, pursuant to 18 CFR Section 388.112. Requests from a state regulatory body conducting a confidential investigation shall be treated in a similar manner, consistent with applicable state rules and regulations.

**12.1.9** Subject to the exception in Section 12.1.8, any information that a Party claims is competitively sensitive, commercial or financial information ("Confidential Information") shall not be disclosed by the

Proposed Effective Date: 12-5-2019

other Party to any person not employed or retained by the other Party, except to the extent disclosure is (i) required by law; (ii) reasonably deemed by the disclosing Party to be required to be disclosed in connection with a dispute between or among the Parties, or the defense of litigation or dispute; (iii) otherwise permitted by consent of the other Party, such consent not to be unreasonably withheld; or (iv) necessary to fulfill its obligations under this Revised LGIP or as a transmission service provider or a Control Area operator including disclosing the Confidential Information to an RTO or ISO or to a subregional, regional or national reliability organization or planning group. The Party asserting confidentiality shall notify the other Party in writing of the information it claims is confidential. Prior to any disclosures of the other Party's Confidential Information under this subparagraph, or if any third party or Governmental Authority makes any request or demand for any of the information described in this subparagraph, the disclosing Party agrees to promptly notify the other Party in writing and agrees to assert confidentiality and cooperate with the other Party in seeking to protect the Confidential Information from public disclosure by confidentiality agreement, protective order or other reasonable measures.

- 12.1.10** This provision shall not apply to any information that was or is hereafter in the public domain (except as a result of a Breach of this provision).

Transmission Provider shall, at Interconnection Customer's election, destroy, in a confidential manner, or return the Confidential Information provided at the time of Confidential Information is no longer needed.

**12.2 Delegation of Responsibility.**

Transmission Provider may use the services of subcontractors as it deems appropriate to perform its obligations under this Revised LGIP. Transmission Provider shall remain primarily liable to Interconnection Customer for the performance of such subcontractors and compliance with its obligations of this Revised LGIP. The subcontractor shall keep all information provided confidential and shall use such information solely for the performance of such obligation for which it was provided and no other purpose.

**12.3 Obligation for Study Costs and Withdrawal Penalty**

Transmission Provider shall charge and Interconnection Customer shall pay the actual costs of the Interconnection Studies and the Withdrawal Penalty, as applicable. Any difference between the study deposit and the actual cost of the applicable Interconnection Study shall be paid by or refunded, except as otherwise provided herein. Any invoices for Interconnection Studies shall include a detailed and itemized accounting of the cost of each Interconnection Study as well as the Withdrawal Penalty, if applicable. Interconnection Customer shall pay any such undisputed costs within thirty (30) Calendar Days of receipt of an

Proposed Effective Date: 12-5-2019

Approved Effective Date:

invoice. Transmission Provider shall not be obligated to perform or continue to perform any studies unless Interconnection Customer has paid all undisputed amounts in compliance herewith. If invoices are not paid within thirty (30) Calendar Days of receipt of an invoice, Transmission Provider shall draw upon the security provided under this Revised LGIP to settle all accounts, which shall include any offsets of amounts due and owing by Transmission Provider. After the final invoice is paid and all accounts are settled, Transmission Provider shall refund all remaining security.

#### **12.4 Third Parties Conducting Studies.**

If (i) at the time of the signing of an Interconnection Study Agreement there is disagreement as to the estimated time to complete an Interconnection Study, (ii) Interconnection Customer receives notice pursuant to Sections 7.4 or 8.3 that Transmission Provider will not complete an Interconnection Study within the applicable timeframe for such Interconnection Study, or (iii) Interconnection Customer receives neither the Interconnection Study nor a notice under Sections 7.4 or 8.3 within the applicable timeframe for such Interconnection Study, then Interconnection Customer may require Transmission Provider to utilize a third party consultant reasonably acceptable to Interconnection Customer and Transmission Provider to perform such Interconnection Study under the direction of Transmission Provider. At other times, Transmission Provider may also utilize a third party consultant to perform such Interconnection Study, either in response to a general request of Interconnection Customer, or on its own volition.

In all cases, use of a third party consultant shall be in accord with Article 26 of the LGIA (Subcontractors) and limited to situations where Transmission Provider determines that doing so will help maintain or accelerate the study process for Interconnection Customer's pending Interconnection Request and not interfere with Transmission Provider's progress on Interconnection Studies for other pending Interconnection Requests. In cases where Interconnection Customer requests use of a third party consultant to perform such Interconnection Study, Interconnection Customer and Transmission Provider shall negotiate all of the pertinent terms and conditions, including reimbursement arrangements and the estimated study completion date and study review deadline. Transmission Provider shall convey all workpapers, data bases, study results and all other supporting documentation prepared to date with respect to the Interconnection Request as soon as practicable upon Interconnection Customer's request subject to the confidentiality provision in Section 12.1. In any case, such third party contract may be entered into with either Interconnection Customer or Transmission Provider at Transmission Provider's discretion. In the case of clause (iii), above, Interconnection Customer maintains its right to submit a claim to Dispute Resolution to recover the costs of such third party study. Such third party consultant shall be required to comply with this Revised LGIP, Article 26 of the LGIA (Subcontractors), and the relevant Tariff procedures and protocols as would apply if Transmission Provider were to conduct the Interconnection Study and shall use the information provided to it solely for purposes of performing such services and for no other purposes. Transmission Provider shall cooperate



Proposed Effective Date: 12-5-2019

with such third party consultant and Interconnection Customer to complete and issue the Interconnection Study in the shortest reasonable time.

## **12.5 Disputes.**

### **12.5.1 Submission.**

In the event either Party has a dispute, or asserts a claim, that arises out of or in connection with the LGIA, the Revised LGIP, or their performance, such Party (the "disputing Party") shall provide the other Party with written notice of the dispute or claim ("Notice of Dispute"). Such dispute or claim shall be referred to a designated senior representative of each Party for resolution on an informal basis as promptly as practicable after receipt of the Notice of Dispute by the other Party. In the event the designated representatives are unable to resolve the claim or dispute through unassisted or assisted negotiations within thirty (30) Calendar Days of the other Party's receipt of the Notice of Dispute, such claim or dispute may, upon mutual agreement of the Parties, be submitted to arbitration and resolved in accordance with the arbitration procedures set forth below. In the event the Parties do not agree to submit such claim or dispute to arbitration, each Party may exercise whatever rights and remedies it may have in equity or at law consistent with the terms of this LGIA.

### **12.5.2 External Arbitration Procedures.**

Any arbitration initiated under these procedures shall be conducted before a single neutral arbitrator appointed by the Parties. If the Parties fail to agree upon a single arbitrator within ten (10) Calendar Days of the submission of the dispute to arbitration, each Party shall choose one arbitrator who shall sit on a three-member arbitration panel. The two arbitrators so chosen shall within twenty (20) Calendar Days select a third arbitrator to chair the arbitration panel. In either case, the arbitrators shall be knowledgeable in electric utility matters, including electric transmission and bulk power issues, and shall not have any current or past substantial business or financial relationships with any party to the arbitration (except prior arbitration). The arbitrator(s) shall provide each of the Parties an opportunity to be heard and, except as otherwise provided herein, shall conduct the arbitration in accordance with the Commercial Arbitration Rules of the American Arbitration Association ("Arbitration Rules") and any applicable FERC regulations or RTO rules; provided, however, in the event of a conflict between the Arbitration Rules and the terms of this Section 12, the terms of this Section 12 shall prevail.

### **12.5.3 Arbitration Decisions.**

Unless otherwise agreed by the Parties, the arbitrator(s) shall render a decision within ninety (90) Calendar Days of appointment and shall notify the Parties in writing of such decision and the reasons therefore. The arbitrator(s) shall be authorized only to interpret and

Proposed Effective Date: 12-5-2019

apply the provisions of the LGIA and Revised LGIP and shall have no power to modify or change any provision of the LGIA and Revised LGIP in any manner. The decision of the arbitrator(s) shall be final and binding upon the Parties, and judgment on the award may be entered in any court having jurisdiction. The decision of the arbitrator(s) may be appealed solely on the grounds that the conduct of the arbitrator(s), or the decision itself, violated the standards set forth in the Federal Arbitration Act or the Administrative Dispute Resolution Act. The final decision of the arbitrator must also be filed with FERC if it affects jurisdictional rates, terms and conditions of service, Interconnection Facilities, or Network Upgrades.

**12.5.4 Costs.**

Each Party shall be responsible for its own costs incurred during the arbitration process and for the following costs, if applicable: (1) the cost of the arbitrator chosen by the Party to sit on the three member panel and one-half of the cost of the third arbitrator chosen; or (2) one-half the cost of the single arbitrator jointly chosen by the Parties.

**12.5.5 Non-Binding Dispute Resolution Procedures.**

If a Party has submitted a Notice of Dispute pursuant to Section 12.5.1, and the Parties are unable to resolve the claim or dispute through unassisted or assisted negotiations within the thirty (30) Calendar Days provided in that section, and the Parties cannot reach mutual agreement to pursue the Section 12.5 arbitration process, a Party may request that Transmission Provider engage in Non-binding Dispute Resolution pursuant to this section by providing written notice to Transmission Provider ("Request for Non-binding Dispute Resolution"). Conversely, either Party may file a Request for Non-binding Dispute Resolution pursuant to this section without first seeking mutual agreement to pursue the Section 12.5 arbitration process. The process in Section 12.5.5 shall serve as an alternative to, and not a replacement of, the Section 12.5 arbitration process. Pursuant to this process, Transmission Provider must within thirty (30) Calendar Days of receipt of the Request for Non-binding Dispute Resolution appoint a neutral decision-maker that is an independent subcontractor that shall not have any current or past substantial business or financial relationships with either Party. Unless otherwise agreed by the Parties, the decision-maker shall render a decision within sixty (60) Calendar Days of appointment and shall notify the Parties in writing of such decision and reasons therefore. This decision-maker shall be authorized only to interpret and apply the provisions of the Revised LGIP and LGIA and shall have no power to modify or change any provision of the Revised LGIP and LGIA in any manner. The result reached in this process is not binding, but, unless otherwise agreed, the Parties may cite the record and decision in the non-binding dispute resolution process in future dispute resolution

Proposed Effective Date: 12-5-2019

processes, including in Section 12.5 arbitration, or in a Federal Power Act Section 206 complaint. Each Party shall be responsible for its own costs incurred during the process and the cost of the decision-maker shall be divided equally among each Party to the dispute.

## **12.6 Local Furnishing Bonds.**

### **12.6.1 Transmission Providers That Own Facilities Financed by Local Furnishing Bonds.**

This provision is applicable only to a Transmission Provider that has financed facilities for the local furnishing of electric energy with tax-exempt bonds, as described in Section 142(f) of the Internal Revenue Code ("local furnishing bonds"). Notwithstanding any other provision of this LGIA and Revised LGIP, Transmission Provider shall not be required to provide Interconnection Service to Interconnection Customer pursuant to this LGIA and Revised LGIP if the provision of such Transmission Service would jeopardize the tax-exempt status of any local furnishing bond(s) used to finance Transmission Provider's facilities that would be used in providing such Interconnection Service.

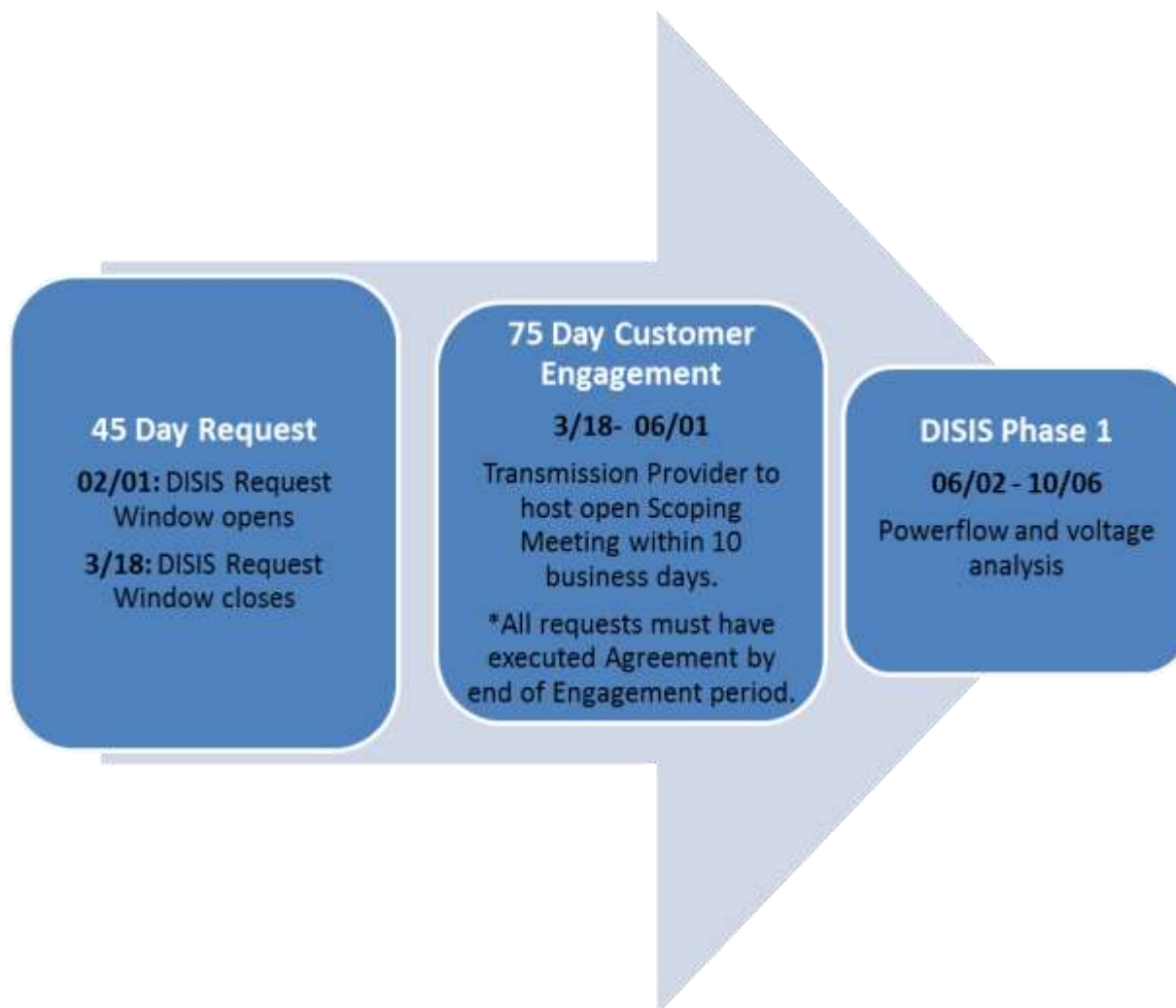
### **12.6.2 Alternative Procedures for Requesting Interconnection Service.**

If Transmission Provider determines that the provision of Interconnection Service requested by Interconnection Customer would jeopardize the tax-exempt status of any local furnishing bond(s) used to finance its facilities that would be used in providing such Interconnection Service, it shall advise Interconnection Customer within thirty (30) Calendar Days of receipt of the Interconnection Request.

Interconnection Customer thereafter may renew its request for interconnection using the process specified in Article 5.2(ii) of the Transmission Provider's Tariff.

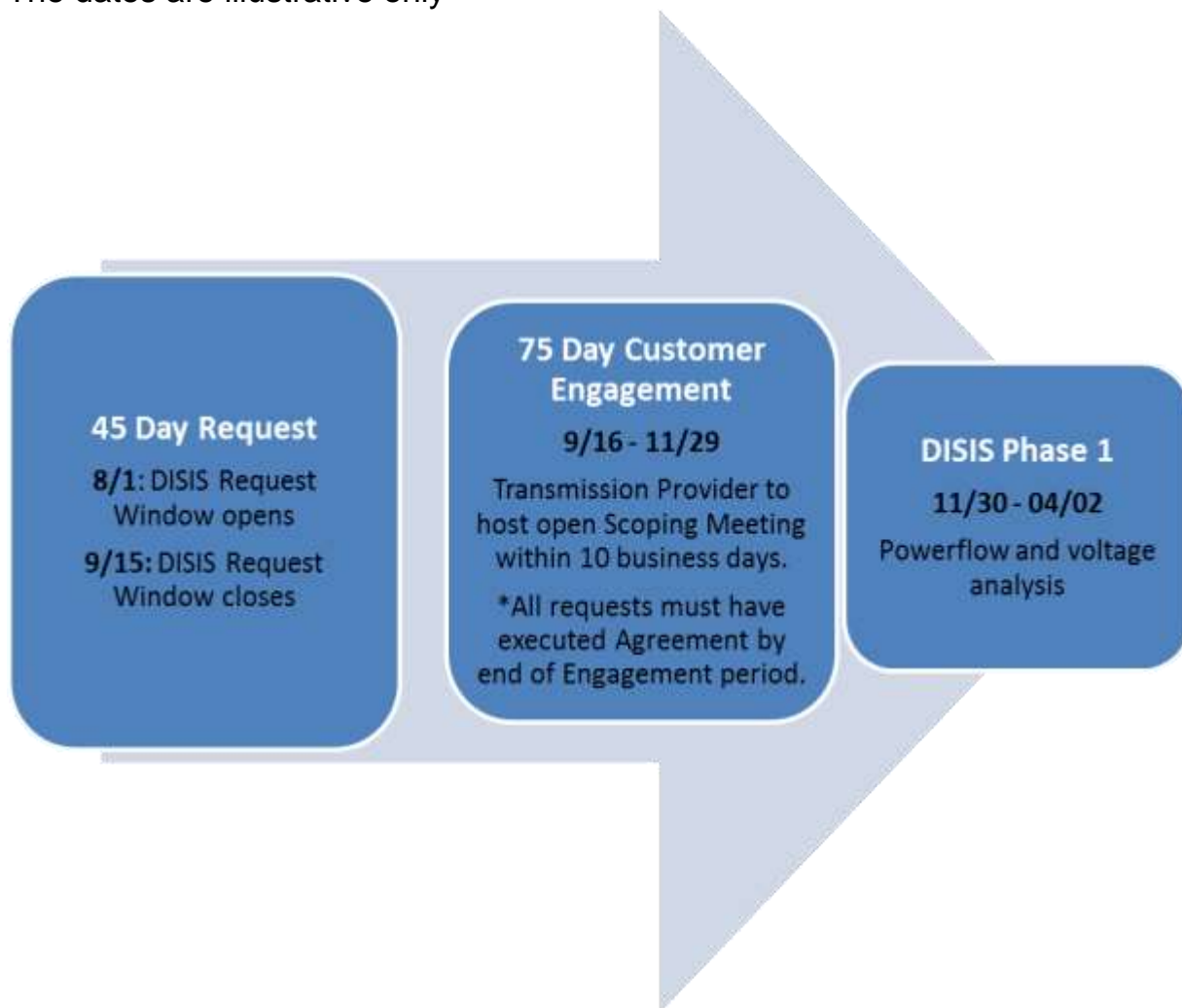
### Timeline: Appendix A-1 – Start of the Spring DISIS Cluster

The dates are illustrative only



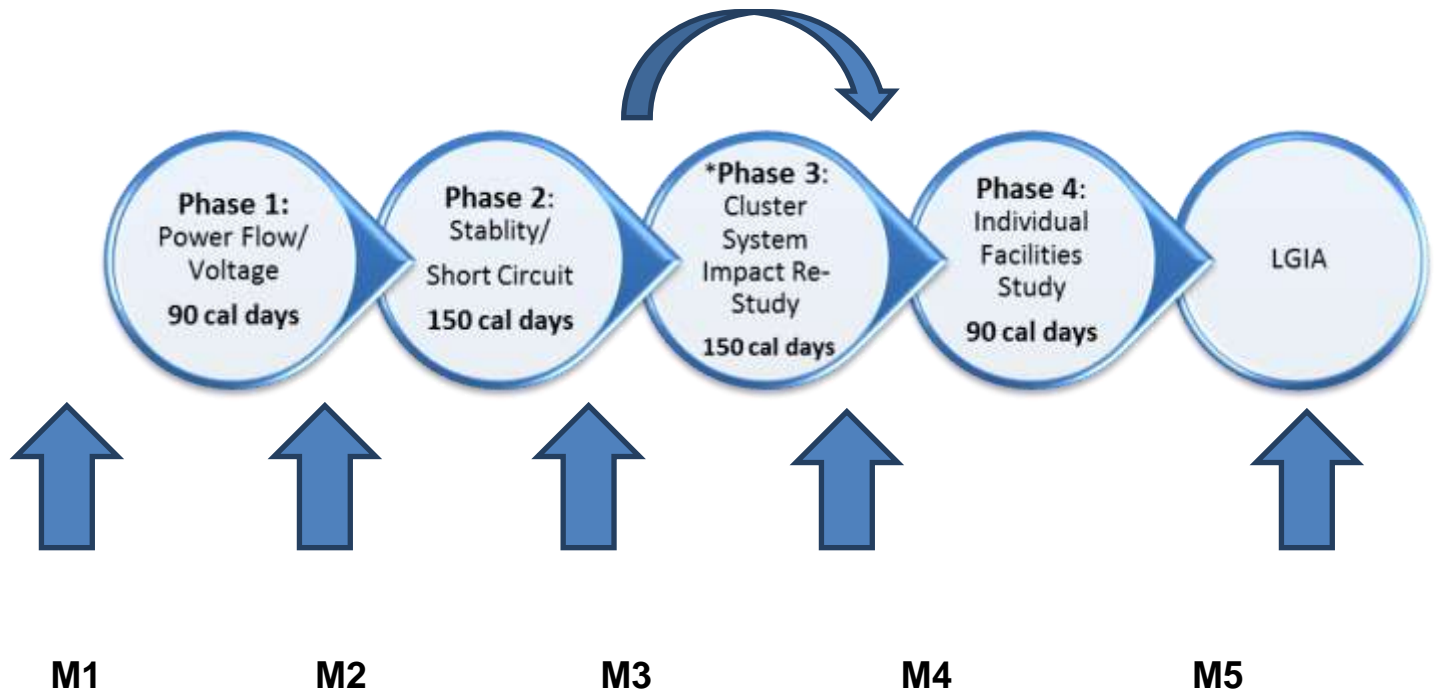
### Timeline: Appendix A-1 – Start of the Fall DISIS Cluster

The dates are illustrative only



Proposed Effective Date: 12-5-2019

**Timeline: Appendix A-2**



Milestone	Total Security Required (Multiple of Section 3.1 Study Deposit) If Demonstration of Readiness <u>IS</u> Provided	Total Security Required (Multiple of Section 3.1 Study Deposit) If Demonstration of Readiness <u>IS NOT</u> Provided	Demonstration of Site Control for All Fuel Types	Site Control of ICIF's
<b>M1</b>	<b>1x</b>	<b>2x</b>	<b>50%</b>	<b>0%</b>
<b>M2</b>	<b>1x</b>	<b>3x</b>	<b>50%</b>	<b>0%</b>
<b>M3</b>	<b>1x</b>	<b>5x</b>	<b>60%</b>	<b>0%</b>
<b>M4</b>	<b>1x</b>	<b>7x</b>	<b>75%</b>	<b>0%</b>
<b>M5</b>	<b>9x</b>	<b>9x</b>	<b>90%</b>	<b>50%</b>

Proposed Effective Date: 12-5-2019

<b>Phase 1: Power Flow/Voltage: Within 90 calendar days</b>
<ul style="list-style-type: none"> <li>• Transmission Provider to perform Power Flow and Voltage Analysis.</li> <li>• Transmission Provider to complete Phase 1 report within 90 calendar days and post results on OASIS.</li> <li>• Transmission Provider to hold open Stakeholder Meeting within 10 business days of publishing DISIS Phase 1 results on OASIS.</li> <li>• Interconnection Customer demonstrate M2 Readiness within 20 business days following open Stakeholder Meeting</li> </ul>
<b>Phase 2: Stability/Short Circuit: Within 150 calendar days</b>
<ul style="list-style-type: none"> <li>• Transmission Provider to complete Phase 2 analysis within 150 calendar and post results on OASIS.</li> <li>• Transmission Provider to hold Phase 2 Report Meeting within 10 business days of publishing report results on OASIS.</li> <li>• Interconnection Customer to demonstrate M3 (if Re-Study is necessary) or M4 Readiness within 20 business days of Report Meeting.</li> </ul>
<b>**Phase 3: Iterative Cluster System Impact Re-Study: Within 150 calendar days</b>
<p style="text-align: center;"><b>**May not be necessary**</b></p> <ul style="list-style-type: none"> <li>• If a Re-Study is needed, Transmission Provider perform Phase 3 Re-Study within 150 calendar days and post Re-Study results on OASIS.</li> <li>• Transmission Provider to hold open Interconnection Customer Report Meeting within 10 business days of publishing Re-Study results on OASIS.</li> <li>• Interconnection Customer to demonstrate M4 Readiness if no further System Impact Re-Studies are necessary within 20 business days of Report Meeting.</li> </ul>
<b>Phase 4: Individual Facilities Study: Within 90 calendar days</b>
<ul style="list-style-type: none"> <li>• Transmission Provider to complete Facilities Study, complete and submit draft Facilities Study Report to Interconnection Customer and post results of Study on OASIS within 90 calendar days from start of Phase 4.</li> <li>• Transmission Provider to hold open Interconnection Customer Report Meeting within 10 business days of end of Phase 4.</li> <li>• Interconnection Customer to provide written comments of Facilities Study Report to Transmission Provider within 30 days of receipt of draft Facilities Study Report.</li> <li>• Transmission Provider to issue Final Facilities Study Report to Customer within 15 business days of receiving Interconnection Customer's comments or promptly upon receiving Interconnection Customer's statement that it will not provide comments.</li> </ul>
<b>Phase 5: LGIA:</b>
<ul style="list-style-type: none"> <li>• Transmission Provider to provide Interconnection Customer with draft LGIA within 30 calendar days of receipt of Interconnection Customer's Facilities Study comments.</li> <li>• Interconnection Customer to execute and return completed draft appendices within 30 calendar days of receipt of draft LGIA.</li> <li>• Deadline for LGIA negotiations to be completed within 60 calendar days of after tender of the final Interconnection Facilities Study Report.</li> <li>• Deadline for filing or executing LGIA is within 60 calendar days of after tender the draft LGIA provided to Interconnection Customer.</li> <li>• Interconnection Customer to satisfy Readiness Milestone 5 within 15 business days of receiving final LGIA</li> </ul>

Proposed Effective Date: 12-5-2019

Approved Effective Date:

**APPENDIX 1 to Revised LGIP  
INTERCONNECTION REQUEST FOR A  
LARGE GENERATING FACILITY**

1. The undersigned Interconnection Customer submits this request to interconnect its Large Generating Facility with Transmission Provider's Transmission System pursuant to a Tariff.
2. This Interconnection Request is for (check one):  
☐ A proposed new Large Generating Facility.  
☐ An increase in the generating capacity or a Material Modification of an existing Generating Facility.  
☐ A Generating Facility proposed for inclusion in a resource solicitation process.
3. The type of interconnection service requested (check one):  
☐ Energy Resource Interconnection Service  
☐ Network Resource Interconnection Service
4. Interconnection Customer provides the following information:
  - a. Address or location of the proposed new Large Generating Facility site (to the extent known) or, in the case of an existing Generating Facility, the name and specific location of the existing Generating Facility;
  - b. Maximum summer at \_\_\_\_ degrees C and winter at \_\_\_\_ degrees C megawatt electrical output of the proposed new Large Generating Facility or the amount of megawatt increase in the generating capacity of an existing Generating Facility;
  - c. General description of the equipment configuration;
  - d. Commercial Operation Date (Day, Month, and Year);
  - e. Name, address, telephone number, and e-mail address of Interconnection Customer's contact person;
  - f. Approximate location of the proposed Point of Interconnection (optional);
  - g. Interconnection Customer Data (set forth in Attachment A)
  - h. Primary frequency response operating range for electric storage resources.
  - i. Requested capacity (in MW) of Interconnection Service (if lower than the Generating Facility Capacity).
5. Interconnection Customer provides applicable study deposit amount as specified in the Revised LGIP.

\$75,000 for requests of less than 50 MW; or  
\$150,000 for requests of 50 MW and Greater, but less than 200 MW; or  
\$250,000 for requests of 200 MW and greater



Proposed Effective Date: 12-5-2019

Approved Effective Date:

6. Interconnection Customer provides Readiness Milestone 1 (M1) as specified in the Revised LGIP.

M1 is satisfied by any one of the three options below (also described in 3.4.1.f of the Revised LGIP) at Interconnection Customer's option. M1 may also be satisfied by providing additional security described in Section 7.7.5 *in lieu* of providing one of the three options to demonstrate readiness.

- i. Executed term sheet (or comparable evidence) related to a contract, binding upon the parties to the contract, for sale of (i) the constructed Generating Facility, (ii) the Generating Facility's energy, or (iii) the Generating Facility's ancillary services if the Generating Facility is an electric storage resource; where the term of sale is not less than five (5) years;
  - ii. Reasonable evidence the project has been selected in a Resource Plan or Resource Solicitation Process; or
  - iii. Provisional Large Generator Interconnection Agreement accepted for filing with FERC. Such an agreement shall not be suspended and shall include a commitment to construct the Generating Facility.
7. Interconnection Customer provides security equal to one times the study deposit described in Section 3.1 of the Revised LGIP in the form of an irrevocable letter of credit or cash.
8. If requesting NRIS: Interconnection Customer provides the expected point of delivery to deliver within the Transmission Provider's Control Area or to an adjoining Control Area if the Generating Facility is not designated a Network Resource pursuant to Section 30.2 of the Tariff.
9. Interconnection Customer provides Evidence of Site Control as specified in the Revised LGIP and Transmission Provider's business practices posted on OASIS.
10. This Interconnection Request shall be submitted to the representative indicated below:

[To be completed by Transmission Provider]

11. Representative of Interconnection Customer to contact:

[To be completed by Interconnection Customer]

12. This Interconnection Request is submitted by:

Name of Interconnection Customer: \_\_\_\_\_

By (signature): \_\_\_\_\_

Proposed Effective Date: 12-5-2019

Approved Effective Date:

Name (type or print): \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**Attachment A to Appendix 1  
Interconnection Request**

**LARGE GENERATING FACILITY DATA**

**UNIT RATINGS**

kVA \_\_\_\_\_ °F \_\_\_\_\_ Voltage \_\_\_\_\_  
Power Factor \_\_\_\_\_  
Speed (RPM) \_\_\_\_\_ Connection (e.g. Wye) \_\_\_\_\_  
Short Circuit Ratio \_\_\_\_\_ Frequency, Hertz \_\_\_\_\_  
Stator Amperes at Rated kVA \_\_\_\_\_ Field Volts \_\_\_\_\_  
Max Turbine MW \_\_\_\_\_ °F \_\_\_\_\_

**Primary frequency response operating range for electric storage resources.**

Minimum State of Charge: \_\_\_\_\_  
Maximum State of Charge: \_\_\_\_\_

**COMBINED TURBINE-GENERATOR-EXCITER INERTIA DATA**

Inertia Constant, H = \_\_\_\_\_ kW sec/kVA  
Moment-of-Inertia,  $WR^2$  = \_\_\_\_\_ lb. ft.<sup>2</sup>

**REACTANCE DATA (PER UNIT-RATED KVA)**

**DIRECT AXIS QUADRATURE AXIS**

Synchronous – saturated	$X_{dv}$ _____	$X_{qv}$ _____
Synchronous – unsaturated	$X_{di}$ _____	$X_{qi}$ _____
Transient – saturated	$X'_{dv}$ _____	$X'_{qv}$ _____
Transient – unsaturated	$X'_{di}$ _____	$X'_{qi}$ _____
Subtransient – saturated	$X''_{dv}$ _____	$X''_{qv}$ _____
Subtransient – unsaturated	$X''_{di}$ _____	$X''_{qi}$ _____
Negative Sequence – saturated	$X_{2v}$ _____	
Negative Sequence – unsaturated	$X_{2i}$ _____	

Proposed Effective Date: 12-5-2019

Approved Effective Date:

Zero Sequence – saturated  $X_{0v}$  \_\_\_\_\_  
 Zero Sequence – unsaturated  $X_{0i}$  \_\_\_\_\_  
 Leakage Reactance  $X_{lm}$  \_\_\_\_\_

Open Circuit  $T'_{do}$  \_\_\_\_\_  $T'_{qo}$  \_\_\_\_\_  
 Three-Phase Short Circuit Transient  $T'_{d3}$  \_\_\_\_\_  $T'_q$  \_\_\_\_\_  
 Line to Line Short Circuit Transient  $T'_{d1}$  \_\_\_\_\_  
 Short Circuit Subtransient  $T''_d$  \_\_\_\_\_  $T''_q$  \_\_\_\_\_  
 Open Circuit Subtransient  $T'_{d2}$  \_\_\_\_\_  
 Line to Neutral Short Circuit Transient  $T''_{do}$  \_\_\_\_\_  $T''_{qo}$  \_\_\_\_\_

**FIELD TIME CONSTANT DATA (SEC)**  
**ARMATURE TIME CONSTANT DATA (SEC)**

Three Phase Short Circuit  $T_{a3}$  \_\_\_\_\_  
 Line to Line Short Circuit  $T_{a2}$  \_\_\_\_\_  
 Line to Neutral Short Circuit  $T_{a1}$  \_\_\_\_\_

NOTE: If requested information is not applicable, indicate by marking “N/A.”

**MW CAPABILITY AND PLANT CONFIGURATION**  
**LARGE GENERATING FACILITY DATA**

**ARMATURE WINDING RESISTANCE DATA (PER UNIT)**

Positive  $R_1$  \_\_\_\_\_  
 Negative  $R_2$  \_\_\_\_\_  
 Zero  $R_0$  \_\_\_\_\_

Rotor Short Time Thermal Capacity  $I_2^2t$  = \_\_\_\_\_  
 Field Current at Rated kVA, Armature Voltage and PF = \_\_\_\_\_ amps  
 Field Current at Rated kVA and Armature Voltage, 0 PF = \_\_\_\_\_ amps  
 Three Phase Armature Winding Capacitance = \_\_\_\_\_ microfarad  
 Field Winding Resistance = \_\_\_\_\_ ohms \_\_\_\_\_ °C  
 Armature Winding Resistance (Per Phase) = \_\_\_\_\_ ohms \_\_\_\_\_ °C

**CURVES**

Provide Saturation, Vee, Reactive Capability, Capacity Temperature Correction curves.  
 Designate normal and emergency Hydrogen Pressure operating range for multiple curves.

Elevation: \_\_\_\_\_ Single Phase \_\_\_\_\_ Three Phase \_\_\_\_\_

Proposed Effective Date: 12-5-2019

Approved Effective Date:

Inverter manufacturer, model name, number, and version:

---

List of adjustable setpoints for the protective equipment or software:

---

Note: A completed General Electric Company Power Systems Load Flow (PSLF) data sheet or other compatible formats, such as IEEE and PTI power flow models, must be supplied with the Interconnection Request. If other data sheets are more appropriate to the proposed device, then they shall be provided and discussed at Scoping Meeting.

### **Project Information: Site Control and Adequacy**

Total acres required to construct the Generating Facility: \_\_\_\_\_

Total acres under site control for the Generating Facility at the time of application:

---

Is Site Control required for Interconnection Facilities, i.e. transmission gen-tie or substation, to interconnect the Generating Facility? \_\_\_\_ Y \_\_\_\_ N

If yes, how many miles of gen-tie right-of-way are required? \_\_\_\_\_

What is the total number of acres required to build the gen-tie? \_\_\_\_\_

How many miles of gen-tie right-of-way are under Site Control at the time of this application?

---

List any local, state, or federal government permits required to construct the Generating Facility and any applicable Interconnection Facilities, i.e. transmission gen-tie:

---

---

Proposed Effective Date: 12-5-2019

Approved Effective Date:

### INDUCTION GENERATORS

- (\*) Field Volts: \_\_\_\_\_
- (\*) Field Amperes: \_\_\_\_\_
- (\*) Motoring Power (kW): \_\_\_\_\_
- (\*) Neutral Grounding Resistor (If Applicable): \_\_\_\_\_
- (\*)  $I_2^2t$  or K (Heating Time Constant): \_\_\_\_\_
- (\*) Rotor Resistance: \_\_\_\_\_
- (\*) Stator Resistance: \_\_\_\_\_
- (\*) Stator Reactance: \_\_\_\_\_
- (\*) Rotor Reactance: \_\_\_\_\_
- (\*) Magnetizing Reactance: \_\_\_\_\_
- (\*) Short Circuit Reactance: \_\_\_\_\_
- (\*) Exciting Current: \_\_\_\_\_
- (\*) Temperature Rise: \_\_\_\_\_
- (\*) Frame Size: \_\_\_\_\_
- (\*) Design Letter: \_\_\_\_\_
- (\*) Reactive Power Required In Vars (No Load): \_\_\_\_\_
- (\*) Reactive Power Required In Vars (Full Load): \_\_\_\_\_
- (\*) Total Rotating Inertia, H: \_\_\_\_\_ Per Unit on KVA Base

Note: Please consult Transmission Provider prior to submitting the Interconnection Request to determine if the information designated by (\*) is required.

Proposed Effective Date: 12-5-2019

**APPENDIX 2 to Revised LGIP  
DEFINITIVE INTERCONNECTION SYSTEM IMPACT STUDY AGREEMENT**

**THIS AGREEMENT** is made and entered into this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_ by and between \_\_\_\_\_, a \_\_\_\_\_ organized and existing under the laws of the State of \_\_\_\_\_, (“Interconnection Customer,”) and \_\_\_\_\_ a \_\_\_\_\_ existing under the laws of the State of \_\_\_\_\_, (“Transmission Provider”). Interconnection Customer and Transmission Provider each may be referred to as a “Party,” or collectively as the “Parties.”

**RECITALS**

**WHEREAS**, Interconnection Customer is proposing to develop a Large Generating Facility or generating capacity addition to an existing Generating Facility consistent with the Interconnection Request submitted by Interconnection Customer dated \_\_\_\_\_; and

**WHEREAS**, Interconnection Customer desires to interconnect the Large Generating Facility with the Transmission System; and

**WHEREAS**, Interconnection Customer has requested Transmission Provider to perform a Definitive Interconnection System Impact Study to assess the impact of interconnecting the Large Generating Facility to the Transmission System, and of any Affected Systems; and

**WHEREAS**, Interconnection Customer commits to provide certain Readiness Milestones through the Definitive Interconnection Study process as described in Section 7.7 of the Revised LGIP.

**NOW, THEREFORE**, in consideration of and subject to the mutual covenants contained herein the Parties agreed as follows:

- 1.0 When used in this Agreement, with initial capitalization, the terms specified shall have the meanings indicated in Transmission Provider's FERC-approved Revised LGIP.
- 2.0 Interconnection Customer elects and Transmission Provider shall cause to be performed a Definitive Interconnection System Impact Study consistent with Sections 7.3 and 7.4 of this Revised LGIP in accordance with the Tariff.
- 3.0 The scope of the Definitive Interconnection System Impact Study shall be subject to the assumptions set forth in Attachment A to this Agreement.
- 4.0 The Definitive Interconnection System Impact Study shall be based upon the technical information provided by Interconnection Customer in the Interconnection Request, subject to any modifications in accordance with Section 4.4 of the Revised LGIP. Transmission Provider reserves the right to request additional technical information from Interconnection Customer as may reasonably become necessary consistent with Good Utility Practice during the course of the Definitive Interconnection System Impact Study. If Interconnection Customer modifies its designated Point of Interconnection,

Proposed Effective Date: 12-5-2019

Interconnection Request, or the technical information provided therein is modified, the time to complete the Definitive Interconnection System Impact Study may be extended.

5.0 The Definitive Interconnection System Impact Study report (Phase 2 or Phase 3 Report) shall provide the following information, as appropriate:

- identification of any circuit breaker short circuit capability limits exceeded as a result of the interconnection;
- identification of any thermal overload or voltage limit violations resulting from the interconnection;
- identification of any instability or inadequately damped response to system disturbances resulting from the interconnection; and
- description and non-binding, good faith estimated cost of facilities required to interconnect the Large Generating Facility to the Transmission System and to address the identified short circuit, instability, and power flow issues.

6.0 Interconnection Customer shall provide the deposit as specified in Section 3.1 of the Revised LGIP for the performance of the Definitive Interconnection System Impact Study and the Interconnection Facilities Study. Transmission Provider's good faith estimate for the time of completion of the Definitive Interconnection System Impact Study (Phase 2) is [insert date].

Upon receipt of the Interconnection Facilities Study results (Phase 4 Results), or withdrawal of the Interconnection Request, Transmission Provider shall charge and Interconnection Customer shall pay the actual costs of the Definitive Interconnection System Impact Study, and the Withdrawal Penalty, as applicable, allocated according to Sections 4.2.3 and 8.1 of the Revised LGIP and the cost of the individual Interconnection Facilities Study.

Any difference between the study deposit and the actual cost of the study shall be paid by or refunded to Interconnection Customer, as appropriate, except as otherwise provided herein. As provided in Section 12.3 of the Revised LGIP, Interconnection Customer has thirty (30) Calendar Days of receipt of an invoice from Transmission Provider to pay any undisputed costs. If invoices are not paid within thirty (30) Calendar Days of receipt of an invoice, Transmission Provider shall draw upon the security provided to settle all accounts, which shall include any offsets of amounts due and owing by Transmission Provider. After the final invoice is paid and all accounts are settled, Transmission Provider shall refund all remaining security.

7.0 Miscellaneous. The Definitive Interconnection System Impact Study Agreement shall include standard miscellaneous terms including, but not limited to, indemnities, representations, disclaimers, warranties, governing law, amendment, execution, waiver, enforceability and assignment, that reflect best practices in the electric industry, that are consistent with regional practices, Applicable Laws and Regulations



Proposed Effective Date: 12-5-2019

Approved Effective Date:

and the organizational nature of each Party. All of these provisions, to the extent practicable, shall be consistent with the provisions of the Revised LGIP and the LGIA.

IN WITNESS THEREOF, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

**[Insert name of Transmission Provider or Transmission Owner, if applicable]**

By: \_\_\_\_\_ By: \_\_\_\_\_

Title: \_\_\_\_\_ Title: \_\_\_\_\_

Date: \_\_\_\_\_ Date: \_\_\_\_\_

**[Insert name of Interconnection Customer]**

By: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Proposed Effective Date: 12-5-2019

**Attachment A to Appendix 2  
Definitive Interconnection System Impact Study Agreement**

**ASSUMPTIONS USED IN CONDUCTING THE  
DEFINITIVE INTERCONNECTION SYSTEM IMPACT STUDY**

The Definitive Interconnection System Impact Study shall be based upon the information set forth in the Interconnection Request(s) and results of applicable prior studies, subject to any modifications in accordance with Section 4.4 of the Revised LGIP, and the following assumptions:

Designation of Point of Interconnection and configuration to be studied.

[Above assumptions to be completed by Interconnection Customer and other assumptions to be provided by Interconnection Customer and Transmission Provider]

Proposed Effective Date: 12-5-2019

### **APPENDIX 3 to Revised LGIP INTERCONNECTION FACILITIES STUDY AGREEMENT**

**THIS AGREEMENT** is made and entered into this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_ by and between \_\_\_\_\_, a \_\_\_\_\_ organized and existing under the laws of the State of \_\_\_\_\_, (“Interconnection Customer,”) and \_\_\_\_\_ a \_\_\_\_\_ existing under the laws of the State of \_\_\_\_\_, (“Transmission Provider “). Interconnection Customer and Transmission Provider each may be referred to as a “Party,” or collectively as the “Parties.”

#### **RECITALS**

**WHEREAS**, Interconnection Customer is proposing to develop a Large Generating Facility or generating capacity addition to an existing Generating Facility consistent with the Interconnection Request submitted by Interconnection Customer dated \_\_\_\_\_; and

**WHEREAS**, Interconnection Customer desires to interconnect the Large Generating Facility with the Transmission System;

**WHEREAS**, Transmission Provider has completed a Definitive Interconnection System Impact Study (the “System Impact Study”) and provided the results of said study to Interconnection Customer; and

**WHEREAS**, Interconnection Customer has requested Transmission Provider to perform an Interconnection Facilities Study to specify and estimate the cost of the equipment, engineering, procurement and construction work needed to implement the conclusions of the Definitive Interconnection System Impact Study in accordance with Good Utility Practice to physically and electrically connect the Large Generating Facility to the Transmission System.

**NOW, THEREFORE**, in consideration of and subject to the mutual covenants contained herein the Parties agreed as follows:

- 1.0 When used in this Agreement, with initial capitalization, the terms specified shall have the meanings indicated in Transmission Provider's FERC-approved Revised LGIP.
- 2.0 Interconnection Customer elects and Transmission Provider shall cause an Interconnection Facilities Study consistent with Section 8 of this Revised LGIP to be performed in accordance with the Tariff.
- 3.0 The scope of the Interconnection Facilities Study shall be subject to the assumptions set forth in Attachment A to this Agreement.
- 4.0 The Interconnection Facilities Study report (i) shall provide a description of, estimated cost of, schedule for required facilities to interconnect the Large Generating Facility to the Transmission System and (ii) shall address the short

Proposed Effective Date: 12-5-2019

circuit, instability, and power flow issues identified in the Definitive Interconnection System Impact Study.

- 5.0 Interconnection Customer shall meet the requirements specified under Section 8.1 of the Revised LGIP prior to the performance of the Interconnection Facilities Study. The time for completion of the Interconnection Facilities Study is specified in Attachment A.
- 6.0 Interconnection Customer shall have provided the deposit as specified in Section 3.1 of the Revised LGIP for the performance of the Definitive Interconnection System Impact Study and the Interconnection Facilities Study.

Upon receipt of the Interconnection Facilities Study results (Phase 4 Results), Transmission Provider shall charge and Interconnection Customer shall pay the actual costs of the Definitive Interconnection System Impact Study which includes costs allocated according to Section 4.2.3 of the Revised LGIP, the cost of the individual Interconnection Facilities Study, and the withdraw penalty calculated pursuant to 3.7.1.1, if applicable.

Any difference between the study deposit and the actual cost of the study shall be paid by or refunded to Interconnection Customer, as appropriate, except as otherwise provided herein. As provided in Section 12.3 of the Revised LGIP, Interconnection Customer has thirty (30) Calendar Days of receipt of an invoice from Transmission Provider to pay any undisputed costs. If invoices are not paid within thirty (30) Calendar Days of receipt of an invoice, Transmission Provider shall draw upon the security provided to settle all accounts, which shall include any offsets of amounts due and owing by Transmission Provider. After the final invoice is paid and all accounts are settled, Transmission Provider shall refund all remaining security.

- 7.0 Miscellaneous. The Interconnection Facilities Study Agreement shall include standard miscellaneous terms including, but not limited to, indemnities, representations, disclaimers, warranties, governing law, amendment, execution, waiver, enforceability and assignment, that reflect best practices in the electric industry, and that are consistent with regional practices, Applicable Laws and Regulations, and the organizational nature of each Party. All of these provisions, to the extent practicable, shall be consistent with the provisions of the Revised LGIP and the LGIA.

Proposed Effective Date: 12-5-2019

Approved Effective Date:

**IN WITNESS WHEREOF**, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

**[Insert name of Transmission Provider or Transmission Owner, if applicable]**

By: \_\_\_\_\_ By: \_\_\_\_\_

Title: \_\_\_\_\_ Title: \_\_\_\_\_

Date: \_\_\_\_\_ Date: \_\_\_\_\_

**[Insert name of Interconnection Customer]**

By: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Proposed Effective Date: 12-5-2019

**Attachment A to Appendix 3  
Interconnection Facilities Study Agreement**

**DATA FORM TO BE PROVIDED BY INTERCONNECTION CUSTOMER  
WITH THE INTERCONNECTION FACILITIES STUDY AGREEMENT**

Provide location plan and simplified one-line diagram of the plant and station facilities. For staged projects, please indicate future generation, transmission circuits, etc.

One set of metering is required for each generation connection to the new ring bus or existing Transmission Provider station. Number of generation connections:

On the one line diagram indicate the generation capacity attached at each metering location. (Maximum load on CT/PT)

On the one line diagram indicate the location of auxiliary power. (Minimum load on CT/PT)  
Amps

Will an alternate source of auxiliary power be available during CT/PT maintenance?  
\_\_\_\_\_ Yes \_\_\_\_\_ No

Will a transfer bus on the generation side of the metering require that each meter set be designed for the total plant generation? \_\_\_\_\_ Yes \_\_\_\_\_ No (Please indicate on one line diagram).

What type of control system or PLC will be located at Interconnection Customer's Large Generating Facility?

\_\_\_\_\_

What protocol does the control system or PLC use?

\_\_\_\_\_

Please provide a 7.5-minute quadrangle of the site. Sketch the plant, station, transmission line, and property line.

Physical dimensions of the proposed interconnection station:

\_\_\_\_\_

Bus length from generation to interconnection station:

\_\_\_\_\_

Line length from interconnection station to Transmission Provider's transmission line.

\_\_\_\_\_

Tower number observed in the field. (Painted on tower leg)\* \_\_\_\_\_

Number of third party easements required for transmission lines\*:

Proposed Effective Date: 12-5-2019

Approved Effective Date:

---

\* To be completed in coordination with Transmission Provider.

Is the Large Generating Facility in Transmission Provider's service area?

\_\_\_\_\_ Yes \_\_\_\_\_ No      Local provider: \_\_\_\_\_

Please provide proposed schedule dates:

Begin Construction      Date: \_\_\_\_\_

Generator step-up transformer  
receives back feed power      Date: \_\_\_\_\_

Generation Testing      Date: \_\_\_\_\_

Commercial Operation      Date: \_\_\_\_\_

Proposed Effective Date: 12-5-2019

## APPENDIX 4 to Revised LGIP

### Transitional Serial Interconnection Facilities Study Agreement

**THIS AGREEMENT** is made and entered into this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_ by and between \_\_\_\_\_, a \_\_\_\_\_ organized and existing under the laws of the State of \_\_\_\_\_, ("Interconnection Customer,") and \_\_\_\_\_ a \_\_\_\_\_ existing under the laws of the State of \_\_\_\_\_, ("Transmission Provider"). Interconnection Customer and Transmission Provider each may be referred to as a "Party," or collectively as the "Parties."

### RECITALS

**WHEREAS**, Interconnection Customer is proposing to develop a Large Generating Facility or generating capacity addition to an existing Generating Facility consistent with the Interconnection Request submitted by Interconnection Customer dated \_\_\_\_\_; and

**WHEREAS**, Interconnection Customer desires to interconnect the Large Generating Facility with the Transmission System; and

**WHEREAS**, Interconnection Customer has requested Transmission Provider to continue processing its Interconnection Facilities Study to specify and estimate the cost of the equipment, engineering, procurement and construction work needed to implement the conclusions of the System Impact Study in accordance with Good Utility Practice to physically and electrically connect the Large Generating Facility to the Transmission System; and

**WHEREAS**, Interconnection Customer has executed and Transmission Provider has accepted an Interconnection Facilities Study Agreement prior to September 27, 2019; and

**WHEREAS**, Interconnection Customer has provided certain requirements described in Section 5.1.1.1 of the Revised LGIP including a deposit on Transmission Provider's Interconnection Facilities and Network Upgrades.

**NOW, THEREFORE**, in consideration of and subject to the mutual covenants contained herein the Parties agreed as follows:

- 1.0 When used in this Agreement, with initial capitalization, the terms specified shall have the meanings indicated in Transmission Provider's FERC-approved Revised LGIP.
- 2.0 Interconnection Customer elects and Transmission Provider shall cause to be performed an Interconnection Facilities Study consistent with Section 8 of this Revised LGIP in accordance with the Tariff.
- 3.0 The scope of the Interconnection Facilities Study shall be subject to the assumptions set forth in Attachment A to this Agreement which shall be the same assumptions as the previous Interconnection Facilities Study Agreement.



Proposed Effective Date: 12-5-2019

- 4.0 The Interconnection Facilities Study report (i) shall provide a description, estimated cost of (consistent with Attachment A), schedule for required facilities to interconnect the Large Generating Facility to the Transmission System and (ii) shall address the short circuit, instability, and power flow issues identified in the most recently published System Impact Study.
- 5.0 Interconnection Customer has met certain requirements described in Section 5.1.1.1 of the Revised LGIP. The time for completion of the Interconnection Facilities Study is specified in Attachment A.
- 6.0 Interconnection Customer shall have previously provided the deposit of one hundred thousand dollars (\$100,000.00) for the performance of the Interconnection Facilities Study.

Upon receipt of the Interconnection Facilities Study results, Transmission Provider shall charge and Interconnection Customer shall pay the actual costs of the Interconnection Facilities Study.

Any difference between the study deposit and the actual cost of the study shall be paid by or refunded to Interconnection Customer, as appropriate.

- 7.0 Miscellaneous. The Interconnection Facilities Study Agreement shall include standard miscellaneous terms including, but not limited to, indemnities, representations, disclaimers, warranties, governing law, amendment, execution, waiver, enforceability and assignment, that reflect best practices in the electric industry, and that are consistent with regional practices, Applicable Laws and Regulations, and the organizational nature of each Party. All of these provisions, to the extent practicable, shall be consistent with the provisions of the Revised LGIP and the LGIA.

Proposed Effective Date: 12-5-2019

Approved Effective Date:

**IN WITNESS WHEREOF**, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

**[Insert name of Transmission Provider or Transmission Owner, if applicable]**

By: \_\_\_\_\_ By: \_\_\_\_\_

Title: \_\_\_\_\_ Title: \_\_\_\_\_

Date: \_\_\_\_\_ Date: \_\_\_\_\_

**[Insert name of Interconnection Customer]**

By: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**Attachment A to Appendix 4  
Transitional Serial Interconnection Facilities Study Agreement**

**ASSUMPTIONS USED IN CONDUCTING THE  
TRANSITIONAL SERIAL INTERCONNECTION FACILITIES STUDY**

[Assumptions to be completed by Interconnection Customer and Transmission Provider]

Proposed Effective Date: 12-5-2019

## **APPENDIX 5.1 to Revised LGIP Transitional Cluster Study Agreement**

**THIS AGREEMENT** is made and entered into this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_ by and between \_\_\_\_\_, a \_\_\_\_\_ organized and existing under the laws of the State of \_\_\_\_\_, (“Interconnection Customer,”) and \_\_\_\_\_ a \_\_\_\_\_ existing under the laws of the State of \_\_\_\_\_, (“Transmission Provider”). Interconnection Customer and Transmission Provider each may be referred to as a “Party,” or collectively as the “Parties.”

### **RECITALS**

**WHEREAS**, Interconnection Customer is proposing to develop a Large Generating Facility or generating capacity addition to an existing Generating Facility consistent with the Interconnection Request submitted by Interconnection Customer dated \_\_\_\_\_; and

**WHEREAS**, Interconnection Customer desires to interconnect the Large Generating Facility with the Transmission System; and

**WHEREAS**, Interconnection Customer has requested Transmission Provider to perform a “Transitional Cluster Study,” which is a combined system impact and interconnection facility Cluster Study to specify and estimate the cost of the equipment, engineering, procurement and construction work needed to physically and electrically connect the Large Generating Facility to the Transmission System; and

**WHEREAS**, Interconnection Customer has provided certain requirements described in Section 5.1.1.2 of the Revised LGIP including a deposit of five million dollars (\$5,000,000) on expected Transmission Provider’s Interconnection Facilities and Network Upgrades; and

**WHEREAS**, Interconnection Customer has a valid Queue Position as of September 27, 2019; and

**NOW, THEREFORE**, in consideration of and subject to the mutual covenants contained herein the Parties agreed as follows:

- 1.0 When used in this Agreement, with initial capitalization, the terms specified shall have the meanings indicated in Transmission Provider's FERC-approved Revised LGIP.
- 2.0 Interconnection Customer elects and Transmission Provider shall cause to be performed a combined system impact and interconnection facility Cluster Study.
- 3.0 The Transitional Cluster Study shall be based upon the technical information provided by Interconnection Customer in the Interconnection Request. Transmission Provider reserves the right to request additional technical information from Interconnection Customer as may reasonably become

Proposed Effective Date: 12-5-2019

necessary consistent with Good Utility Practice during the course of the Transitional Cluster Study and Interconnection Customer shall provide such data as quickly as reasonable.

4.0 The Transitional Cluster Study report shall provide the following information:

- identification of any circuit breaker short circuit capability limits exceeded as a result of the interconnection;
- identification of any thermal overload or voltage limit violations resulting from the interconnection;
- identification of any instability or inadequately damped response to system disturbances resulting from the interconnection and
- shall provide a description, estimated cost of, schedule for required facilities to interconnect the Large Generating Facility to the Transmission System and (ii) shall address the short circuit, instability, and power flow issues identified in the most recently published System Impact Study.

5.0 Interconnection Customer has met certain requirements described in Section 5.1.1.2 of the Revised LGIP.

6.0 Interconnection Customer shall have previously provided a deposit for the performance of Interconnection Studies.

Upon receipt of the Transitional Cluster Study results, Transmission Provider shall charge and Interconnection Customer shall pay the actual costs of the Transitional Cluster Study.

Any difference between the study deposit and the actual cost of the study shall be paid by or refunded to Interconnection Customer, as appropriate.

7.0 Miscellaneous. The Interconnection Facilities Study Agreement shall include standard miscellaneous terms including, but not limited to, indemnities, representations, disclaimers, warranties, governing law, amendment, execution, waiver, enforceability and assignment, that reflect best practices in the electric industry, and that are consistent with regional practices, Applicable Laws and Regulations, and the organizational nature of each Party. All of these provisions, to the extent practicable, shall be consistent with the provisions of the Revised LGIP and the LGIA.

Proposed Effective Date: 12-5-2019

Approved Effective Date:

**IN WITNESS WHEREOF**, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

**[Insert name of Transmission Provider or Transmission Owner, if applicable]**

By: \_\_\_\_\_ By: \_\_\_\_\_

Title: \_\_\_\_\_ Title: \_\_\_\_\_

Date: \_\_\_\_\_ Date: \_\_\_\_\_

**[Insert name of Interconnection Customer]**

By: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Proposed Effective Date: 12-5-2019

**Attachment A to Appendix 5.1  
Transitional Cluster Study Agreement**

**ASSUMPTIONS USED IN CONDUCTING THE  
TRANSITIONAL CLUSTER STUDY (A COMBINED SYSTEM IMPACT AND  
INTERCONNECTION FACILITIES STUDY)**

[Assumptions to be completed by Interconnection Customer Transmission Provider]

Proposed Effective Date: 12-5-2019

**APPENDIX 5.2 to REVISED LGIP  
PROVISIONAL INTERCONNECTION STUDY AGREEMENT**

**THIS AGREEMENT** is made and entered into this \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_ by and between \_\_\_\_\_, a \_\_\_\_\_ organized and existing under the laws of the State of \_\_\_\_\_, ("Interconnection Customer,") and \_\_\_\_\_ a \_\_\_\_\_ existing under the laws of the State of \_\_\_\_\_, ("Transmission Provider "). Interconnection Customer and Transmission Provider each may be referred to as a "Party," or collectively as the "Parties."

**RECITALS**

**WHEREAS**, Interconnection Customer is proposing to develop a Large Generating Facility or generating capacity addition to an existing Generating Facility consistent with the Interconnection Request submitted by Interconnection Customer dated \_\_\_\_\_; and

**WHEREAS**, Interconnection Customer is proposing to establish a provisional interconnection with the Transmission System; and

**WHEREAS**, Interconnection Customer has submitted to Transmission Provider an Interconnection Request; and

**NOW, THEREFORE**, in consideration of and subject to the mutual covenants contained herein the Parties agree as follows:

- 1.0 When used in this Agreement, with initial capitalization, the terms specified shall have the meanings indicated in Transmission Provider's FERC-approved Revised LGIP.
- 2.0 Interconnection Customer elects and Transmission Provider shall cause a Provisional Interconnection Study in order to provide the service described in Article 5.9.2.
- 3.0 3.0 The Provisional Interconnection Study will determine if stability, short circuit, thermal, and/or voltage issues would arise if Interconnection Customer interconnects with Provisional Interconnection Service. Transmission Provider shall determine any Interconnection Facilities, Network Upgrades, Distribution Upgrades, or System Protection Facilities necessary to meet the requirements of NERC, or any applicable Regional Entity for the interconnection of the new, modified and/or expanded Generating Facility.
- 4.0 4.0 The Provisional Interconnection Study shall determine the initial maximum permissible output of the Generating Facility.
- 5.0 The scope of the Provisional Interconnection Study shall be subject to the assumptions set forth in Attachment A to this Agreement.



Proposed Effective Date: 12-5-2019

- 6.0 Interconnection Customer shall provide a deposit of \$10,000 for the performance of the Provisional Interconnection Study. Transmission Provider's good faith estimate for the time of completion of the Provisional Interconnection Service Study is [insert date].

Upon receipt of the Provisional Interconnection Study, Transmission Provider shall charge and Interconnection Customer shall pay the actual costs of the Provisional Interconnection Study.

Any difference between the initial payment and the actual cost of the study shall be paid by or refunded to Interconnection Customer, as appropriate.

- 7.0 Miscellaneous. The Provisional Interconnection Study Agreement shall include standard miscellaneous terms including, but not limited to, indemnities, representations, disclaimers, warranties, governing law, amendment, execution, waiver, enforceability and assignment, that reflect best practices in the electric industry, and that are consistent with regional practices, Applicable Laws and Regulations, and the organizational nature of each Party. All of these provisions, to the extent practicable, shall be consistent with the provisions of the Revised LGIP and the LGIA.

**IN WITNESS WHEREOF**, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

**[Insert name of Transmission Provider or Transmission Owner, if applicable]**

By: \_\_\_\_\_ By: \_\_\_\_\_

Title: \_\_\_\_\_ Title: \_\_\_\_\_

Date: \_\_\_\_\_ Date: \_\_\_\_\_

**[Insert name of Interconnection Customer]**

By: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**Attachment A**  
**Appendix 5.2**  
**Provisional Interconnection**  
**Study Agreement**

**ASSUMPTIONS USED IN CONDUCTING**  
**THE PROVISIONAL INTERCONNECTION STUDY**

[To be completed by Transmission Provider consistent with Article 5.9.2 of the LGIA.]

Proposed Effective Date: 12-5-2019

### **APPENDIX 5.3 to REVISED LGIP SURPLUS INTERCONNECTION STUDY AGREEMENT**

**THIS AGREEMENT** is made and entered into this \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_ by and between \_\_\_\_\_, a \_\_\_\_\_ organized and existing under the laws of the State of \_\_\_\_\_, ("Interconnection Customer,") and \_\_\_\_\_ a \_\_\_\_\_ existing under the laws of the State of \_\_\_\_\_, ("Transmission Provider "). Interconnection Customer and Transmission Provider each may be referred to as a "Party," or collectively as the "Parties."

#### **RECITALS**

**WHEREAS**, Interconnection Customer is requesting to utilize Surplus Interconnection Service as described in Section 3.3 of the Revised LGIP; and

**WHEREAS**, Interconnection Customer is proposing to utilize an existing interconnection with the Transmission System; and

**NOW, THEREFORE**, in consideration of and subject to the mutual covenants contained herein the Parties agree as follows:

- 1.0 When used in this Agreement, with initial capitalization, the terms specified shall have the meanings indicated in Transmission Provider's FERC-approved Revised LGIP.
- 2.0 Interconnection Customer elects and Transmission Provider shall cause an Surplus Interconnection Study consistent with Section 3.3 of this Revised LGIP to be performed in accordance with the Tariff.
- 3.0 The scope of the Surplus Interconnection Study shall be subject to the assumptions set forth in Attachment A to this Agreement.
- 4.0 Studies for Surplus Interconnection Service shall consist of reactive power, short circuit/fault duty, stability analyses, and any other appropriate studies. Steady-state (thermal/voltage) analyses may be performed as necessary to ensure that all required reliability conditions are studied. If the Surplus Interconnection Service was not studied under off-peak conditions, off-peak steady state analyses shall be performed to the required level necessary to demonstrate reliable operation of the Surplus Interconnection Service. If the original System Impact Study is not available for the Surplus Interconnection Service, both off-peak and peak analysis may need to be performed for the existing Generating Facility associated with the request for Surplus Interconnection Service. The reactive power, short circuit/fault duty, stability, and steady-state analyses for Surplus Interconnection Service will identify

Proposed Effective Date: 12-5-2019

Approved Effective Date:

any additional Interconnection Facilities and/or Network Upgrades. Surplus Interconnection Service is only available up to the amount that can be accommodated without requiring new Network Upgrades.

- 5.0 Interconnection Customer shall provide a deposit of \$10,000 for the performance of the Surplus Interconnection Study. Transmission Provider's good faith estimate for the time of completion of the Surplus Interconnection Study is [insert date].

Upon receipt of the Surplus Interconnection Study, Transmission Provider shall charge and Interconnection Customer shall pay the actual costs of the Surplus Interconnection Study.

Any difference between the initial payment and the actual cost of the study shall be paid by or refunded to Interconnection Customer, as appropriate.

- 7.0 Miscellaneous. The Surplus Interconnection Study shall include standard miscellaneous terms including, but not limited to, indemnities, representations, disclaimers, warranties, governing law, amendment, execution, waiver, enforceability and assignment, that reflect best practices in the electric industry, and that are consistent with regional practices, Applicable Laws and Regulations, and the organizational nature of each Party. All of these provisions, to the extent practicable, shall be consistent with the provisions of the Revised LGIP and the LGIA.

**IN WITNESS WHEREOF**, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

**[Insert name of Transmission Provider or Transmission Owner, if applicable]**

By: \_\_\_\_\_ By: \_\_\_\_\_

Title: \_\_\_\_\_ Title: \_\_\_\_\_

Date: \_\_\_\_\_ Date: \_\_\_\_\_

**[Insert name of Interconnection Customer]**

By: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**Attachment A**  
**Appendix 5.3**  
**Surplus Interconnection**  
**Study Agreement**

**ASSUMPTIONS USED IN CONDUCTING**  
**THE SURPLUS INTERCONNECTION STUDY**

[To be completed by Interconnection Customer and Transmission Provider consistent with  
Section 3.3 of the Revised LGIP.]

Proposed Effective Date: 12-5-2019

**APPENDIX 5.4 to Revised LGIP  
INFORMATIONAL INTERCONNECTION STUDY REQUEST**

1. The undersigned Interconnection Customer submits this request to evaluate the interconnection of its Generating Facility with Transmission Provider's Transmission System pursuant to the Tariff.
2. The type of interconnection service to be evaluated (check one):  
☐ Energy Resource Interconnection Service  
☐ Network Resource Interconnection Service
3. Interconnection Customer provides the following information:
  - a. Address or location of the proposed new Large Generating Facility site (to the extent known) or, in the case of an existing Generating Facility, the name and specific location of the existing Generating Facility;
  - b. Maximum summer at \_\_\_\_ degrees C and winter at \_\_\_\_ degrees C megawatt electrical output of the proposed new Large Generating Facility or the amount of megawatt increase in the generating capacity of an existing Generating Facility;
  - c. General description of the equipment configuration;
  - d. Commercial Operation Date to be studied (Day, Month, and Year);
  - e. Name, address, telephone number, and e-mail address of Interconnection Customer's contact person;
  - f. Approximate location of the proposed Point of Interconnection;
  - g. Interconnection Customer Data (set forth in Attachment A)
  - h. Primary frequency response operating range for electric storage resources.
  - i. Requested capacity (in MW) of Interconnection Service (if lower than the Generating Facility Capacity); and
  - j. A Scope of Work including any additional information that may be reasonably required.
4. \$10,000 study deposit amount as specified in the Revised LGIP.
5. For study purposes, the point of delivery to deliver within the Control Area or to adjoining Control Area if the Generating Facility is not designated a Network Resource pursuant to Section 30.2 of the Tariff.
6. This Informational Interconnection Study Request shall be submitted to the representative indicated below:

[To be completed by Transmission Provider]

7. Representative of Interconnection Customer to contact:

Proposed Effective Date: 12-5-2019

Approved Effective Date:

[To be completed by Interconnection Customer]

8. This Interconnection Request is submitted by:

Name of Interconnection Customer: \_\_\_\_\_

By (signature): \_\_\_\_\_

Name (type or print): \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Proposed Effective Date: 12-5-2019

**Attachment A to Appendix 5.4  
Informational Interconnection Study Request**

**LARGE GENERATING FACILITY DATA**

**UNIT RATINGS**

kVA \_\_\_\_\_ °F \_\_\_\_\_ Voltage \_\_\_\_\_  
Power Factor \_\_\_\_\_  
Speed (RPM) \_\_\_\_\_ Connection (e.g. Wye) \_\_\_\_\_  
Short Circuit Ratio \_\_\_\_\_ Frequency, Hertz \_\_\_\_\_  
Stator Amperes at Rated kVA \_\_\_\_\_ Field Volts \_\_\_\_\_  
Max Turbine MW \_\_\_\_\_ °F \_\_\_\_\_

**Primary frequency response operating range for electric storage resources.**

Minimum State of Charge: \_\_\_\_\_  
Maximum State of Charge: \_\_\_\_\_

**COMBINED TURBINE-GENERATOR-EXCITER INERTIA DATA**

Inertia Constant, H = \_\_\_\_\_ kW sec/kVA  
Moment-of-Inertia,  $WR^2$  = \_\_\_\_\_ lb. ft.<sup>2</sup>

**REACTANCE DATA (PER UNIT-RATED KVA)**

**DIRECT AXIS QUADRATURE AXIS**

Synchronous – saturated	$X_{dv}$ _____	$X_{qv}$ _____
Synchronous – unsaturated	$X_{di}$ _____	$X_{qi}$ _____
Transient – saturated	$X'_{dv}$ _____	$X'_{qv}$ _____
Transient – unsaturated	$X'_{di}$ _____	$X'_{qi}$ _____
Subtransient – saturated	$X''_{dv}$ _____	$X''_{qv}$ _____
Subtransient – unsaturated	$X''_{di}$ _____	$X''_{qi}$ _____
Negative Sequence – saturated	$X_{2v}$ _____	
Negative Sequence – unsaturated	$X_{2i}$ _____	
Zero Sequence – saturated	$X_{0v}$ _____	
Zero Sequence – unsaturated	$X_{0i}$ _____	
Leakage Reactance	$X_{lm}$ _____	



Proposed Effective Date: 12-5-2019

Open Circuit	$T'_{do}$ _____	$T'_{qo}$ _____
Three-Phase Short Circuit Transient	$T'_{d3}$ _____	$T'_q$ _____
Line to Line Short Circuit Transient	$T'_{d1}$ _____	
Short Circuit Subtransient	$T''_d$ _____	$T''_q$ _____
Open Circuit Subtransient	$T'_{d2}$ _____	
Line to Neutral Short Circuit Transient	$T''_{do}$ _____	$T''_{qo}$ _____

**FIELD TIME CONSTANT DATA (SEC)  
 ARMATURE TIME CONSTANT DATA (SEC)**

Three Phase Short Circuit	$T_{a3}$ _____
Line to Line Short Circuit	$T_{a2}$ _____
Line to Neutral Short Circuit	$T_{a1}$ _____

NOTE: If requested information is not applicable, indicate by marking "N/A."

**MW CAPABILITY AND PLANT CONFIGURATION  
 LARGE GENERATING FACILITY DATA**

**ARMATURE WINDING RESISTANCE DATA (PER UNIT)**

Positive	$R_1$ _____
Negative	$R_2$ _____
Zero	$R_0$ _____

Rotor Short Time Thermal Capacity  $I_2^2t$  = \_\_\_\_\_  
 Field Current at Rated kVA, Armature Voltage and PF = \_\_\_\_\_amps  
 Field Current at Rated kVA and Armature Voltage, 0 PF = \_\_\_\_\_amps  
 Three Phase Armature Winding Capacitance = \_\_\_\_\_microfarad  
 Field Winding Resistance = \_\_\_\_\_ ohms \_\_\_\_\_°C  
 Armature Winding Resistance (Per Phase) = \_\_\_\_\_ ohms \_\_\_\_\_°C

**CURVES**

Provide Saturation, Vee, Reactive Capability, Capacity Temperature Correction curves.  
 Designate normal and emergency Hydrogen Pressure operating range for multiple curves.

**GENERATOR STEP-UP TRANSFORMER DATA RATINGS**

Capacity	Self-cooled/ Maximum Nameplate
_____	/_____kVA

Proposed Effective Date: 12-5-2019

Approved Effective Date:

Voltage Ratio(Generator Side/System side/Tertiary)  
\_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_ kV

Winding Connections (Low V/High V/Tertiary V (Delta or Wye))  
\_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_

Fixed Taps Available \_\_\_\_\_

Present Tap Setting \_\_\_\_\_

If more than one transformer stage is used to deliver the output from the proposed generator to the Transmission System, please provide the information above for each transformer or transformer type.

### IMPEDANCE

Positive

$Z_1$  (on self-cooled kVA rating) \_\_\_\_\_ % \_\_\_\_\_ X/R

Zero

$Z_0$  (on self-cooled kVA rating) \_\_\_\_\_ % \_\_\_\_\_ X/R

### EXCITATION SYSTEM DATA

Identify appropriate IEEE model block diagram of excitation system and power system stabilizer (PSS) for computer representation in power system stability simulations and the corresponding excitation system and PSS constants for use in the model.

### GOVERNOR SYSTEM DATA

Identify appropriate IEEE model block diagram of governor system for computer representation in power system stability simulations and the corresponding governor system constants for use in the model.

### WIND GENERATORS

Number of generators to be interconnected pursuant to this Interconnection Request:  
\_\_\_\_\_

Elevation: \_\_\_\_\_ Single Phase \_\_\_\_\_ Three Phase \_\_\_\_\_

Inverter manufacturer, model name, number, and version:

\_\_\_\_\_

List of adjustable setpoints for the protective equipment or software:

\_\_\_\_\_

Proposed Effective Date: 12-5-2019

Approved Effective Date:

Note: A completed General Electric Company Power Systems Load Flow (PSLF) data sheet or other compatible formats, such as IEEE and PTI power flow models, must be supplied with the Interconnection Request. If other data sheets are more appropriate to the proposed device, then they shall be provided and discussed at Scoping Meeting.

### INDUCTION GENERATORS

- (\*) Field Volts: \_\_\_\_\_
- (\*) Field Amperes: \_\_\_\_\_
- (\*) Motoring Power (kW): \_\_\_\_\_
- (\*) Neutral Grounding Resistor (If Applicable): \_\_\_\_\_
- (\*)  $I_2^2t$  or K (Heating Time Constant): \_\_\_\_\_
- (\*) Rotor Resistance: \_\_\_\_\_
- (\*) Stator Resistance: \_\_\_\_\_
- (\*) Stator Reactance: \_\_\_\_\_
- (\*) Rotor Reactance: \_\_\_\_\_
- (\*) Magnetizing Reactance: \_\_\_\_\_
- (\*) Short Circuit Reactance: \_\_\_\_\_
- (\*) Exciting Current: \_\_\_\_\_
- (\*) Temperature Rise: \_\_\_\_\_
- (\*) Frame Size: \_\_\_\_\_
- (\*) Design Letter: \_\_\_\_\_
- (\*) Reactive Power Required In Vars (No Load): \_\_\_\_\_
- (\*) Reactive Power Required In Vars (Full Load): \_\_\_\_\_
- (\*) Total Rotating Inertia, H: \_\_\_\_\_ Per Unit on KVA Base

Note: Please consult Transmission Provider prior to submitting the Informational Interconnection Study Request to determine if the information designated by (\*) is required.

Proposed Effective Date: 12-5-2019

## **APPENDIX 5.5 to Revised LGIP INFORMATIONAL INTERCONNECTION STUDY AGREEMENT**

**THIS AGREEMENT** is made and entered into this \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_ by and between \_\_\_\_\_, a \_\_\_\_\_ organized and existing under the laws of the State of \_\_\_\_\_, ("Interconnection Customer,") and \_\_\_\_\_ a \_\_\_\_\_ existing under the laws of the State of \_\_\_\_\_, ("Transmission Provider"). Interconnection Customer and Transmission Provider each may be referred to as a "Party," or collectively as the "Parties."

### **RECITALS**

**WHEREAS**, Interconnection Customer is evaluating developing a Large Generating Facility or generating capacity addition to an existing Generating Facility and

**WHEREAS**, Interconnection Customer is proposing to evaluate an interconnection with the Transmission System; and

**WHEREAS**, Interconnection Customer has submitted to Transmission Provider an Informational Interconnection Study Interconnection Request; and

**NOW, THEREFORE**, in consideration of and subject to the mutual covenants contained herein the Parties agree as follows:

- 1.0 When used in this Agreement, with initial capitalization, the terms specified shall have the meanings indicated in Transmission Provider's FERC-approved Revised LGIP.
- 2.0 Interconnection Customer elects and Transmission Provider shall cause an Informational Interconnection Study consistent with Section 6 of this Revised LGIP to be performed in accordance with the Tariff.
- 3.0 The scope of the Informational Interconnection Study shall be subject to the assumptions set forth in Attachment A to this Agreement.
- 4.0 The Informational Interconnection Study shall be performed solely for informational purposes.
- 5.0 The Informational Interconnection Study report shall provide a sensitivity analysis based on the assumptions specified by Interconnection Customer in Attachment A to this Agreement. The Informational Interconnection Study shall identify Transmission Provider's Interconnection Facilities and the Network Upgrades, and the estimated cost thereof that may be required to

Proposed Effective Date: 12-5-2019

Approved Effective Date:

provide transmission service or Interconnection Service based upon the assumptions specified by Interconnection Customer in Attachment A.

- 6.0 Interconnection Customer shall provide a deposit of ten thousand dollars (\$10,000.00) for the performance of the Informational Interconnection Study. Transmission Provider's good faith estimate for the time of completion of the Informational Interconnection Study is [insert date].

Upon receipt of the Informational Interconnection Study, Transmission Provider shall charge and Interconnection Customer shall pay the actual costs of the Informational Interconnection Study.

Any difference between the initial deposit and the actual cost of the study shall be paid by or refunded to Interconnection Customer, as appropriate.

- 7.0 Miscellaneous. The Informational Interconnection Study Agreement shall include standard miscellaneous terms including, but not limited to, indemnities, representations, disclaimers, warranties, governing law, amendment, execution, waiver, enforceability and assignment, that reflect best practices in the electric industry, and that are consistent with regional practices, Applicable Laws and Regulations, and the organizational nature of each Party. All of these provisions, to the extent practicable, shall be consistent with the provisions of the Revised LGIP and the LGIA.

**IN WITNESS WHEREOF**, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

**[Insert name of Transmission Provider or Transmission Owner, if applicable]**

By: \_\_\_\_\_ By: \_\_\_\_\_

Title: \_\_\_\_\_ Title: \_\_\_\_\_

Date: \_\_\_\_\_ Date: \_\_\_\_\_

**[Insert name of Interconnection Customer]**

By: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**APPENDIX 6 to Revised LGIP  
STANDARD LARGE GENERATOR INTERCONNECTION AGREEMENT (LGIA)**

**(Applicable to Generating Facilities that exceed 20 MW)**

Proposed Effective Date: 12-5-2019

## TABLE OF CONTENTS

Article 1. Definitions	
Article 2. Effective Date, Term, and Termination	
2.1	Effective Date.
2.2	Term of Agreement.
2.3	Termination Procedures.
2.3.1	Written Notice.
2.3.2	Default.
2.4	Termination Costs.
2.5	Disconnection.
2.6	Survival.
Article 3. Regulatory Filings	
3.1	Filing.
Article 4. Scope of Service	
4.1	Interconnection Product Options.
4.1.1	Energy Resource Interconnection Service.
4.1.1.1	The Product.
4.1.1.2	Transmission Delivery Service Implications.
4.1.2	Network Resource Interconnection Service.
4.1.2.1	The Product.
4.1.2.2	Transmission Delivery Service Implications.
4.2	Provision of Service.
4.3	Performance Standards.
4.4	No Transmission Delivery Service.
4.5	Interconnection Customer Provided Services
Article 5. Interconnection Facilities Engineering, Procurement, and Construction	
5.1	Options.
5.1.1	Standard Option.
5.1.2	Alternate Option.
5.1.3	Option to Build.
5.1.4	Negotiated Option.
5.2	General Conditions Applicable to Option to Build.
5.3	Liquidated Damages.
5.4	Power System Stabilizers.
5.5	Equipment Procurement.
5.6	Construction Commencement.
5.7	Work Progress.
5.8	Information Exchange.
5.9	Other Interconnection Options
5.9.1	Limited Operation.
5.9.2	Provisional Interconnection Service.
5.10	Interconnection Customer's Interconnection Facilities ("ICIF").
5.10.1	Interconnection Customer's Interconnection Facility Specifications.
5.10.2	Transmission Provider's Review.
5.10.3	ICIF Construction.
5.11	Transmission Provider's Interconnection Facilities Construction.

Proposed Effective Date: 12-5-2019

- 5.12 Access Rights.
- 5.13 Lands of Other Property Owners.
- 5.14 Permits.
- 5.15 Early Construction of Base Case Facilities.
- 5.16 Suspension.
  - 5.16.1 Effect of Missed Interconnection Customer LGIA Milestones.
  - 5.16.2 Effect of Suspension; Parties Obligations.
- 5.17 Taxes
  - 5.17.1 Interconnection Customer Payments Not Taxable.
  - 5.17.2 Representations and Covenants.
  - 5.17.3 Indemnification for the Cost Consequences of Current Tax Liability Imposed Upon the Transmission Provider.
  - 5.17.4 Tax Gross-Up Amount.
  - 5.17.5 Private Letter Ruling or Change or Clarification of Law.
  - 5.17.6 Subsequent Taxable Events.
  - 5.17.7 Contests.
  - 5.17.8 Refund.
  - 5.17.9 Taxes Other Than Income Taxes.
  - 5.17.10 Transmission Owners Who Are Not Transmission Providers.
- 5.18 Tax Status.
- 5.19 Modification.
  - 5.19.1 General.
  - 5.19.2 Standards.
  - 5.19.3 Modification Costs.
- Article 6. Testing and Inspection
  - 6.1 Pre-Commercial Operation Date Testing and Modifications.
  - 6.2 Post-Commercial Operation Date Testing and Modifications.
  - 6.3 Right to Observe Testing.
  - 6.4 Right to Inspect.
- Article 7. Metering
  - 7.1 General.
  - 7.2 Check Meters.
  - 7.3 Standards.
  - 7.4 Testing of Metering Equipment.
  - 7.5 Metering Data.
- Article 8. Communications
  - 8.1 Interconnection Customer Obligations.
  - 8.2 Remote Terminal Unit.
  - 8.3 No Annexation.
  - 8.4 Provision of Data from a Variable Energy Resource.
- Article 9. Operations
  - 9.1 General.
  - 9.2 Control Area Notification.
  - 9.3 Transmission Provider Obligations.
  - 9.4 Interconnection Customer Obligations.
  - 9.5 Start-Up and Synchronization.
  - 9.6 Reactive Power and Primary Frequency Response.
    - 9.6.1 Power Factor Design Criteria.



Proposed Effective Date: 12-5-2019

Approved Effective Date:

- 9.6.1.1 Synchronous Generation.
      - 9.6.1.2 Non-Synchronous Generation.
    - 9.6.2 Voltage Schedules.
      - 9.6.2.1 Voltage Regulators.
    - 9.6.3 Payment for Reactive Power.
    - 9.6.4 Primary Frequency Response.
      - 9.6.4.1 Governor or Equivalent Controls.
      - 9.6.4.2 Timely and Sustained Response.
      - 9.6.4.3 Exemptions.
      - 9.6.4.4 Electric Storage Resources.
  - 9.7 Outages and Interruptions.
    - 9.7.1 Outages.
      - 9.7.1.1 Outage Authority and Coordination.
      - 9.7.1.2 Outage Schedules.
      - 9.7.1.3 Outage Restoration.
    - 9.7.2 Interruption of Service.
    - 9.7.3 Under-Frequency and Over Frequency Conditions.
    - 9.7.4 System Protection and Other Control Requirements.
      - 9.7.4.1 System Protection Facilities.
    - 9.7.5 Requirements for Protection.
    - 9.7.6 Power Quality.
  - 9.8 Switching and Tagging Rules.
  - 9.9 Use of Interconnection Facilities by Third Parties.
    - 9.9.1 Purpose of Interconnection Facilities.
    - 9.9.2 Third Party Users.
  - 9.10 Disturbance Analysis Data Exchange.
- Article 10. Maintenance.
- 10.1 Transmission Provider Obligations.
  - 10.2 Interconnection Customer Obligations.
  - 10.3 Coordination.
  - 10.4 Secondary Systems.
  - 10.5 Operating and Maintenance Expenses.
- Article 11. Performance Obligation.
- 11.1 Interconnection Customer Interconnection Facilities.
  - 11.2 Transmission Provider's Interconnection Facilities.
  - 11.3 Network Upgrades and Distribution Upgrades.
  - 11.4 Transmission Credits.
    - 11.4.1 Repayment of Amounts Advanced for Network Upgrades.
    - 11.4.2 Special Provisions for Affected Systems.
  - 11.5 Provision of Security.
  - 11.6 Interconnection Customer Compensation.
    - 11.6.1 Interconnection Customer Compensation for Actions During Emergency Condition.
- Article 12. Invoice.
- 12.1 General.
  - 12.2 Final Invoice.
  - 12.3 Payment.
  - 12.4 Disputes.

Proposed Effective Date: 12-5-2019

Approved Effective Date:

Article 13. Emergencies

13.1 Definition.

13.2 Obligations.

13.3 Notice.

13.4 Immediate Action.

13.5 Transmission Provider Authority.

13.5.1 General.

13.5.2 Reduction and Disconnection.

13.6 Interconnection Customer Authority.

13.7 Limited Liability.

Article 14. Regulatory Requirements and Governing Law

14.1 Regulatory Requirements.

14.2 Governing Law.

Article 15. Notices

15.1 General.

15.2 Billings and Payments.

15.3 Alternative Forms of Notice.

15.4 Operations and Maintenance Notice.

Article 16. Force Majeure

Article 17. Default

17.1 Default.

17.1.1 General.

17.1.2 Right to Terminate.

Article 18. Indemnity, Consequential Damages and Insurance

18.1 Indemnity.

18.1.1 Indemnified Person.

18.1.2 Indemnifying Party.

18.1.3 Indemnity Procedures.

18.2 Consequential Damages.

18.3 Insurance.

Article 19. Assignment

19.1 Assignment.

Article 20. Severability

20.1 Severability.

Article 21. Comparability

Article 22. Confidentiality

22.1 Confidentiality.

22.1.1 Term.

22.1.2 Scope.

22.1.3 Release of Confidential Information.

22.1.4 Rights.

22.1.5 No Warranties.

22.1.6 Standard of Care.

22.1.7 Order of Disclosure.

22.1.8 Termination of Agreement.

22.1.9 Remedies.

22.1.10 Disclosure to FERC, its Staff, or a State.

Article 23. Environmental Releases

Proposed Effective Date: 12-5-2019

Article 24. Information Requirements

- 24.1 Information Acquisition.
- 24.2 Information Submission by Transmission Provider.
- 24.3 Updated Information Submission by Interconnection Customer.
- 24.4 Information Supplementation.

Article 25. Information Access and Audit Rights

- 25.1 Information Access.
- 25.2 Reporting of Non-Force Majeure Events.
- 25.3 Audit Rights.
- 25.4 Audit Rights Periods.
  - 25.4.1 Audit Rights Period for Construction-Related Accounts and Records.
  - 25.4.2 Audit Rights Period for All Other Accounts and Records.
- 25.5 Audit Results.

Article 26. Subcontractors

- 26.1 General.
- 26.2 Responsibility of Principal.
- 26.3 No Limitation by Insurance.

Article 27. Disputes

- 27.1 Submission.
- 27.2 External Arbitration Procedures.
- 27.3 Arbitration Decisions.
- 27.4 Costs.

Article 28. Representations, Warranties, and Covenants

- 28.1 General.
  - 28.1.1 Good Standing.
  - 28.1.2 Authority.
  - 28.1.3 No Conflict.
  - 28.1.4 Consent and Approval.

Article 29. Joint Operating Committee

- 29.1 Joint Operating Committee.

Article 30. Miscellaneous

- 30.1 Binding Effect.
- 30.2 Conflicts.
- 30.3 Rules of Interpretation.
- 30.4 Entire Agreement.
- 30.5 No Third Party Beneficiaries.
- 30.6 Waiver.
- 30.7 Headings.
- 30.8 Multiple Counterparts.
- 30.9 Amendment.
- 30.10 Modification by the Parties.
- 30.11 Reservation of Rights.
- 30.12 No Partnership.

Proposed Effective Date: 12-5-2019

Approved Effective Date:

Appendix A - Interconnection Facilities, Network Upgrades, and Distribution Upgrades

Appendix B – LGIA Milestones

Appendix C – Interconnection Details

Appendix D – Security Arrangements Details

Appendix E – Commercial Operation Date

Appendix F – Addresses for Delivery of Notices and Billings

Appendix G – Requirements of Generators Relying on Newer Technologies

Proposed Effective Date: 12-5-2019

## STANDARD LARGE GENERATOR INTERCONNECTION AGREEMENT

**THIS STANDARD LARGE GENERATOR INTERCONNECTION AGREEMENT** ("Agreement" or "LGIA") is made and entered into this \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, by and between \_\_\_\_\_, a \_\_\_\_\_, organized and existing under the laws of the State/Commonwealth of \_\_\_\_\_, ("Interconnection Customer" with a Large Generating Facility), and \_\_\_\_\_, a \_\_\_\_\_, organized and existing under the laws of the State/Commonwealth of \_\_\_\_\_, ("Transmission Provider and/or Transmission Owner"). Interconnection Customer and Transmission Provider each may be referred to as a "Party" or collectively as the "Parties."

### Recitals

**WHEREAS**, Transmission Provider operates the Transmission System; and

**WHEREAS**, Interconnection Customer intends to own, lease and/or control and operate the Generating Facility identified as a Large Generating Facility in Appendix C to this Agreement; and,

**WHEREAS**, Interconnection Customer and Transmission Provider have agreed to enter into this Agreement for the purpose of interconnecting the Large Generating Facility with the Transmission System;

**NOW, THEREFORE**, in consideration of and subject to the mutual covenants contained herein, it is agreed:

When used in this Standard Large Generator Interconnection Agreement, terms with initial capitalization that are not defined in Article 1 shall have the meanings specified in the Article in which they are used or the Open Access Transmission Tariff (Tariff).

### Article 1. Definitions

**Adverse System Impact** shall mean the negative effects due to technical or operational limits on conductors or equipment being exceeded that may compromise the safety and reliability of the electric system.

**Affected System** shall mean an electric system other than the Transmission Provider's Transmission System that may be affected by the proposed interconnection.

**Affected System Operator** shall mean the entity that operates an Affected System.

**Affiliate** shall mean, with respect to a corporation, partnership or other entity, each such other corporation, partnership or other entity that directly or indirectly, through one or more

Proposed Effective Date: 12-5-2019

intermediaries, controls, is controlled by, or is under common control with, such corporation, partnership or other entity.

**Ancillary Services** shall mean those services that are necessary to support the transmission of capacity and energy from resources to loads while maintaining reliable operation of the Transmission Provider's Transmission System in accordance with Good Utility Practice.

**Applicable Laws and Regulations** shall mean all duly promulgated applicable federal, state and local laws, regulations, rules, ordinances, codes, decrees, judgments, directives, or judicial or administrative orders, permits and other duly authorized actions of any Governmental Authority.

**Applicable Reliability Council** shall mean the reliability council applicable to the Transmission System to which the Generating Facility is directly interconnected.

**Applicable Reliability Standards** shall mean the requirements and guidelines of NERC, the Applicable Reliability Council, and the Control Area of the Transmission System to which the Generating Facility is directly interconnected.

**Base Case** shall mean the base case power flow, short circuit, and stability data bases used for the Interconnection Studies by the Transmission Provider or Interconnection Customer.

**Breach** shall mean the failure of a Party to perform or observe any material term or condition of the Standard Large Generator Interconnection Agreement.

**Breaching Party** shall mean a Party that is in Breach of the Standard Large Generator Interconnection Agreement.

**Business Day** shall mean Monday through Friday, excluding Federal Holidays.

**Calendar Day** shall mean any day including Saturday, Sunday or a Federal Holiday. If a requirement due date lands on a Saturday, Sunday or Federal Holiday, the requirement is due the next Business Day.

**Cluster** shall mean a group of Interconnection Requests (one or more) that are studied together for the purpose of conducting the Interconnection Studies

**Clustering** shall mean a group of Interconnection Requests (one or more) that are studied together for the purpose of conducting the Interconnection Studies

**Commercial Operation** shall mean the status of a Generating Facility that has commenced generating electricity for sale, excluding electricity generated during Trial Operation.

**Commercial Operation Date** of a unit shall mean the date on which the Generating Facility commences Commercial Operation as agreed to by the Parties pursuant to Appendix E to the Standard Large Generator Interconnection Agreement.

Proposed Effective Date: 12-5-2019

**Confidential Information** shall mean any confidential, proprietary or trade secret information of a plan, specification, pattern, procedure, design, device, list, concept, policy or compilation relating to the present or planned business of a Party, which is designated as confidential by the Party supplying the information, whether conveyed orally, electronically, in writing, through inspection, or otherwise.

**Control Area** shall mean an electrical system or systems bounded by interconnection metering and telemetry, capable of controlling generation to maintain its interchange schedule with other Control Areas and contributing to frequency regulation of the interconnection. A Control Area must be certified by an Applicable NERC Regional Reliability Entity. Control Area shall have the same meaning as Balancing Authority Area as defined by NERC.

**Default** shall mean the failure of a Breaching Party to cure its Breach in accordance with Article 17 of the Standard Large Generator Interconnection Agreement.

**Definitive Interconnection Study Process (“Definitive Interconnection Study”)** shall mean the complete definitive study process inclusive of the DISIS Request Window, Customer Engagement Window, Definitive Interconnection System Impact Study, and the Interconnection Facilities Study. Both the Resource Solicitation Cluster and the DISIS Cluster are processed under the Definitive Interconnection Study.

**Definitive Interconnection System Impact Study (“DISIS”)** shall mean an engineering study that evaluates the impact of a Cluster of Interconnection Requests on the safety and reliability of the Transmission System and, if applicable, an Affected System.

**Definitive Interconnection System Impact Study Agreement (“DISIS Agreement”)** shall mean the form of agreement contained in Appendix 2 of the Revised LGIP for conducting the Definitive Interconnection System Impact Study.

**Definitive Interconnection System Impact Study Cluster (“DISIS Cluster”)** shall mean an engineering study that evaluates the impact of a Cluster of Interconnection Requests on the safety and reliability of Transmission System and, if applicable, an Affected System.

**DISIS Request Window** shall have the meaning set forth in Section 4.2.1 of the Revised LGIP.

**Dispute Resolution** shall mean the procedure for resolution of a dispute between the Parties in which they will first attempt to resolve the dispute on an informal basis.

**Distribution System** shall mean the Transmission Provider's facilities and equipment used to transmit electricity to ultimate usage points such as homes and industries directly from nearby generators or from interchanges with higher voltage transmission networks which transport bulk power over longer distances. The voltage levels at which distribution systems operate differ among areas.

**Distribution Upgrades** shall mean the additions, modifications, and upgrades to the Transmission Provider's Distribution System at or beyond the Point of Interconnection to facilitate interconnection of the Generating Facility and render the transmission service

Proposed Effective Date: 12-5-2019

necessary to affect Interconnection Customer's wholesale sale of electricity in interstate commerce. Distribution Upgrades do not include Interconnection Facilities.

**Effective Date** shall mean the date on which the Standard Large Generator Interconnection Agreement becomes effective upon execution by the Parties subject to acceptance by FERC, or if filed unexecuted, upon the date specified by FERC.

**Emergency Condition** shall mean a condition or situation: (1) that in the judgment of the Party making the claim is imminently likely to endanger life or property; or (2) that, in the case of a Transmission Provider, is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to Transmission Provider's Transmission System, Transmission Provider's Interconnection Facilities or the electric systems of others to which the Transmission Provider's Transmission System is directly connected; or (3) that, in the case of Interconnection Customer, is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to, the Generating Facility or Interconnection Customer's Interconnection Facilities. System restoration and black start shall be considered Emergency Conditions; provided, that Interconnection Customer is not obligated by the Standard Large Generator Interconnection Agreement to possess black start capability.

**Energy Resource Interconnection Service** shall mean an Interconnection Service that allows the Interconnection Customer to connect its Generating Facility to the Transmission Provider's Transmission System to be eligible to deliver the Generating Facility's electric output using the existing firm or non-firm capacity of the Transmission Provider's Transmission System on an as available basis. Energy Resource Interconnection Service in and of itself does not convey transmission service.

**Engineering & Procurement (E&P) Agreement** shall mean an agreement that authorizes the Transmission Provider to begin engineering and procurement of long lead-time items necessary for the establishment of the interconnection in order to advance the implementation of the Interconnection Request.

**Environmental Law** shall mean Applicable Laws or Regulations relating to pollution or protection of the environment or natural resources.

**Federal Power Act** shall mean the Federal Power Act, as amended, 16 U.S.C. §§ 791a et seq.

**FERC** shall mean the Federal Energy Regulatory Commission (Commission) or its successor.

**Force Majeure** shall mean any act of God, labor disturbance, act of the public enemy, war, insurrection, riot, fire, storm or flood, explosion, breakage or accident to machinery or equipment, any order, regulation or restriction imposed by governmental, military or lawfully established civilian authorities, or any other cause beyond a Party's control. A Force Majeure event does not include acts of negligence or intentional wrongdoing by the Party claiming Force Majeure.

**Generating Facility** shall mean Interconnection Customer's device for the production and/or storage for later injection of electricity identified in the Interconnection Request, but shall not include the Interconnection Customer's Interconnection Facilities.



Proposed Effective Date: 12-5-2019

**Generating Facility Capacity** shall mean the net capacity of the Generating Facility and the aggregate net capacity of the Generating Facility where it includes multiple energy production devices.

**Good Utility Practice** shall mean any of the practices, methods and acts engaged in or approved by a significant portion of the electric industry during the relevant time period, or any of the practices, methods and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. Good Utility Practice is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather to be acceptable practices, methods, or acts generally accepted in the region.

**Governmental Authority** shall mean any federal, state, local or other governmental regulatory or administrative agency, court, commission, department, board, or other governmental subdivision, legislature, rulemaking board, tribunal, or other governmental authority having jurisdiction over the Parties, their respective facilities, or the respective services they provide, and exercising or entitled to exercise any administrative, executive, police, or taxing authority or power; provided, however, that such term does not include Interconnection Customer, Transmission Provider, or any Affiliate thereof.

**Hazardous Substances** shall mean any chemicals, materials or substances defined as or included in the definition of "hazardous substances," "hazardous wastes," "hazardous materials," "hazardous constituents," "restricted hazardous materials," "extremely hazardous substances," "toxic substances," "radioactive substances," "contaminants," "pollutants," "toxic pollutants" or words of similar meaning and regulatory effect under any applicable Environmental Law, or any other chemical, material or substance, exposure to which is prohibited, limited or regulated by any applicable Environmental Law.

**Informational Interconnection Study** shall mean an analysis based on assumptions specified by Interconnection Customer in the Informational Interconnection Study Agreement.

**Informational Interconnection Study Agreement** shall mean the form of agreement contained in Appendix 7 of the Revised LGIP for conducting the Informational Interconnection Study.

**Initial Synchronization Date** shall mean the date upon which the Generating Facility is initially synchronized and upon which Trial Operation begins.

**In-Service Date** shall mean the date upon which the Interconnection Customer reasonably expects it will be ready to begin use of the Transmission Provider's Interconnection Facilities to obtain back feed power.

**Interconnection Customer** shall mean any entity, including the Transmission Provider, Transmission Owner or any of the Affiliates or subsidiaries of either, that proposes to interconnect its Generating Facility with the Transmission Provider's Transmission System.

**Interconnection Customer's Interconnection Facilities** shall mean all facilities and equipment, as identified in Appendix A of the Standard Large Generator Interconnection

Proposed Effective Date: 12-5-2019

Agreement, that are located between the Generating Facility and the Point of Change of Ownership, including any modification, addition, or upgrades to such facilities and equipment necessary to physically and electrically interconnect the Generating Facility to the Transmission Provider's Transmission System. Interconnection Customer's Interconnection Facilities are sole use facilities (e.g. for generator interconnection).

**Interconnection Facilities** shall mean the Transmission Provider's Interconnection Facilities and the Interconnection Customer's Interconnection Facilities. Collectively, Interconnection Facilities include all facilities and equipment between the Generating Facility and the Point of Interconnection, including any modification, additions or upgrades that are necessary to physically and electrically interconnect the Generating Facility to the Transmission Provider's Transmission System. Interconnection Facilities are sole use facilities (e.g. for generator interconnection) and shall not include Distribution Upgrades, Stand Alone Network Upgrades or Network Upgrades. Interconnection Facilities may be shared by more than one Generating Facility in a Cluster.

**Interconnection Facilities Study** shall mean a study conducted by the Transmission Provider or a third party consultant for the Interconnection Customer to determine a list of facilities (including Transmission Provider's Interconnection Facilities and Network Upgrades as identified in the Definitive Interconnection System Impact Study), the cost of those facilities, and the time required to interconnect the Generating Facility with the Transmission Provider's Transmission System. The scope of the study is defined in Section 8 of the Revised LGIP.

**Interconnection Facilities Study Agreement** shall mean the form of agreement contained in Appendix 3 of the Revised LGIP for conducting the Interconnection Facilities Study.

**Interconnection Request** shall mean an Interconnection Customer's request, in the form of Appendix 1 to the Revised LGIP, in accordance with the Tariff, to interconnect a new Generating Facility, or to increase the capacity of, or make a Material Modification to the operating characteristics of, an existing Generating Facility that is interconnected with the Transmission Provider's Transmission System.

**Interconnection Service** shall mean the service provided by the Transmission Provider associated with interconnecting the Interconnection Customer's Generating Facility to the Transmission Provider's Transmission System and enabling it to receive electric energy and capacity from the Generating Facility at the Point of Interconnection, pursuant to the terms of the Standard Large Generator Interconnection Agreement and, if applicable, the Transmission Provider's Tariff.

**Interconnection Study** shall mean any of the following studies: the Informational Interconnection Study, the Definitive Interconnection System Impact Study, and the Interconnection Facilities Study described in the Standard Large Generator Interconnection Procedures or Revised LGIP

**Interconnection Study Agreement** shall mean any of the following agreements: the Informational Interconnection Study Agreement, the Definitive Interconnection System Impact Study Agreement, or the Interconnection Facilities Study Agreement described in the Standard Large Generator Interconnection Procedures or Revised LGIP.

Proposed Effective Date: 12-5-2019

**IRS** shall mean the Internal Revenue Service.

**Joint Operating Committee** shall be a group made up of representatives from Interconnection Customers and the Transmission Provider to coordinate operating and technical considerations of Interconnection Service.

**Large Generating Facility** shall mean a Generating Facility having a Generating Facility Capacity of more than 20 MW.

**LGIA Milestone** shall mean milestones provided in Appendix B of this LGIA

**Loss** shall mean any and all losses relating to injury to or death of any person or damage to property, demand, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties, arising out of or resulting from the other Party's performance, or non-performance of its obligations under the Standard Large Generator Interconnection Agreement on behalf of the indemnifying Party, except in cases of gross negligence or intentional wrongdoing by the indemnifying Party.

**Material Modification** shall mean those modifications that have a material impact on the cost or timing of any Interconnection Request with a later or equal Queue Position.

**Metering Equipment** shall mean all metering equipment installed or to be installed at the Generating Facility pursuant to the Standard Large Generator Interconnection Agreement at the metering points, including but not limited to instrument transformers, MWh-meters, data acquisition equipment, transducers, remote terminal unit, communications equipment, phone lines, and fiber optics.

**NERC** shall mean the North American Electric Reliability Council or its successor organization.

**Network Resource** shall mean any designated generating resource owned, purchased, or leased by a Network Customer under the Network Integration Transmission Service Tariff. Network Resources do not include any resource, or any portion thereof, that is committed for sale to third parties or otherwise cannot be called upon to meet the Network Customer's Network Load on a non-interruptible basis.

**Network Resource Interconnection Service** shall mean an Interconnection Service that allows the Interconnection Customer to integrate its Large Generating Facility with the Transmission Provider's Transmission System (1) in a manner comparable to that in which the Transmission Provider integrates its generating facilities to serve native load customers; or (2) in an RTO or ISO with market based congestion management, in the same manner as Network Resources. Network Resource Interconnection Service in and of itself does not convey transmission service.

**Network Upgrades** shall mean the additions, modifications, and upgrades to the Transmission Provider's Transmission System required at or beyond the point at which the Interconnection Facilities connect to the Transmission Provider's Transmission System to accommodate the

Proposed Effective Date: 12-5-2019

interconnection of the Large Generating Facility to the Transmission Provider's Transmission System.

**Notice of Dispute** shall mean a written notice of a dispute or claim that arises out of or in connection with the Standard Large Generator Interconnection Agreement or its performance.

**OASIS** shall mean the Transmission Provider's Open Access Same-Time Information System

**Party or Parties** shall mean Transmission Provider, Transmission Owner, Interconnection Customer or any combination of the above.

**Phase ("Phase 1, Phase 2, Phase 3, or Phase 4")** shall mean a distinct part of the Definitive Study Process as described in Section 7.

**Point of Change of Ownership** shall mean the point, as set forth in Appendix A to the Standard Large Generator Interconnection Agreement, where the Interconnection Customer's Interconnection Facilities connect to the Transmission Provider's Interconnection Facilities.

**Point of Interconnection** shall mean the point, as set forth in Appendix A to the Standard Large Generator Interconnection Agreement, where the Interconnection Facilities connect to the Transmission Provider's Transmission System.

**Provisional Interconnection Service** shall mean interconnection service provided by Transmission Provider associated with interconnecting the Interconnection Customer's Generating Facility to Transmission Provider's Transmission System and enabling that Transmission System to receive electric energy and capacity from the Generating Facility at the Point of Interconnection, pursuant to the terms of the Provisional Large Generator Interconnection Agreement and, if applicable, the Tariff.

**Provisional Large Generator Interconnection Agreement** shall mean the interconnection agreement for Provisional Interconnection Service established between Transmission Provider and/or the Transmission Owner and the Interconnection Customer. This agreement shall take the form of the Large Generator Interconnection Agreement, modified for provisional purposes. Provisional Large Generator Interconnection Agreements are not eligible for suspension.

**Queue** shall mean a queue for valid Interconnection Requests for the Definitive Interconnection Study Process.

**Queue Position** shall mean the order of a valid Interconnection Request, relative to all other pending valid Interconnection Requests, in the Definitive Interconnection Study Process. The Queue Position is established based upon the date and time Interconnection Customer satisfies all of the requirements of Section 7.2 of the Revised LGIP to enter the Definitive Interconnection Study Process.

**Readiness Milestone(s)** shall have the meaning set forth in Section 7.7 of the Revised LGIP.

**Reasonable Efforts** shall mean, with respect to an action required to be attempted or taken by a Party under the Standard Large Generator Interconnection Agreement, efforts that are timely

Proposed Effective Date: 12-5-2019

Approved Effective Date:

and consistent with Good Utility Practice and are otherwise substantially equivalent to those a Party would use to protect its own interests.

**Revised LGIP** shall mean the Large Generator Interconnection Process as described in this Attachment N.

**Resource Plan** shall mean any process authorized or required by Applicable Laws and Regulations for, *inter alia*, the selection of Generating Facilities interconnected to the Transmission System of Transmission Provider

**Resource Planning Entity** shall mean any entity subject to or conducting a Resource Solicitation Process.

**Resource Solicitation Cluster** shall mean a Cluster Study associated with a Resource Planning Process.

**Resource Solicitation Process** shall mean any process authorized or required by Applicable Laws and Regulations for the acquisition of Network Resources by an entity interconnected to the Transmission System of Transmission Provider.

**Scoping Meeting** shall mean the meeting between representatives of the Interconnection Customer and Transmission Provider conducted for the purpose of discussing the proposed Interconnection Request, alternative interconnection options, to exchange information including any transmission data and earlier study evaluations that would be reasonably expected to affect such interconnection options, to analyze such information, and to determine the potential feasible Points of Interconnection.

**Site Control** shall mean the exclusive land right to develop, construct, operate, and maintain the Generating Facility over the term of expected operation of the Generating Facility. Site Control shall include the right to develop, construct, operate, and maintain Interconnection Customer's Interconnection Facilities. Site Control may be demonstrated by documentation establishing: (1) ownership of, a leasehold interest in, or a right to develop a site of sufficient size to construct and operate the Generating Facility and associated Interconnection Customer's Interconnection Facilities; (2) an option to purchase or acquire a leasehold interest in a site of sufficient size to construct and operate the Generating Facility and associated Interconnection Facilities; or (3) any other documentation that clearly demonstrates the right of the Interconnection Customer to exclusively occupy a site of sufficient size to construct and operate the Generating Facility. Site Control for any co-located project is demonstrated by a contract or other agreement demonstrating shared land use for all co-located projects that meet the aforementioned provisions of this Site Control definition.

**Small Generating Facility** shall mean a Generating Facility that has a Generating Facility Capacity of no more than 20 MW.

**Stand Alone Network Upgrades** shall mean Network Upgrades that are not a part of an Affected System that an Interconnection Customer may construct without affecting day-to-day operations of the Transmission System during their construction. Both the Transmission Provider and the Interconnection Customer must agree as to what constitutes Stand Alone

Proposed Effective Date: 12-5-2019

Network Upgrades and identify them in Appendix A to the Standard Large Generator Interconnection Agreement. If the Transmission Provider and Interconnection Customer disagree about whether a particular Network Upgrade is a Stand Alone Network Upgrade, the Transmission Provider must provide the Interconnection Customer a written technical explanation outlining why the Transmission Provider does not consider the Network Upgrade to be a Stand Alone Network Upgrade within 15 days of its determination.

**Standard Large Generator Interconnection Agreement (LGIA)** shall mean the form of interconnection agreement applicable to an Interconnection Request pertaining to a Large Generating Facility that is included in the Transmission Provider's Tariff.

**Standard Large Generator Interconnection Procedures (LGIP)** shall mean the interconnection procedures applicable to an Interconnection Request pertaining to a Large Generating Facility that are included in the Transmission Provider's Tariff.

**Surplus Interconnection Service** shall mean any unneeded portion of Interconnection Service established in a Large Generator Interconnection Agreement, such that if Surplus Interconnection Service is utilized the total amount of Interconnection Service at the Point of Interconnection would remain the same.

**System Protection Facilities** shall mean the equipment, including necessary protection signal communications equipment, required to protect (1) the Transmission Provider's Transmission System from faults or other electrical disturbances occurring at the Generating Facility and (2) the Generating Facility from faults or other electrical system disturbances occurring on the Transmission Provider's Transmission System or on other delivery systems or other generating systems to which the Transmission Provider's Transmission System is directly connected.

**Tariff** shall mean the Transmission Provider's Tariff through which open access transmission service and Interconnection Service are offered, as filed with FERC, and as amended or supplemented from time to time, or any successor tariff.

**Transmission Owner** shall mean an entity that owns, leases or otherwise possesses an interest in the portion of the Transmission System at the Point of Interconnection and may be a Party to the Standard Large Generator Interconnection Agreement to the extent necessary.

**Transmission Provider** shall mean the public utility (or its designated agent) that owns, controls, or operates transmission or distribution facilities used for the transmission of electricity in interstate commerce and provides transmission service under the Tariff. The term Transmission Provider should be read to include the Transmission Owner when the Transmission Owner is separate from the Transmission Provider.

**Transmission Provider's Interconnection Facilities** shall mean all facilities and equipment owned, controlled or operated by the Transmission Provider from the Point of Change of Ownership to the Point of Interconnection as identified in Appendix A to the Standard Large Generator Interconnection Agreement, including any modifications, additions or upgrades to such facilities and equipment. Transmission Provider's Interconnection Facilities are sole use facilities (e.g. for generator interconnection) and shall not include Distribution Upgrades, Stand

Proposed Effective Date: 12-5-2019

Alone Network Upgrades or Network Upgrades. Transmission Provider's Interconnection Facilities may be shared by more than one Generating Facility in a given Cluster Study.

**Transmission System** shall mean the facilities owned, controlled or operated by the Transmission Provider or Transmission Owner that are used to provide transmission service under the Tariff.

**Trial Operation** shall mean the period during which Interconnection Customer is engaged in on-site test operations and commissioning of the Generating Facility prior to Commercial Operation.

**Variable Energy Resource** shall mean a device for the production of electricity that is characterized by an energy source that: (1) is renewable; (2) cannot be stored by the facility owner or operator; and (3) has variability that is beyond the control of the facility owner or operator.

**Withdrawal Penalty** shall have the meaning set forth in Section 3.7.1 of the Revised LGIP.

## **Article 2. Effective Date, Term, and Termination**

### **2.1 Effective Date.**

This LGIA shall become effective upon execution by the Parties subject to acceptance by FERC (if applicable), or if filed unexecuted, upon the date specified by FERC. Transmission Provider shall promptly file this LGIA with FERC upon execution in accordance with Article 3.1, if required.

### **2.2 Term of Agreement.**

Subject to the provisions of Article 2.3, this LGIA shall remain in effect for a period of ten (10) years from the Effective Date or such other longer period as Interconnection Customer may request (Term to be specified in individual agreements) and shall be automatically renewed for each successive one-year period thereafter.

### **2.3 Termination Procedures.**

#### **2.3.1 Written Notice.**

This LGIA may be terminated by Interconnection Customer after giving Transmission Provider ninety (90) Calendar Days advance written notice, or by Transmission Provider notifying FERC after the Generating Facility permanently ceases Commercial Operation. This LGIA shall be terminated by Transmission Provider if the Generating Facility or a portion of the Generating Facility fails to achieve Commercial Operation by the Commercial Operation Date established in accordance with Section 4.4.5 of the Revised LGIP, including any extension provided thereunder, or, having previously achieved Commercial Operation, has ceased Commercial Operation for three (3) consecutive years, beginning with the last date of Commercial Operation for the Generating Facility, after giving Interconnection Customer ninety (90) Calendar Days advance written notice. When only a portion of the Generating Facility fails to achieve Commercial Operation by the Commercial Operation

Proposed Effective Date: 12-5-2019

Approved Effective Date:

Date established in accordance with Section 4.4.5 of the Revised LGIP, including any extension provided thereunder, Transmission Provider shall terminate only that portion of the LGIA. Notwithstanding the foregoing, in the limited circumstance that the Interconnection Request is served by a Contingent Facility with an in-service date that is later than the Commercial Operation Date permitted under Section 4.4.5 of the Revised LGIP, Transmission Provider shall terminate this LGIA only for failure to achieve Commercial Operation by ninety (90) Calendar Days after that later in-service date of the Contingent Facility. The Generating Facility will not be deemed to have ceased Commercial Operation for purposes of this Article 2.3.1 if Interconnection Customer can document that it has taken other significant steps to maintain or restore operational readiness of the Generating Facility for the purpose of returning the Generating Facility to Commercial Operation as soon as possible.

**2.3.2 Default.**

Either Party may terminate this LGIA in accordance with Article 17.

**2.3.3** Notwithstanding Articles 2.3.1 and 2.3.2, no termination shall become effective until the Parties have complied with all Applicable Laws and Regulations applicable to such termination, including the filing with FERC of a notice of termination of this LGIA, which notice has been accepted for filing by FERC.

**2.4 Termination Costs.**

If a Party elects to terminate this Agreement pursuant to Article 2.3 above, each Party shall pay all costs incurred (including any cancellation costs relating to orders or contracts for Interconnection Facilities and equipment) or charges assessed by the other Party, as of the date of the other Party's receipt of such notice of termination, that are the responsibility of the Terminating Party under this LGIA. In the event of termination by a Party, the Parties shall use commercially Reasonable Efforts to mitigate the costs, damages and charges arising as a consequence of termination. Upon termination of this LGIA, unless otherwise ordered or approved by FERC:

**2.4.1** With respect to any portion of Transmission Provider's Interconnection Facilities that have not yet been constructed or installed, Transmission Provider shall to the extent possible and with Interconnection Customer's authorization cancel any pending orders of, or return, any materials or equipment for, or contracts for construction of, such facilities; provided that in the event Interconnection Customer elects not to authorize such cancellation, Interconnection Customer shall assume all payment obligations with respect to such materials, equipment, and contracts, and Transmission Provider shall deliver such material and equipment, and, if necessary, assign such contracts, to Interconnection Customer as soon as practicable, at Interconnection Customer's expense. To the extent that Interconnection Customer has already paid Transmission Provider for any or all such costs of materials or equipment not taken by Interconnection Customer, Transmission Provider shall promptly refund such amounts to Interconnection Customer,



Proposed Effective Date: 12-5-2019

less any costs, including penalties incurred by Transmission Provider to cancel any pending orders of or return such materials, equipment, or contracts.

If an Interconnection Customer terminates this LGIA, it shall be responsible for all costs incurred in association with that Interconnection Customer's interconnection, including any cancellation costs relating to orders or contracts for Interconnection Facilities and equipment, and other expenses including any Network Upgrades for which Transmission Provider has incurred expenses and has not been reimbursed by Interconnection Customer.

**2.4.2** Transmission Provider may, at its option, retain any portion of such materials, equipment, or facilities that Interconnection Customer chooses not to accept delivery of, in which case Transmission Provider shall be responsible for all costs associated with procuring such materials, equipment, or facilities.

**2.4.3** With respect to any portion of the Interconnection Facilities, and any other facilities already installed or constructed pursuant to the terms of this LGIA, Interconnection Customer shall be responsible for all costs associated with the removal, relocation or other disposition or retirement of such materials, equipment, or facilities.

**2.4.4** Transmission Provider shall refund the security provided under Section 10.3 of the Revised LGIP, including any accumulated interest, if applicable. Notwithstanding the foregoing, prior to remitting such security, plus accumulated interest, Transmission Provider shall offset against such security, and accumulated interest, any unpaid costs or penalties arising out of this Agreement or the Revised LGIP. Monies due the Interconnection Customer shall be remitted within 90 days of termination.

**2.5 Disconnection.**

Upon termination of this LGIA, the Parties will take all appropriate steps to disconnect the Large Generating Facility from the Transmission System. All costs required to effectuate such disconnection shall be borne by the terminating Party, unless such termination resulted from the non-terminating Party's Default of this LGIA or such non-terminating Party otherwise is responsible for these costs under this LGIA.

**2.6 Survival.**

This LGIA shall continue in effect after termination to the extent necessary to provide for final billings and payments and for costs incurred hereunder, including billings and payments pursuant to this LGIA; to permit the determination and enforcement of liability and indemnification obligations arising from acts or events that occurred while this LGIA was in effect; and to permit each Party to have access to the lands of the other Party pursuant to this LGIA or other applicable agreements, to disconnect, remove or salvage its own facilities and equipment

**Article 3. Regulatory Filings**

### **3.1 Filing.**

Transmission Provider shall file this LGIA (and any amendment hereto) with the appropriate Governmental Authority, if required. Interconnection Customer may request that any information so provided be subject to the confidentiality provisions of Article 22. If Interconnection Customer has executed this LGIA, or any amendment thereto, Interconnection Customer shall reasonably cooperate with Transmission Provider with respect to such filing and to provide any information reasonably requested by Transmission Provider needed to comply with applicable regulatory requirements.

## **Article 4. Scope of Service**

### **4.1 Interconnection Product Options.**

Interconnection Customer has selected the following (checked) type of Interconnection Service:

#### **4.1.1 Energy Resource Interconnection Service.**

##### **4.1.1.1 The Product.**

Energy Resource Interconnection Service allows Interconnection Customer to connect the Large Generating Facility to the Transmission System and be eligible to deliver the Large Generating Facility's output using the existing firm or non-firm capacity of the Transmission System on an "as available" basis. To the extent Interconnection Customer wants to receive Energy Resource Interconnection Service, Transmission Provider shall construct facilities identified in Attachment A.

##### **4.1.1.2 Transmission Delivery Service Implications.**

Under Energy Resource Interconnection Service, Interconnection Customer will be eligible to inject power from the Large Generating Facility into and deliver power across the interconnecting Transmission Provider's Transmission System on an "as available" basis up to the amount of MWs identified in the applicable stability and steady state studies to the extent the upgrades initially required to qualify for Energy Resource Interconnection Service have been constructed. Where eligible to do so (e.g., PJM, ISO-NE, NYISO), Interconnection Customer may place a bid to sell into the market up to the maximum identified Large Generating Facility output, subject to any conditions specified in the interconnection service approval, and the Large Generating Facility will be dispatched to the extent Interconnection Customer's bid clears. In all other instances, no transmission delivery service from the Large Generating Facility is assured, but Interconnection Customer may obtain Point-to-Point Transmission Service, Network Integration Transmission Service, or be used for secondary network transmission service, pursuant to Transmission Provider's Tariff, up to the maximum output

identified in the stability and steady state studies. In those instances, in order for Interconnection Customer to obtain the right to deliver or inject energy beyond the Large Generating Facility Point of Interconnection or to improve its ability to do so, transmission delivery service must be obtained pursuant to the provisions of Transmission Provider's Tariff. The Interconnection Customer's ability to inject its Large Generating Facility output beyond the Point of Interconnection, therefore, will depend on the existing capacity of Transmission Provider's Transmission System at such time as a transmission service request is made that would accommodate such delivery. The provision of firm Point-to-Point Transmission Service or Network Integration Transmission Service may require the construction of additional Network Upgrades.

#### **4.1.2 Network Resource Interconnection Service.**

##### **4.1.2.1 The Product.**

Transmission Provider must conduct the necessary studies and construct the Network Upgrades needed to integrate the Large Generating Facility (1) in a manner comparable to that in which Transmission Provider integrates its generating facilities to serve native load customers; or (2) in an ISO or RTO with market based congestion management, in the same manner as all Network Resources. To the extent Interconnection Customer wants to receive Network Resource Interconnection Service, Transmission Provider shall construct the facilities identified in Attachment A to this LGIA.

##### **4.1.2.2 Transmission Delivery Service Implications.**

Network Resource Interconnection Service allows Interconnection Customer's Large Generating Facility to be designated by any Network Customer under the Tariff on Transmission Provider's Transmission System as a Network Resource, up to the Large Generating Facility's full output, on the same basis as existing Network Resources interconnected to Transmission Provider's Transmission System, and to be studied as a Network Resource on the assumption that such a designation will occur. Although Network Resource Interconnection Service does not convey a reservation of transmission service, any Network Customer under the Tariff can utilize its network service under the Tariff to obtain delivery of energy from the interconnected Interconnection Customer's Large Generating Facility in the same manner as it accesses Network Resources. A Large Generating Facility receiving Network Resource Interconnection Service may also be used to provide Ancillary Services after technical studies and/or periodic analyses are performed with respect to the Large Generating Facility's ability to provide any applicable Ancillary

Services, provided that such studies and analyses have been or would be required in connection with the provision of such Ancillary Services by any existing Network Resource. However, if an Interconnection Customer's Large Generating Facility has not been designated as a Network Resource by any load, it cannot be required to provide Ancillary Services except to the extent such requirements extend to all generating facilities that are similarly situated. The provision of Network Integration Transmission Service or firm Point-to-Point Transmission Service may require additional studies and the construction of additional upgrades. Because such studies and upgrades would be associated with a request for delivery service under the Tariff, cost responsibility for the studies and upgrades would be in accordance with FERC's policy for pricing transmission delivery services.

Network Resource Interconnection Service does not necessarily provide Interconnection Customer with the capability to physically deliver the output of its Large Generating Facility to any particular load on Transmission Provider's Transmission System without incurring congestion costs. In the event of transmission constraints on Transmission Provider's Transmission System, Interconnection Customer's Large Generating Facility shall be subject to the applicable congestion management procedures in Transmission Provider's Transmission System in the same manner as Network Resources.

There is no requirement either at the time of study or interconnection, or at any point in the future, that Interconnection Customer's Large Generating Facility be designated as a Network Resource by a Network Service Customer under the Tariff or that Interconnection Customer identify a specific buyer (or sink). To the extent a Network Customer does designate the Large Generating Facility as a Network Resource, it must do so pursuant to Transmission Provider's Tariff.

Once an Interconnection Customer satisfies the requirements for obtaining Network Resource Interconnection Service, any future transmission service request for delivery from the Large Generating Facility within Transmission Provider's Transmission System of any amount of capacity and/or energy, up to the amount initially studied, will not require that any additional studies be performed or that any further upgrades associated with such Large Generating Facility be undertaken, regardless of whether or not such Large Generating Facility is ever designated by a Network Customer as a Network Resource and regardless of changes in ownership of the Large Generating Facility. However, the reduction or elimination of congestion or redispatch costs may

Proposed Effective Date: 12-5-2019

require additional studies and the construction of additional upgrades.

To the extent Interconnection Customer enters into an arrangement for long term transmission service for deliveries from the Large Generating Facility outside Transmission Provider's Transmission System, such request may require additional studies and upgrades in order for Transmission Provider to grant such request.

**4.2 Provision of Service.**

Transmission Provider shall provide Interconnection Service for the Large Generating Facility at the Point of Interconnection.

**4.3 Performance Standards.**

Each Party shall perform all of its obligations under this LGIA in accordance with Applicable Laws and Regulations, Applicable Reliability Standards, and Good Utility Practice, and to the extent a Party is required or prevented or limited in taking any action by such regulations and standards, such Party shall not be deemed to be in Breach of this LGIA for its compliance therewith. If such Party is a Transmission Provider or Transmission Owner, then that Party shall amend the LGIA and submit the amendment to FERC for approval.

**4.4 No Transmission Delivery Service.**

The execution of this LGIA does not constitute a request for, nor the provision of, any transmission delivery service under Transmission Provider's Tariff, and does not convey any right to deliver electricity to any specific customer or Point of Delivery.

**4.5 Interconnection Customer Provided Services.**

The services provided by Interconnection Customer under this LGIA are set forth in Article 9.6 and Article 13.5.1. Interconnection Customer shall be paid for such services in accordance with Article 11.6.

**Article 5. Interconnection Facilities Engineering, Procurement, and Construction**

**5.1 Options.**

Unless otherwise mutually agreed to between the Parties, Interconnection Customer shall select the In-Service Date, Initial Synchronization Date, and Commercial Operation Date; and either the Standard Option or Alternate Option set forth below for completion of Transmission Provider's Interconnection Facilities and Network Upgrades as set forth in Appendix A, Interconnection Facilities and Network Upgrades, and such dates and selected option shall be set forth in Appendix B, Milestones. At the same time, Interconnection Customer shall indicate whether it elects to exercise the Option to Build set forth in Article 5.1.3 below. If the dates designated by Interconnection Customer are not acceptable to Transmission Provider, Transmission Provider shall so notify Interconnection Customer within thirty (30) Calendar Days. Upon receipt of the notification that Interconnection Customer's designated dates are not acceptable to Transmission Provider, the Interconnection Customer shall notify Transmission Provider

within thirty (30) Calendar Days whether it elects to exercise the Option to Build if it has not already elected to exercise the Option to Build.

**5.1.1 Standard Option.**

Transmission Provider shall design, procure, and construct Transmission Provider's Interconnection Facilities and Network Upgrades, using Reasonable Efforts to complete Transmission Provider's Interconnection Facilities and Network Upgrades by the dates set forth in Appendix B, LGIA Milestones. Transmission Provider shall not be required to undertake any action which is inconsistent with its standard safety practices, its material and equipment specifications, its design criteria and construction procedures, its labor agreements, and Applicable Laws and Regulations. In the event Transmission Provider reasonably expects that it will not be able to complete Transmission Provider's Interconnection Facilities and Network Upgrades by the specified dates, Transmission Provider shall promptly provide written notice to Interconnection Customer and shall undertake Reasonable Efforts to meet the earliest dates thereafter.

**5.1.2 Alternate Option.**

If the dates designated by Interconnection Customer are acceptable to Transmission Provider, Transmission Provider shall so notify Interconnection Customer within thirty (30) Calendar Days, and shall assume responsibility for the design, procurement and construction of Transmission Provider's Interconnection Facilities by the designated dates.

If Transmission Provider subsequently fails to complete Transmission Provider's Interconnection Facilities by the In-Service Date, to the extent necessary to provide back feed power; or fails to complete Network Upgrades by the Initial Synchronization Date to the extent necessary to allow for Trial Operation at full power output, unless other arrangements are made by the Parties for such Trial Operation; or fails to complete the Network Upgrades by the Commercial Operation Date, as such dates are reflected in Appendix B, LGIA Milestones; Transmission Provider shall pay Interconnection Customer liquidated damages in accordance with Article 5.3, Liquidated Damages, provided, however, the dates designated by Interconnection Customer shall be extended day for day for each day that the applicable RTO or ISO refuses to grant clearances to install equipment.

**5.1.3 Option to Build.**

Interconnection Customer shall have the option to assume responsibility for the design, procurement and construction of Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades on the dates specified in Article 5.1.2. Transmission Provider and Interconnection Customer must agree as to what constitutes Stand Alone Network Upgrades and identify such Stand Alone Network Upgrades in Appendix A. Except for Stand Alone Network Upgrades, Interconnection Customer shall have no right to construct Network Upgrades under this option.

**5.1.4 Negotiated Option.**

If the dates designated by Interconnection Customer are not acceptable to Transmission Provider, the Parties shall in good faith attempt to negotiate terms and conditions (including revision of the specified dates and liquidated damages, the provision of incentives, or the procurement and construction of all facilities other than Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades if the Interconnection Customer elects to exercise the Option to Build under Article 5.1.3) If the Parties are unable to reach agreement on such terms and conditions, then, pursuant to Article 5.1.1 (Standard Option), Transmission Provider shall assume responsibility for the design, procurement and construction of all facilities other than Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades if the Interconnection Customer elects to exercise the Option to Build.

**5.2 General Conditions Applicable to Option to Build.**

If Interconnection Customer assumes responsibility for the design, procurement and construction of Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades,

- (1) Interconnection Customer shall engineer, procure equipment, and construct Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades (or portions thereof) using Good Utility Practice and using standards and specifications provided in advance by Transmission Provider;
- (2) Interconnection Customer's engineering, procurement and construction of Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades shall comply with all requirements of law to which Transmission Provider would be subject in the engineering, procurement or construction of Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades;
- (3) Transmission Provider shall review and approve the engineering design, equipment acceptance tests, and the construction of Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades;
- (4) Prior to commencement of construction, Interconnection Customer shall provide to Transmission Provider a schedule for construction of Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades, and shall promptly respond to requests for information from Transmission Provider;
- (5) At any time during construction, Transmission Provider shall have the right to gain unrestricted access to Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades and to conduct inspections of the same;

Proposed Effective Date: 12-5-2019

Approved Effective Date:

- (6) At any time during construction, should any phase of the engineering, equipment procurement, or construction of Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades not meet the standards and specifications provided by Transmission Provider, Interconnection Customer shall be obligated to remedy deficiencies in that portion of Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades;
- (7) Interconnection Customer shall indemnify Transmission Provider for claims arising from Interconnection Customer's construction of Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades under the terms and procedures applicable to Article 18.1 Indemnity;
- (8) Interconnection Customer shall transfer control of Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades to Transmission Provider;
- (9) Unless Parties otherwise agree, Interconnection Customer shall transfer ownership of Transmission Provider's Interconnection Facilities and Stand-Alone Network Upgrades to Transmission Provider;
- (10) Transmission Provider shall approve and accept for operation and maintenance Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades to the extent engineered, procured, and constructed in accordance with this Article 5.2; and
- (11) Interconnection Customer shall deliver to Transmission Provider "as-built" drawings, information, and any other documents that are reasonably required by Transmission Provider to assure that the Interconnection Facilities and Stand-Alone Network Upgrades are built to the standards and specifications required by Transmission Provider.
- (12) If Interconnection Customer exercises the Option to Build pursuant to Article 5.1.3, Interconnection Customer shall pay Transmission Provider the agreed upon amount of [\$ PLACEHOLDER] for Transmission Provider to execute the responsibilities enumerated to Transmission Provider under Article 5.2. Transmission Provider shall invoice Interconnection Customer for this total amount to be divided on a monthly basis pursuant to Article 12.

### **5.3 Liquidated Damages.**

The actual damages to Interconnection Customer, in the event Transmission Provider's Interconnection Facilities or Network Upgrades are not completed by the dates designated by Interconnection Customer and accepted by Transmission Provider



pursuant to subparagraphs 5.1.2 or 5.1.4, above, may include Interconnection Customer's fixed operation and maintenance costs and lost opportunity costs. Such actual damages are uncertain and impossible to determine at this time. Because of such uncertainty, any liquidated damages paid by Transmission Provider to Interconnection Customer in the event that Transmission Provider does not complete any portion of Transmission Provider's Interconnection Facilities or Network Upgrades by the applicable dates, shall be an amount equal to  $\frac{1}{2}$  of 1 percent per day of the actual cost of Transmission Provider's Interconnection Facilities and Network Upgrades, in the aggregate, for which Transmission Provider has assumed responsibility to design, procure and construct.

However, in no event shall the total liquidated damages exceed 20 percent of the actual cost of Transmission Provider's Interconnection Facilities and Network Upgrades for which Transmission Provider has assumed responsibility to design, procure, and construct. The foregoing payments will be made by Transmission Provider to Interconnection Customer as just compensation for the damages caused to Interconnection Customer, which actual damages are uncertain and impossible to determine at this time, and as reasonable liquidated damages, but not as a penalty or a method to secure performance of this LGIA. Liquidated damages, when the Parties agree to them, are the exclusive remedy for the Transmission Provider's failure to meet its schedule.

No liquidated damages shall be paid to Interconnection Customer if: (1) Interconnection Customer is not ready to commence use of Transmission Provider's Interconnection Facilities or Network Upgrades to take the delivery of power for the Large Generating Facility's Trial Operation or to export power from the Large Generating Facility on the specified dates, unless Interconnection Customer would have been able to commence use of Transmission Provider's Interconnection Facilities or Network Upgrades to take the delivery of power for Large Generating Facility's Trial Operation or to export power from the Large Generating Facility, but for Transmission Provider's delay; (2) Transmission Provider's failure to meet the specified dates is the result of the action or inaction of Interconnection Customer or any other Interconnection Customer who has entered into an LGIA with Transmission Provider or any cause beyond Transmission Provider's reasonable control or reasonable ability to cure; (3) the Interconnection Customer has assumed responsibility for the design, procurement and construction of Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades; or (4) the Parties have otherwise agreed.

#### **5.4 Power System Stabilizers.**

The Interconnection Customer shall procure, install, maintain and operate Power System Stabilizers in accordance with the guidelines and procedures established by the Applicable Reliability Council. Transmission Provider reserves the right to reasonably establish minimum acceptable settings for any installed Power System Stabilizers, subject to the design and operating limitations of the Large Generating Facility. If the Large Generating Facility's Power System Stabilizers are removed from service or not capable of automatic operation, Interconnection Customer shall immediately notify Transmission Provider's system operator, or its designated representative. The requirements of this paragraph shall not apply to wind generators.

Proposed Effective Date: 12-5-2019

## **5.5 Equipment Procurement.**

If responsibility for construction of Transmission Provider's Interconnection Facilities or Network Upgrades is to be borne by Transmission Provider, then Transmission Provider shall commence design of Transmission Provider's Interconnection Facilities or Network Upgrades and procure necessary equipment as soon as practicable after all of the following conditions are satisfied, unless the Parties otherwise agree in writing:

- 5.5.1** Transmission Provider has completed the Interconnection Facilities Study pursuant to the Interconnection Facilities Study Agreement;
- 5.5.2** Transmission Provider has received written authorization to proceed with design and procurement from Interconnection Customer by the date specified in Appendix B, LGIA Milestones; and
- 5.5.3** Interconnection Customer has provided security to Transmission Provider in accordance with Article 11.5 by the dates specified in Appendix B, LGIA Milestones.

## **5.6 Construction Commencement.**

Transmission Provider shall commence construction of Transmission Provider's Interconnection Facilities and Network Upgrades for which it is responsible as soon as practicable after the following additional conditions are satisfied:

- 5.6.1** Approval of the appropriate Governmental Authority has been obtained for any facilities requiring regulatory approval;
- 5.6.2** Necessary real property rights and rights-of-way have been obtained, to the extent required for the construction of a discrete aspect of Transmission Provider's Interconnection Facilities and Network Upgrades;
- 5.6.3** Transmission Provider has received written authorization to proceed with construction from Interconnection Customer by the date specified in Appendix B, LGIA Milestones; and
- 5.6.4** Interconnection Customer has provided security to Transmission Provider in accordance with Article 11.5 by the dates specified in Appendix B, LGIA Milestones.

## **5.7 Work Progress.**

The Parties will keep each other advised periodically as to the progress of their respective design, procurement and construction efforts. Either Party may, at any time, request a progress report from the other Party. If, at any time, Interconnection Customer determines that the completion of Transmission Provider's Interconnection Facilities will not be required until after the specified In-Service Date, Interconnection Customer will provide written notice to Transmission Provider of such later date upon which the completion of Transmission Provider's Interconnection Facilities will be required.

Proposed Effective Date: 12-5-2019

Approved Effective Date:

## **5.8 Information Exchange.**

As soon as reasonably practicable after the Effective Date, the Parties shall exchange information regarding the design and compatibility of the Parties' Interconnection Facilities and compatibility of the Interconnection Facilities with Transmission Provider's Transmission System, and shall work diligently and in good faith to make any necessary design changes.

## **5.9 Other Interconnection Options**

### **5.9.1 Limited Operation.**

If any of Transmission Provider's Interconnection Facilities or Network Upgrades are not reasonably expected to be completed prior to the Commercial Operation Date of the Large Generating Facility, Transmission Provider shall, upon the request and at the expense of Interconnection Customer, perform operating studies on a timely basis to determine the extent to which the Large Generating Facility and Interconnection Customer's Interconnection Facilities may operate prior to the completion of Transmission Provider's Interconnection Facilities or Network Upgrades consistent with Applicable Laws and Regulations, Applicable Reliability Standards, Good Utility Practice, and this LGIA. Transmission Provider shall permit Interconnection Customer to operate the Large Generating Facility and Interconnection Customer's Interconnection Facilities in accordance with the results of such studies.

### **5.9.2 Provisional Interconnection Service.**

Upon the request of Interconnection Customer, and prior to completion of requisite Interconnection Facilities, Network Upgrades, Distribution Upgrades, or System Protection Facilities Transmission Provider may execute a Provisional Large Generator Interconnection Agreement or Interconnection Customer may request the filing of an unexecuted Provisional Large Generator Interconnection Agreement with the Interconnection Customer for limited Interconnection Service at the discretion of Transmission Provider based upon an evaluation that will consider the results of available studies. Transmission Provider shall determine, through available studies or additional studies as necessary, whether stability, short circuit, thermal, and/or voltage issues would arise if Interconnection Customer interconnects without modifications to the Generating Facility or Transmission System. Transmission Provider shall determine whether any Interconnection Facilities, Network Upgrades, Distribution Upgrades, or System Protection Facilities that are necessary to meet the requirements of NERC, or any applicable Regional Entity for the interconnection of a new, modified and/or expanded Generating Facility are in place prior to the commencement of Interconnection Service from the Generating Facility. Where available studies indicate that such, Interconnection Facilities, Network Upgrades, Distribution Upgrades, and/or System Protection Facilities that are required for the interconnection of a new, modified and/or expanded Generating Facility are not currently in place, Transmission Provider will perform a study, at the Interconnection Customer's expense, to confirm the facilities that are

Proposed Effective Date: 12-5-2019

required for Provisional Interconnection Service. The maximum permissible output of the Generating Facility in the Provisional Large Generator Interconnection Agreement shall be reviewed quarterly and updated if there are changes to system conditions compared to the system conditions previously used to determine of the maximum permissible output. Any necessary study is conducted at the Interconnection Customer's expense. Interconnection Customer assumes all risk and liabilities with respect to changes between the Provisional Large Generator Interconnection Agreement and the Large Generator Interconnection Agreement, including changes in output limits and Interconnection Facilities, Network Upgrades, Distribution Upgrades, and/or System Protection Facilities cost responsibilities.

**5.10 Interconnection Customer's Interconnection Facilities ("ICIF").**

Interconnection Customer shall, at its expense, design, procure, construct, own and install the ICIF, as set forth in Appendix A, Interconnection Facilities, Network Upgrades and Distribution Upgrades.

**5.10.1 Interconnection Customer's Interconnection Facility Specifications.**

Interconnection Customer shall submit initial specifications for the ICIF, including System Protection Facilities, to Transmission Provider at least one-hundred eighty (180) Calendar Days prior to the Initial Synchronization Date; and final specifications for review and comment at least ninety (90) Calendar Days prior to the Initial Synchronization Date. Transmission Provider shall review such specifications to ensure that the ICIF are compatible with the technical specifications, operational control, and safety requirements of Transmission Provider and comment on such specifications within thirty (30) Calendar Days of Interconnection Customer's submission. All specifications provided hereunder shall be deemed confidential.

**5.10.2 Transmission Provider's Review.**

Transmission Provider's review of Interconnection Customer's final specifications shall not be construed as confirming, endorsing, or providing a warranty as to the design, fitness, safety, durability or reliability of the Large Generating Facility, or the ICIF. Interconnection Customer shall make such changes to the ICIF as may reasonably be required by Transmission Provider, in accordance with Good Utility Practice, to ensure that the ICIF are compatible with the technical specifications, operational control, and safety requirements of Transmission Provider.

**5.10.3 ICIF Construction.**

The ICIF shall be designed and constructed in accordance with Good Utility Practice. Within one-hundred twenty (120) Calendar Days after the Commercial Operation Date, unless the Parties agree on another mutually acceptable deadline, Interconnection Customer shall deliver to Transmission Provider "as-built" drawings, information and documents for the ICIF, such as: a one-line diagram, a site plan showing the Large Generating Facility and the ICIF, plan and elevation drawings showing the layout of the ICIF, a relay

functional diagram, relaying AC and DC schematic wiring diagrams and relay settings for all facilities associated with Interconnection Customer's step-up transformers, the facilities connecting the Large Generating Facility to the step-up transformers and the ICIF, and the impedances (determined by factory tests) for the associated step-up transformers and the Large Generating Facility. The Interconnection Customer shall provide Transmission Provider specifications for the excitation system, automatic voltage regulator, Large Generating Facility control and protection settings, transformer tap settings, and communications, if applicable.

**5.11 Transmission Provider's Interconnection Facilities Construction.**

Transmission Provider's Interconnection Facilities shall be designed and constructed in accordance with Good Utility Practice. Upon request, within one-hundred twenty (120) Calendar Days after the Commercial Operation Date, unless the Parties agree on another mutually acceptable deadline, Transmission Provider shall deliver to Interconnection Customer the following "as-built" drawings, information and documents for Transmission Provider's Interconnection Facilities [include appropriate drawings and relay diagrams]. Transmission Provider will obtain control of Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades upon completion of such facilities.

**5.12 Access Rights.**

Upon reasonable notice and supervision by a Party, and subject to any required or necessary regulatory approvals, a Party ("Granting Party") shall furnish at no cost to the other Party ("Access Party") any rights of use, licenses, rights of way and easements with respect to lands owned or controlled by the Granting Party, its agents (if allowed under the applicable agency agreement), or any Affiliate, that are necessary to enable the Access Party to obtain ingress and egress to construct, operate, maintain, repair, test (or witness testing), inspect, replace or remove facilities and equipment to: (i) interconnect the Large Generating Facility with the Transmission System; (ii) operate and maintain the Large Generating Facility, the Interconnection Facilities and the Transmission System; and (iii) disconnect or remove the Access Party's facilities and equipment upon termination of this LGIA. In exercising such licenses, rights of way and easements, the Access Party shall not unreasonably disrupt or interfere with normal operation of the Granting Party's business and shall adhere to the safety rules and procedures established in advance, as may be changed from time to time, by the Granting Party and provided to the Access Party.

**5.13 Lands of Other Property Owners.**

If any part of Transmission Provider or Transmission Owner's Interconnection Facilities and/or Network Upgrades is to be installed on property owned by persons other than Interconnection Customer or Transmission Provider or Transmission Owner, Transmission Provider or Transmission Owner shall at Interconnection Customer's expense use efforts, similar in nature and extent to those that it typically undertakes on its own behalf or on behalf of its Affiliates, including use of its eminent domain authority, and to the extent consistent with state law, to procure from such persons any rights of use, licenses, rights of way and easements that are necessary to construct, operate,

Proposed Effective Date: 12-5-2019

maintain, test, inspect, replace or remove Transmission Provider or Transmission Owner's Interconnection Facilities and/or Network Upgrades upon such property.

**5.14 Permits.**

Transmission Provider or Transmission Owner and Interconnection Customer shall cooperate with each other in good faith in obtaining all permits, licenses, and authorizations that are necessary to accomplish the interconnection in compliance with Applicable Laws and Regulations. With respect to this paragraph, Transmission Provider or Transmission Owner shall provide permitting assistance to Interconnection Customer comparable to that provided to Transmission Provider's own, or an Affiliate's generation.

**5.15 Early Construction of Base Case Facilities.**

Interconnection Customer may request Transmission Provider to construct, and Transmission Provider shall construct, using Reasonable Efforts to accommodate Interconnection Customer's In-Service Date, all or any portion of any Network Upgrades required for Interconnection Customer to be interconnected to the Transmission System which are included in the Base Case of the Facilities Study for Interconnection Customer, and which also are required to be constructed for another Interconnection Customer, but where such construction is not scheduled to be completed in time to achieve Interconnection Customer's In-Service Date.

**5.16 Suspension.**

Interconnection Customer reserves the right, upon written notice to Transmission Provider, to suspend at any time all work by Transmission Provider associated with the construction and installation of Transmission Provider's Interconnection Facilities and/or Network Upgrades required under this LGIA with the condition that Transmission System shall be left in a safe and reliable condition in accordance with Good Utility Practice and Transmission Provider's safety and reliability criteria. In such event, Interconnection Customer shall be responsible for all reasonable and necessary costs which Transmission Provider (i) has incurred pursuant to this LGIA prior to the suspension and (ii) incurs in suspending such work, including any costs incurred to perform such work as may be necessary to ensure the safety of persons and property and the integrity of the Transmission System during such suspension and, if applicable, any costs incurred in connection with the cancellation or suspension of material, equipment and labor contracts which Transmission Provider cannot reasonably avoid; provided, however, that prior to canceling or suspending any such material, equipment or labor contract, Transmission Provider shall obtain Interconnection Customer's authorization to do so.

Transmission Provider shall invoice Interconnection Customer for such costs pursuant to Article 12 and shall use due diligence to minimize its costs. In the event Interconnection Customer suspends work by Transmission Provider required under this LGIA pursuant to this Article 5.16, and has not requested Transmission Provider to recommence the work required under this LGIA on or before the expiration of three (3) years following commencement of such suspension, this LGIA shall be deemed terminated. The three-year period shall begin on the date the suspension is requested, or the date of the written notice to Transmission Provider, if no effective date is specified.

**5.16.1 Effect of Missed Interconnection Customer LGIA Milestones.**

Proposed Effective Date: 12-5-2019

If Interconnection Customer fails to provide notice of suspension pursuant to Article 5.16, and Interconnection Customer fails to fulfill or complete any Interconnection Customer LGIA Milestone provided in Appendix B ("LGIA Milestone"), this constitutes a Breach under this LGIA. Depending upon the consequences of the Breach and effectiveness of the cure pursuant to Article 17, Transmission Provider's LGIA Milestones may be revised, following consultation with Interconnection Customer, consistent with Reasonable Efforts, and in consideration of all relevant circumstances. Parties shall employ Reasonable Efforts to maintain their remaining respective LGIA Milestones.

#### **5.16.2 Effect of Suspension; Parties Obligations.**

In the event that Interconnection Customer suspends work pursuant to this Article 5.16, the applicable construction duration, timelines and schedules set forth in Appendix B shall be suspended during the period of suspension. Should Interconnection Customer thereafter request that work be recommenced, Appendix A and Appendix B may be revised to account for construction sequencing and modified milestones. If the Commercial Operation Date is extended beyond three (3) cumulative years described in Section 4.4.5 of the Revised LGIP and Article 2.3.1 of this LGIA, such an extension may be considered a Material Modification and result in the termination of the LGIA under Article 2.3.1. Interconnection Customer is required to maintain Site Control while this LGIA is in effect, including during suspension.

### **5.17 Taxes**

#### **5.17.1 Interconnection Customer Payments Not Taxable.**

The Parties intend that all payments or property transfers made by Interconnection Customer to Transmission Provider for the installation of Transmission Provider's Interconnection Facilities and the Network Upgrades shall be non-taxable, either as contributions to capital, or as an advance, in accordance with the Internal Revenue Code and any applicable state income tax laws and shall not be taxable as contributions in aid of construction or otherwise under the Internal Revenue Code and any applicable state income tax laws.

#### **5.17.2 Representations and Covenants.**

In accordance with IRS Notice 2001-82 and IRS Notice 88-129, Interconnection Customer represents and covenants that (i) ownership of the electricity generated at the Large Generating Facility will pass to another party prior to the transmission of the electricity on the Transmission System, (ii) for income tax purposes, the amount of any payments and the cost of any property transferred to Transmission Provider for Transmission Provider's Interconnection Facilities will be capitalized by Interconnection Customer as an intangible asset and recovered using the straight-line method over a useful life of twenty (20) years, and (iii) any portion of Transmission Provider's Interconnection Facilities that is a "dual-use intertie," within the meaning of IRS Notice 88-129, is reasonably expected to carry only a de minimis amount of electricity in the direction of the Large Generating Facility. For this purpose, "de minimis amount" means no more

Proposed Effective Date: 12-5-2019

than percent of the total power flows in both directions, calculated in accordance with the "5 percent test" set forth in IRS Notice 88-129. This is not intended to be an exclusive list of the relevant conditions that must be met to conform to IRS requirements for non-taxable treatment.

At Transmission Provider's request, Interconnection Customer shall provide Transmission Provider with a report from an independent engineer confirming its representation in clause (iii), above. Transmission Provider represents and covenants that the cost of Transmission Provider's Interconnection Facilities paid for by Interconnection Customer will have no net effect on the base upon which rates are determined.

**5.17.3 Indemnification for the Cost Consequences of Current Tax Liability Imposed Upon the Transmission Provider.**

Notwithstanding Article 5.17.1, Interconnection Customer shall protect, indemnify and hold harmless Transmission Provider from the cost consequences of any current tax liability imposed against Transmission Provider as the result of payments or property transfers made by Interconnection Customer to Transmission Provider under this LGIA for Interconnection Facilities, as well as any interest and penalties, other than interest and penalties attributable to any delay caused by Transmission Provider.

Transmission Provider shall not include a gross-up for the cost consequences of any current tax liability in the amounts it charges Interconnection Customer under this LGIA unless (i) Transmission Provider has determined, in good faith, that the payments or property transfers made by Interconnection Customer to Transmission Provider should be reported as income subject to taxation or (ii) any Governmental Authority directs Transmission Provider to report payments or property as income subject to taxation; provided, however, that Transmission Provider may require Interconnection Customer to provide security for Interconnection Facilities, in a form reasonably acceptable to Transmission Provider (such as a parental guarantee or a letter of credit), in an amount equal to the cost consequences of any current tax liability under this Article 5.17. Interconnection Customer shall reimburse Transmission Provider for such costs on a fully grossed-up basis, in accordance with Article 5.17.4, within thirty (30) Calendar Days of receiving written notification from Transmission Provider of the amount due, including detail about how the amount was calculated.

The indemnification obligation shall terminate at the earlier of (1) the expiration of the ten-year testing period and the applicable statute of limitation, as it may be extended by Transmission Provider upon request of the IRS, to keep these years open for audit or adjustment, or (2) the occurrence of a subsequent taxable event and the payment of any related indemnification obligations as contemplated by this Article 5.17.

**5.17.4 Tax Gross-Up Amount.**

Interconnection Customer's liability for the cost consequences of any current tax liability under this Article 5.17 shall be calculated on a fully grossed-up basis.



Proposed Effective Date: 12-5-2019

Except as may otherwise be agreed to by the parties, this means that Interconnection Customer will pay Transmission Provider, in addition to the amount paid for the Interconnection Facilities and Network Upgrades, an amount equal to (1) the current taxes imposed on Transmission Provider ("Current Taxes") on the excess of (a) the gross income realized by Transmission Provider as a result of payments or property transfers made by Interconnection Customer to Transmission Provider under this LGIA (without regard to any payments under this Article 5.17) (the "Gross Income Amount") over (b) the present value of future tax deductions for depreciation that will be available as a result of such payments or property transfers (the "Present Value Depreciation Amount"), plus (2) an additional amount sufficient to permit Transmission Provider to receive and retain, after the payment of all Current Taxes, an amount equal to the net amount described in clause (1).

For this purpose, (i) Current Taxes shall be computed based on Transmission Provider's composite federal and state tax rates at the time the payments or property transfers are received and Transmission Provider will be treated as being subject to tax at the highest marginal rates in effect at that time (the "Current Tax Rate"), and (ii) the Present Value Depreciation Amount shall be computed by discounting Transmission Provider's anticipated tax depreciation deductions as a result of such payments or property transfers by Transmission Provider's current weighted average cost of capital. Thus, the formula for calculating Interconnection Customer's liability to Transmission Owner pursuant to this Article 5.17.4 can be expressed as follows:  $(\text{Current Tax Rate} \times (\text{Gross Income Amount} - \text{Present Value of Tax Depreciation})) / (1 - \text{Current Tax Rate})$ . Interconnection Customer's estimated tax liability in the event taxes are imposed shall be stated in Appendix A, Interconnection Facilities, Network Upgrades and Distribution Upgrades.

#### **5.17.5 Private Letter Ruling or Change or Clarification of Law.**

At Interconnection Customer's request and expense, Transmission Provider shall file with the IRS a request for a private letter ruling as to whether any property transferred or sums paid, or to be paid, by Interconnection Customer to Transmission Provider under this LGIA are subject to federal income taxation. Interconnection Customer will prepare the initial draft of the request for a private letter ruling, and will certify under penalties of perjury that all facts represented in such request are true and accurate to the best of Interconnection Customer's knowledge. Transmission Provider and Interconnection Customer shall cooperate in good faith with respect to the submission of such request. Transmission Provider shall keep Interconnection Customer fully informed of the status of such request for a private letter ruling and shall execute either a privacy act waiver or a limited power of attorney, in a form acceptable to the IRS that authorizes Interconnection Customer to participate in all discussions with the IRS regarding such request for a private letter ruling. Transmission Provider shall allow Interconnection Customer to attend all meetings with IRS officials about the request and shall permit Interconnection Customer to prepare the initial drafts of any follow-up letters in connection with the request.

#### **5.17.6 Subsequent Taxable Events.**

If, within ten (10) years from the date on which the relevant Transmission Provider's Interconnection Facilities are placed in service, (i) Interconnection Customer Breaches the covenants contained in Article 5.17.2, (ii) a "disqualification event" occurs within the meaning of IRS Notice 88-129, or (iii) this LGIA terminates and Transmission Provider retains ownership of the Interconnection Facilities and Network Upgrades, Interconnection Customer shall pay a tax gross-up for the cost consequences of any current tax liability imposed on Transmission Provider, calculated using the methodology described in Article 5.17.4 and in accordance with IRS Notice 90-60.

#### **5.17.7 Contests.**

In the event any Governmental Authority determines that Transmission Provider's receipt of payments or property constitutes income that is subject to taxation, Transmission Provider shall notify Interconnection Customer, in writing, within thirty (30) Calendar Days of receiving notification of such determination by a Governmental Authority. Upon the timely written request by Interconnection Customer and at Interconnection Customer's sole expense, Transmission Provider may appeal, protest, seek abatement of, or otherwise oppose such determination. Upon Interconnection Customer's written request and sole expense, Transmission Provider may file a claim for refund with respect to any taxes paid under this Article 5.17, whether or not it has received such a determination. Transmission Provider reserves the right to make all decisions with regard to the prosecution of such appeal, protest, abatement or other contest, including the selection of counsel and compromise or settlement of the claim, but Transmission Provider shall keep Interconnection Customer informed, shall consider in good faith suggestions from Interconnection Customer about the conduct of the contest, and shall reasonably permit Interconnection Customer or an Interconnection Customer representative to attend contest proceedings.

Interconnection Customer shall pay to Transmission Provider on a periodic basis, as invoiced by Transmission Provider, Transmission Provider's documented reasonable costs of prosecuting such appeal, protest, abatement or other contest. At any time during the contest, Transmission Provider may agree to a settlement either with Interconnection Customer's consent or after obtaining written advice from nationally-recognized tax counsel, selected by Transmission Provider, but reasonably acceptable to Interconnection Customer, that the proposed settlement represents a reasonable settlement given the hazards of litigation. Interconnection Customer's obligation shall be based on the amount of the settlement agreed to by Interconnection Customer, or if a higher amount, so much of the settlement that is supported by the written advice from nationally-recognized tax counsel selected under the terms of the preceding sentence. The settlement amount shall be calculated on a fully grossed-up basis to cover any related cost consequences of the current tax liability. Any settlement without Interconnection Customer's consent or such written advice will relieve Interconnection Customer from any obligation to indemnify Transmission Provider for the tax at issue in the contest.

#### **5.17.8 Refund.**

In the event that (a) a private letter ruling is issued to Transmission Provider which holds that any amount paid or the value of any property transferred by Interconnection Customer to Transmission Provider under the terms of this LGIA is not subject to federal income taxation, (b) any legislative change or administrative announcement, notice, ruling or other determination makes it reasonably clear to Transmission Provider in good faith that any amount paid or the value of any property transferred by Interconnection Customer to Transmission Provider under the terms of this LGIA is not taxable to Transmission Provider, (c) any abatement, appeal, protest, or other contest results in a determination that any payments or transfers made by Interconnection Customer to Transmission Provider are not subject to federal income tax, or (d) if Transmission Provider receives a refund from any taxing authority for any overpayment of tax attributable to any payment or property transfer made by Interconnection Customer to Transmission Provider pursuant to this LGIA, Transmission Provider shall promptly refund to Interconnection Customer the following:

- (i) any payment made by Interconnection Customer under this Article 5.17 for taxes that is attributable to the amount determined to be non-taxable, together with interest thereon,
- (ii) interest on any amount paid by Interconnection Customer to Transmission Provider for such taxes which Transmission Provider did not submit to the taxing authority, calculated in accordance with the methodology set forth in FERC's regulations at 18 CFR § 35.19a(a)(2)(iii) from the date payment was made by Interconnection Customer to the date Transmission Provider refunds such payment to Interconnection Customer, and
- (iii) with respect to any such taxes paid by Transmission Provider, any refund or credit Transmission Provider receives or to which it may be entitled from any Governmental Authority, interest (or that portion thereof attributable to the payment described in clause (i), above) owed to Transmission Provider for such overpayment of taxes (including any reduction in interest otherwise payable by Transmission Provider to any Governmental Authority resulting from an offset or credit); provided, however, that Transmission Provider will remit such amount promptly to Interconnection Customer only after and to the extent that Transmission Provider has received a tax refund, credit or offset from any Governmental Authority for any applicable overpayment of income tax related to Transmission Provider's Interconnection Facilities. The intent of this provision is to leave the Parties, to the extent practicable, in the event that no taxes are due with respect to any payment for Interconnection Facilities and Network Upgrades hereunder, in the same position they would have been in had no such tax payments been made.

#### **5.17.9 Taxes Other Than Income Taxes.**

Upon the timely request by Interconnection Customer, and at Interconnection Customer's sole expense, Transmission Provider may appeal, protest, seek abatement of, or otherwise contest any tax (other than federal or state income tax) asserted or assessed against Transmission Provider for which Interconnection Customer may be required to reimburse Transmission Provider under the terms of this LGIA. Interconnection Customer shall pay to Transmission Provider on a periodic basis, as invoiced by Transmission Provider, Transmission Provider's documented reasonable costs of prosecuting such appeal, protest, abatement, or other contest. Interconnection Customer and Transmission Provider shall cooperate in good faith with respect to any such contest. Unless the payment of such taxes is a prerequisite to an appeal or abatement or cannot be deferred, no amount shall be payable by Interconnection Customer to Transmission Provider for such taxes until they are assessed by a final, non-appealable order by any court or agency of competent jurisdiction. In the event that a tax payment is withheld and ultimately due and payable after appeal, Interconnection Customer will be responsible for all taxes, interest and penalties, other than penalties attributable to any delay caused by Transmission Provider.

#### **5.17.10 Transmission Owners Who Are Not Transmission Providers.**

If Transmission Provider is not the same entity as the Transmission Owner, then (i) all references in this Article 5.17 to Transmission Provider shall be deemed also to refer to and to include the Transmission Owner, as appropriate, and (ii) this LGIA shall not become effective until such Transmission Owner shall have agreed in writing to assume all of the duties and obligations of Transmission Provider under this Article 5.17 of this LGIA.

#### **5.18 Tax Status.**

Each Party shall cooperate with the other to maintain the other Party's tax status. Nothing in this LGIA is intended to adversely affect any Transmission Provider's tax exempt status with respect to the issuance of bonds including, but not limited to, Local Furnishing Bonds.

#### **5.19 Modification.**

##### **5.19.1 General.**

Either Party may undertake modifications to its facilities. If a Party plans to undertake a modification that reasonably may be expected to affect the other Party's facilities, that Party shall provide to the other Party sufficient information regarding such modification so that the other Party may evaluate the potential impact of such modification prior to commencement of the work. Such information shall be deemed to be confidential hereunder and shall include information concerning the timing of such modifications and whether such modifications are expected to interrupt the flow of electricity from the Large Generating Facility. The Party desiring to perform such work shall provide the relevant drawings, plans, and specifications to the other Party at least ninety (90) Calendar Days in advance of the commencement of the

work or such shorter period upon which the Parties may agree, which agreement shall not unreasonably be withheld, conditioned or delayed.

In the case of Large Generating Facility modifications that do not require Interconnection Customer to submit an Interconnection Request, Transmission Provider shall provide, within thirty (30) Calendar Days (or such other time as the Parties may agree), an estimate of any additional modifications to the Transmission System, Transmission Provider's Interconnection Facilities or Network Upgrades necessitated by such Interconnection Customer modification and a good faith estimate of the costs thereof.

**5.19.2 Standards.**

Any additions, modifications, or replacements made to a Party's facilities shall be designed, constructed, and operated in accordance with this LGIA and Good Utility Practice.

**5.19.3 Modification Costs.**

Interconnection Customer shall not be directly assigned for the costs of any additions, modifications, or replacements that Transmission Provider makes to Transmission Provider's Interconnection Facilities or the Transmission System to facilitate the interconnection of a third party to Transmission Provider's Interconnection Facilities or the Transmission System, or to provide transmission service to a third party under Transmission Provider's Tariff. Interconnection Customer shall be responsible for the costs of any additions, modifications, or replacements to Interconnection Customer's Interconnection Facilities that may be necessary to maintain or upgrade such Interconnection Customer's Interconnection Facilities consistent with Applicable Laws and Regulations, Applicable Reliability Standards or Good Utility Practice.

**Article 6. Testing and Inspection**

**6.1 Pre-Commercial Operation Date Testing and Modifications.**

Prior to the Commercial Operation Date, Transmission Provider shall test Transmission Provider's Interconnection Facilities and Network Upgrades and Interconnection Customer shall test the Large Generating Facility and Interconnection Customer's Interconnection Facilities to ensure their safe and reliable operation. Similar testing may be required after initial operation. Each Party shall make any modifications to its facilities that are found to be necessary as a result of such testing. Interconnection Customer shall bear the cost of all such testing and modifications. Interconnection Customer shall generate test energy at the Large Generating Facility only if it has arranged for the delivery of such test energy.

**6.2 Post-Commercial Operation Date Testing and Modifications.**

Each Party shall at its own expense perform routine inspection and testing of its facilities and equipment in accordance with Good Utility Practice as may be necessary to ensure the continued interconnection of the Large Generating Facility with the Transmission

System in a safe and reliable manner. Each Party shall have the right, upon advance written notice, to require reasonable additional testing of the other Party's facilities, at the requesting Party's expense, as may be in accordance with Good Utility Practice.

**6.3 Right to Observe Testing.**

Each Party shall notify the other Party in advance of its performance of tests of its Interconnection Facilities. The other Party has the right, at its own expense, to observe such testing.

**6.4 Right to Inspect.**

Each Party shall have the right, but shall have no obligation to: (i) observe the other Party's tests and/or inspection of any of its System Protection Facilities and other protective equipment, including Power System Stabilizers; (ii) review the settings of the other Party's System Protection Facilities and other protective equipment; and (iii) review the other Party's maintenance records relative to the Interconnection Facilities, the System Protection Facilities and other protective equipment. A Party may exercise these rights from time to time as it deems necessary upon reasonable notice to the other Party. The exercise or non-exercise by a Party of any such rights shall not be construed as an endorsement or confirmation of any element or condition of the Interconnection Facilities or the System Protection Facilities or other protective equipment or the operation thereof, or as a warranty as to the fitness, safety, desirability, or reliability of same. Any information that a Party obtains through the exercise of any of its rights under this Article 6.4 shall be deemed to be Confidential Information and treated pursuant to Article 22 of this LGIA.

**Article 7. Metering**

**7.1 General.**

Each Party shall comply with the Applicable Reliability Council requirements. Unless otherwise agreed by the Parties, Transmission Provider shall install Metering Equipment at the Point of Interconnection prior to any operation of the Large Generating Facility and shall own, operate, test and maintain such Metering Equipment. Power flows to and from the Large Generating Facility shall be measured at or, at Transmission Provider's option, compensated to, the Point of Interconnection. Transmission Provider shall provide metering quantities, in analog and/or digital form, to Interconnection Customer upon request. Interconnection Customer shall bear all reasonable documented costs associated with the purchase, installation, operation, testing and maintenance of the Metering Equipment.

**7.2 Check Meters.**

Interconnection Customer, at its option and expense, may install and operate, on its premises and on its side of the Point of Interconnection, one or more check meters to check Transmission Provider's meters. Such check meters shall be for check purposes only and shall not be used for the measurement of power flows for purposes of this LGIA, except as provided in Article 7.4 below. The check meters shall be subject at all reasonable times to inspection and examination by Transmission Provider or its designee. The installation, operation and maintenance thereof shall be performed entirely by Interconnection Customer in accordance with Good Utility Practice.

Proposed Effective Date: 12-5-2019

**7.3 Standards.**

Transmission Provider shall install, calibrate, and test revenue quality Metering Equipment in accordance with applicable ANSI standards.

**7.4 Testing of Metering Equipment.**

Transmission Provider shall inspect and test all Transmission Provider-owned Metering Equipment upon installation and at least once every two (2) years thereafter. If requested to do so by Interconnection Customer, Transmission Provider shall, at Interconnection Customer's expense, inspect or test Metering Equipment more frequently than every two (2) years. Transmission Provider shall give reasonable notice of the time when any inspection or test shall take place, and Interconnection Customer may have representatives present at the test or inspection. If at any time Metering Equipment is found to be inaccurate or defective, it shall be adjusted, repaired or replaced at Interconnection Customer's expense, in order to provide accurate metering, unless the inaccuracy or defect is due to Transmission Provider's failure to maintain, then Transmission Provider shall pay. If Metering Equipment fails to register, or if the measurement made by Metering Equipment during a test varies by more than two percent from the measurement made by the standard meter used in the test, Transmission Provider shall adjust the measurements by correcting all measurements for the period during which Metering Equipment was in error by using Interconnection Customer's check meters, if installed. If no such check meters are installed or if the period cannot be reasonably ascertained, the adjustment shall be for the period immediately preceding the test of the Metering Equipment equal to one-half the time from the date of the last previous test of the Metering Equipment.

**7.5 Metering Data.**

At Interconnection Customer's expense, the metered data shall be telemetered to one or more locations designated by Transmission Provider and one or more locations designated by Interconnection Customer. Such telemetered data shall be used, under normal operating conditions, as the official measurement of the amount of energy delivered from the Large Generating Facility to the Point of Interconnection.

**Article 8. Communications**

**8.1 Interconnection Customer Obligations.**

Interconnection Customer shall maintain satisfactory operating communications with Transmission Provider's Transmission System dispatcher or representative designated by Transmission Provider. Interconnection Customer shall provide standard voice line, dedicated voice line and facsimile communications at its Large Generating Facility control room or central dispatch facility through use of either the public telephone system, or a voice communications system that does not rely on the public telephone system. Interconnection Customer shall also provide the dedicated data circuit(s) necessary to provide Interconnection Customer data to Transmission Provider as set forth in Appendix D, Security Arrangements Details. The data circuit(s) shall extend from the Large Generating Facility to the location(s) specified by Transmission Provider. Any required maintenance of such communications equipment shall be performed by Interconnection Customer. Operational communications shall be activated and

maintained under, but not be limited to, the following events: system paralleling or separation, scheduled and unscheduled shutdowns, equipment clearances, and hourly and daily load data

## **8.2 Remote Terminal Unit.**

Prior to the Initial Synchronization Date of the Large Generating Facility, a Remote Terminal Unit, or equivalent data collection and transfer equipment acceptable to the Parties, shall be installed by Interconnection Customer, or by Transmission Provider at Interconnection Customer's expense, to gather accumulated and instantaneous data to be telemetered to the location(s) designated by Transmission Provider through use of a dedicated point-to-point data circuit(s) as indicated in Article 8.1. The communication protocol for the data circuit(s) shall be specified by Transmission Provider. Instantaneous bi-directional analog real power and reactive power flow information must be telemetered directly to the location(s) specified by Transmission Provider.

Each Party will promptly advise the other Party if it detects or otherwise learns of any metering, telemetry or communications equipment errors or malfunctions that require the attention and/or correction by the other Party. The Party owning such equipment shall correct such error or malfunction as soon as reasonably feasible.

## **8.3 No Annexation.**

Any and all equipment placed on the premises of a Party shall be and remain the property of the Party providing such equipment regardless of the mode and manner of annexation or attachment to real property, unless otherwise mutually agreed by the Parties.

## **8.4 Provision of Data from a Variable Energy Resource.**

The Interconnection Customer whose Generating Facility is a Variable Energy Resource shall provide meteorological and forced outage data to the Transmission Provider to the extent necessary for the Transmission Provider's development and deployment of power production forecasts for that class of Variable Energy Resources.

The Interconnection Customer with a Variable Energy Resource having wind as the energy source, at a minimum, will be required to provide the Transmission Provider with site-specific meteorological data including: manufacturer, model, and year of all wind turbines and meteorological instrumentation, latitude, longitude and hub height at every wind turbine and meteorological tower, real-time data including turbine generation (kW), wind speed (mph), turbine availability, wind direction (in degrees relative to true north), temperature (Celsius and F), pressure (mb), air density and turbine manufacturer power curve. The information provided shall be refreshed in approximately four-ten (4-10) second intervals with regard to its generation of Renewable Energy at the Facility.

The Interconnection Customer with a Variable Energy Resource having solar as the energy source, at a minimum, will be required to provide the Transmission Provider with site-specific meteorological data including: manufacturer, model and year of all panels, inverters and meteorological instrumentation, latitude and longitude of the center of the solar panels for every inverter and every meteorological tower, real-time data including inverter generation (kW), inverter availability, direct normal solar insolation (solar



Proposed Effective Date: 12-5-2019

intensity), temperature, barometric pressure, wind speed (mph), wind direction (degrees relative to true north) and solar panel manufacturer power curve. The information provided shall be refreshed as frequently as allowed by the SCADA System, not to exceed sixty (60) second intervals.

The Transmission Provider and Interconnection Customer whose Generating Facility is a Variable Energy Resource shall mutually agree to any additional meteorological data that are required for the development and deployment of a power production forecast. The Interconnection Customer whose Generating Facility is a Variable Energy Resource also shall submit data to the Transmission Provider regarding all forced outages to the extent necessary for the Transmission Provider's development and deployment of power production forecasts for that class of Variable Energy Resources. The exact specifications of the meteorological and forced outage data to be provided by the Interconnection Customer to the Transmission Provider including the frequency and timing of data submittals shall be made taking into account the size and configuration of the Variable Energy Resource, its characteristics, location, and its importance in maintaining generation resource adequacy and transmission system reliability in its area. All requirements for meteorological and forced outage data must be commensurate with the power production forecasting employed by the Transmission Provider. Such requirements for meteorological and forced outage data are set forth in Appendix C, Interconnection Details, of this LGIA, as they may change from time to time.

## **Article 9. Operations**

- 9.1 General.** Each Party shall comply with the Applicable Reliability Council requirements. Each Party shall provide to the other Party all information that may reasonably be required by the other Party to comply with Applicable Laws and Regulations and Applicable Reliability Standards.
- 9.2 Control Area Notification.** At least three months before Initial Synchronization Date, Interconnection Customer shall notify Transmission Provider in writing of the Control Area in which the Large Generating Facility will be located. If Interconnection Customer elects to locate the Large Generating Facility in a Control Area other than the Control Area in which the Large Generating Facility is physically located, and if permitted to do so by the relevant transmission tariffs, all necessary arrangements, including but not limited to those set forth in Article 7 and Article 8 of this LGIA, and remote Control Area generator interchange agreements, if applicable, and the appropriate measures under such agreements, shall be executed and implemented prior to the placement of the Large Generating Facility in the other Control Area.
- 9.3 Transmission Provider Obligations.** Transmission Provider shall cause the Transmission System and Transmission Provider's Interconnection Facilities to be operated, maintained and controlled in a safe and reliable manner and in accordance with this LGIA. Transmission Provider may provide operating instructions to Interconnection Customer consistent with this LGIA and Transmission Provider's operating protocols and procedures as they may change from time to time. Transmission Provider will consider changes to its operating protocols and procedures proposed by Interconnection Customer.

**9.4 Interconnection Customer Obligations.** Interconnection Customer shall at its own expense operate, maintain and control the Large Generating Facility and Interconnection Customer's Interconnection Facilities in a safe and reliable manner and in accordance with this LGIA. Interconnection Customer shall operate the Large Generating Facility and Interconnection Customer's Interconnection Facilities in accordance with all applicable requirements of the Control Area of which it is part, as such requirements are set forth in Appendix C, Interconnection Details, of this LGIA. Appendix C, Interconnection Details, will be modified to reflect changes to the requirements as they may change from time to time. Either Party may request that the other Party provide copies of the requirements set forth in Appendix C, Interconnection Details, of this LGIA.

**9.5 Start-Up and Synchronization.** Consistent with the Parties' mutually acceptable procedures, Interconnection Customer is responsible for the proper synchronization of the Large Generating Facility to Transmission Provider's Transmission System.

**9.6 Reactive Power and Primary Frequency Response.**

**9.6.1 Power Factor Design Criteria.**

**9.6.1.1 Synchronous Generation.** Interconnection Customer shall design the Large Generating Facility to maintain a composite power delivery at continuous rated power output at the Point of Interconnection at a power factor within the range of 0.95 leading to 0.95 lagging, unless the Transmission Provider has established different requirements that apply to all synchronous generators in the Control Area on a comparable basis.

**9.6.1.2 Non-Synchronous Generation.** Interconnection Customer shall design the Large Generating Facility to maintain a composite power delivery at continuous rated power output at the high-side of the generator substation at a power factor within the range of 0.95 leading to 0.95 lagging, unless the Transmission Provider has established a different power factor range that applies to all non-synchronous generators in the Control Area on a comparable basis. This power factor range standard shall be dynamic and can be met using, for example, power electronics designed to supply this level of reactive capability (taking into account any limitations due to voltage level, real power output, etc.) or fixed and switched capacitors, or a combination of the two. This requirement shall only apply to newly interconnecting non-synchronous generators that have not yet executed a Facilities Study Agreement as of the effective date of the Final Rule establishing this requirement (Order No. 827).<sup>1</sup> This requirement also applies to existing non-synchronous generators making upgrades that require a new Generator Interconnection Agreement where the System Impact Study shows the need for reactive power as a result of an upgrade.

Proposed Effective Date: 12-5-2019

[1] The effective date of Order 827 is October 14, 2016.

**9.6.2 Voltage Schedules.** Once Interconnection Customer has synchronized the Large Generating Facility with the Transmission System, Transmission Provider shall require Interconnection Customer to operate the Large Generating Facility to produce or absorb reactive power within the design limitations of the Large Generating Facility set forth in Article 9.6.1 (Power Factor Design Criteria). Transmission Provider's voltage schedules shall treat all sources of reactive power in the Control Area in an equitable and not unduly discriminatory manner. Transmission Provider shall exercise Reasonable Efforts to provide Interconnection Customer with such schedules at least one (1) day in advance, and may make changes to such schedules as necessary to maintain the reliability of the Transmission System. Interconnection Customer shall operate the Large Generating Facility to maintain the specified output voltage or power factor at the Point of Interconnection within the design limitations of the Large Generating Facility set forth in Article 9.6.1 (Power Factor Design Criteria). If Interconnection Customer is unable to maintain the specified voltage or power factor, it shall promptly notify the System Operator.

**9.6.2.1 Voltage Regulators.**

Whenever the Large Generating Facility is operated in parallel with the Transmission System and voltage regulators are capable of operation, Interconnection Customer shall operate the Large Generating Facility with its voltage regulators in automatic operation. If the Large Generating Facility's voltage regulators are not capable of such automatic operation, Interconnection Customer shall immediately notify Transmission Provider's system operator, or its designated representative, and ensure that such Large Generating Facility's reactive power production or absorption (measured in MVARs) are within the design capability of the Large Generating Facility's generating unit(s) and steady state stability limits. Interconnection Customer shall not cause its Large Generating Facility to disconnect automatically or instantaneously from the Transmission System or trip any generating unit comprising the Large Generating Facility for an under or over frequency condition unless the abnormal frequency condition persists for a time period beyond the limits set forth in ANSI/IEEE Standard C37.106, or such other standard as applied to other generators in the Control Area on a comparable basis.

**9.6.3 Payment for Reactive Power.**

Transmission Provider is required to pay Interconnection Customer for reactive power that Interconnection Customer provides or absorbs from the Large Generating Facility when Transmission Provider requests Interconnection Customer to operate its Large Generating Facility outside the range specified in Article 9.6.1, provided that if

Transmission Provider pays its own or affiliated generators for reactive power service within the specified range, it must also pay Interconnection Customer. Payments shall be pursuant to Article 11.6 or such other agreement to which the Parties have otherwise agreed.

#### **9.6.4 Primary Frequency Response.**

Interconnection Customer shall ensure the primary frequency response capability of its Large Generating Facility by installing, maintaining, and operating a functioning governor or equivalent controls. The term “functioning governor or equivalent controls” as used herein shall mean the required hardware and/or software that provides frequency responsive real power control with the ability to sense changes in system frequency and autonomously adjust the Large Generating Facility’s real power output in accordance with the droop and deadband parameters and in the direction needed to correct frequency deviations. Interconnection Customer is required to install a governor or equivalent controls with the capability of operating: (1) with a maximum 5 percent droop and  $\pm 0.036$  Hz deadband; or (2) in accordance with the relevant droop, deadband, and timely and sustained response settings from an approved NERC Reliability Standard providing for equivalent or more stringent parameters. The droop characteristic shall be: (1) based on the nameplate capacity of the Large Generating Facility, and shall be linear in the range of frequencies between 59 to 61 Hz that are outside of the deadband parameter; or (2) based on an approved NERC Reliability Standard providing for an equivalent or more stringent parameter. The deadband parameter shall be: the range of frequencies above and below nominal (60 Hz) in which the governor or equivalent controls is not expected to adjust the Large Generating Facility’s real power output in response to frequency deviations. The deadband shall be implemented: (1) without a step to the droop curve, that is, once the frequency deviation exceeds the deadband parameter, the expected change in the Large Generating Facility’s real power output in response to frequency deviations shall start from zero and then increase (for under-frequency deviations) or decrease (for over-frequency deviations) linearly in proportion to the magnitude of the frequency deviation; or (2) in accordance with an approved NERC Reliability Standard providing for an equivalent or more stringent parameter. Interconnection Customer shall notify Transmission Provider that the primary frequency response capability of the Large Generating Facility has been tested and confirmed during commissioning. Once Interconnection Customer has synchronized the Large Generating Facility with the Transmission System, Interconnection Customer shall operate the Large Generating Facility consistent with the provisions specified in Articles 9.6.4.1 and 9.6.4.2 of this Agreement. The primary frequency response requirements contained herein shall apply to both synchronous and non-synchronous Large Generating Facilities.

**9.6.4.1 Governor or Equivalent Controls.**

Whenever the Large Generating Facility is operated in parallel with the Transmission System, Interconnection Customer shall operate the Large Generating Facility with its governor or equivalent controls in service and responsive to frequency. Interconnection Customer shall: (1) in coordination with Transmission Provider and/or the relevant balancing authority, set the deadband parameter to: (1) a maximum of  $\pm 0.036$  Hz and set the droop parameter to a maximum of 5 percent or (2) implement the relevant droop and deadband settings from an approved NERC Reliability Standard that provides for equivalent or more stringent parameters. Interconnection Customer shall be required to provide the status and settings of the governor or equivalent controls to Transmission Provider and/or the relevant balancing authority upon request. If Interconnection Customer needs to operate the Large Generating Facility with its governor or equivalent controls not in service, Interconnection Customer shall immediately notify Transmission Provider and the relevant balancing authority, and provide both with the following information: (1) the operating status of the governor or equivalent controls (i.e., whether it is currently out of service or when it will be taken out of service); (2) the reasons for removing the governor or equivalent controls from service; and (3) a reasonable estimate of when the governor or equivalent controls will be returned to service. Interconnection Customer shall make Reasonable Efforts to return its governor or equivalent controls into service as soon as practicable. Interconnection Customer shall make Reasonable Efforts to keep outages of the Large Generating Facility's governor or equivalent controls to a minimum whenever the Large Generating Facility is operated in parallel with the Transmission System.

**9.6.4.2 Timely and Sustained Response.**

Interconnection Customer shall ensure that the Large Generating Facility's real power response to sustained frequency deviations outside of the deadband setting is automatically provided and shall begin immediately after frequency deviates outside of the deadband, and to the extent the Large Generating Facility has operating capability in the direction needed to correct the frequency deviation. Interconnection Customer shall not block or otherwise inhibit the ability of the governor or equivalent controls to respond and shall ensure that the response is not inhibited, except under certain operational constraints including, but not limited to, ambient temperature limitations, physical energy limitations, outages of mechanical equipment, or regulatory requirements. The Large Generating Facility shall sustain the real power response at least until system frequency returns to a value

within the deadband setting of the governor or equivalent controls. A Commission-approved Reliability Standard with equivalent or more stringent requirements shall supersede the above requirements.

**9.6.4.3 Exemptions.**

Large Generating Facilities that are regulated by the United States Nuclear Regulatory Commission shall be exempt from Articles 9.6.4, 9.6.4.1, and 9.6.4.2 of this Agreement. Large Generating Facilities that are behind the meter generation that is sized-to-load (i.e., the thermal load and the generation are near-balanced in real-time operation and the generation is primarily controlled to maintain the unique thermal, chemical, or mechanical output necessary for the operating requirements of its host facility) shall be required to install primary frequency response capability in accordance with the droop and deadband capability requirements specified in Article 9.6.4, but shall be otherwise exempt from the operating requirements in Articles 9.6.4, 9.6.4.1, 9.6.4.2, and 9.6.4.4 of this Agreement.

**9.6.4.4 Electric Storage Resources.**

Interconnection Customer interconnecting an electric storage resource shall establish an operating range in Appendix C of its LGIA that specifies a minimum state of charge and a maximum state of charge between which the electric storage resource will be required to provide primary frequency response consistent with the conditions set forth in Articles 9.6.4, 9.6.4.1, 9.6.4.2, and 9.6.4.3 of this Agreement. Appendix C shall specify whether the operating range is static or dynamic, and shall consider (1) the expected magnitude of frequency deviations in the interconnection; (2) the expected duration that system frequency will remain outside of the deadband parameter in the interconnection; (3) the expected incidence of frequency deviations outside of the deadband parameter in the interconnection; (4) the physical capabilities of the electric storage resource; (5) operational limitations of the electric storage resource due to manufacturer specifications; and (6) any other relevant factors agreed to by Transmission Provider and Interconnection Customer, and in consultation with the relevant transmission owner or balancing authority as appropriate. If the operating range is dynamic, then Appendix C must establish how frequently the operating range will be reevaluated and the factors that may be considered during its reevaluation.

Interconnection Customer's electric storage resource is required to provide timely and sustained primary frequency response consistent with Article 9.6.4.2 of this Agreement when it is online and dispatched to inject electricity to the Transmission System

and/or receive electricity from the Transmission System. This excludes circumstances when the electric storage resource is not dispatched to inject electricity to the Transmission System and/or dispatched to receive electricity from the Transmission System. If Interconnection Customer's electric storage resource is charging at the time of a frequency deviation outside of its deadband parameter, it is to increase (for over-frequency deviations) or decrease (for under-frequency deviations) the rate at which it is charging in accordance with its droop parameter. Interconnection Customer's electric storage resource is not required to change from charging to discharging, or vice versa, unless the response necessitated by the droop and deadband settings requires it to do so and it is technically capable of making such a transition.

## **9.7 Outages and Interruptions.**

### **9.7.1 Outages.**

#### **9.7.1.1 Outage Authority and Coordination.**

Each Party may in accordance with Good Utility Practice in coordination with the other Party remove from service any of its respective Interconnection Facilities or Network Upgrades that may impact the other Party's facilities as necessary to perform maintenance or testing or to install or replace equipment. Absent an Emergency Condition, the Party scheduling a removal of such facility(ies) from service will use Reasonable Efforts to schedule such removal on a date and time mutually acceptable to the Parties. In all circumstances, any Party planning to remove such facility(ies) from service shall use Reasonable Efforts to minimize the effect on the other Party of such removal.

#### **9.7.1.2 Outage Schedules.**

Transmission Provider shall post scheduled outages of its transmission facilities on the OASIS. Interconnection Customer shall submit its planned maintenance schedules for the Large Generating Facility to Transmission Provider for a minimum of a rolling twenty-four month period. Interconnection Customer shall update its planned maintenance schedules as necessary. Transmission Provider may request Interconnection Customer to reschedule its maintenance as necessary to maintain the reliability of the Transmission System; provided, however, adequacy of generation supply shall not be a criterion in determining Transmission System reliability. Transmission Provider shall compensate Interconnection Customer for any additional direct costs that Interconnection Customer incurs as a result of having to reschedule maintenance, including any additional overtime, breaking of maintenance contracts or other costs above and beyond the cost Interconnection Customer would have incurred

Proposed Effective Date: 12-5-2019

absent Transmission Provider's request to reschedule maintenance. Interconnection Customer will not be eligible to receive compensation, if during the twelve (12) months prior to the date of the scheduled maintenance, Interconnection Customer had modified its schedule of maintenance activities.

**9.7.1.3 Outage Restoration.**

If an outage on a Party's Interconnection Facilities or Network Upgrades adversely affects the other Party's operations or facilities, the Party that owns or controls the facility that is out of service shall use Reasonable Efforts to promptly restore such facility(ies) to a normal operating condition consistent with the nature of the outage. The Party that owns or controls the facility that is out of service shall provide the other Party, to the extent such information is known, information on the nature of the Emergency Condition, an estimated time of restoration, and any corrective actions required. Initial verbal notice shall be followed up as soon as practicable with written notice explaining the nature of the outage.

**9.7.2 Interruption of Service.**

If required by Good Utility Practice to do so, Transmission Provider may require Interconnection Customer to interrupt or reduce deliveries of electricity if such delivery of electricity could adversely affect Transmission Provider's ability to perform such activities as are necessary to safely and reliably operate and maintain the Transmission System. The following provisions shall apply to any interruption or reduction permitted under this Article 9.7.2:

**9.7.2.1** The interruption or reduction shall continue only for so long as reasonably necessary under Good Utility Practice;

**9.7.2.2** Any such interruption or reduction shall be made on an equitable, non-discriminatory basis with respect to all generating facilities directly connected to the Transmission System;

**9.7.2.3** When the interruption or reduction must be made under circumstances which do not allow for advance notice, Transmission Provider shall notify Interconnection Customer by telephone as soon as practicable of the reasons for the curtailment, interruption, or reduction, and, if known, its expected duration. Telephone notification shall be followed by written notification as soon as practicable;

**9.7.2.4** Except during the existence of an Emergency Condition, when the interruption or reduction can be scheduled without advance notice, Transmission Provider shall notify Interconnection Customer in advance regarding the timing of such scheduling and further notify



Proposed Effective Date: 12-5-2019

Interconnection Customer of the expected duration. Transmission Provider shall coordinate with Interconnection Customer using Good Utility Practice to schedule the interruption or reduction during periods of least impact to Interconnection Customer and Transmission Provider; and

- 9.7.2.5** The Parties shall cooperate and coordinate with each other to the extent necessary in order to restore the Large Generating Facility, Interconnection Facilities, and the Transmission System to their normal operating state, consistent with system conditions and Good Utility Practice.

**9.7.3 Under-Frequency and Over Frequency Conditions.**

The Transmission System is designed to automatically activate a load-shed program as required by the Applicable Reliability Council in the event of an under-frequency system disturbance. Interconnection Customer shall implement under-frequency and over-frequency relay set points for the Large Generating Facility as required by the Applicable Reliability Council to ensure "ride through" capability of the Transmission System. Large Generating Facility response to frequency deviations of pre-determined magnitudes, both under-frequency and over-frequency deviations, shall be studied and coordinated with Transmission Provider in accordance with Good Utility Practice. The term "ride through" as used herein shall mean the ability of a Generating Facility to stay connected to and synchronized with the Transmission System during system disturbances within a range of under-frequency and over-frequency conditions, in accordance with Good Utility Practice.

**9.7.4 System Protection and Other Control Requirements.**

- 9.7.4.1 System Protection Facilities.** Interconnection Customer shall, at its expense, install, operate and maintain System Protection Facilities as a part of the Large Generating Facility or Interconnection Customer's Interconnection Facilities. Transmission Provider shall install at Interconnection Customer's expense any System Protection Facilities that may be required on Transmission Provider's Interconnection Facilities or the Transmission System as a result of the interconnection of the Large Generating Facility and Interconnection Customer's Interconnection Facilities.

- 9.7.4.2** Each Party's protection facilities shall be designed and coordinated with other systems in accordance with Good Utility Practice.

- 9.7.4.3** Each Party shall be responsible for protection of its facilities consistent with Good Utility Practice.

Proposed Effective Date: 12-5-2019

Approved Effective Date:

**9.7.4.4** Each Party's protective relay design shall incorporate the necessary test switches to perform the tests required in Article 6. The required test switches will be placed such that they allow operation of lockout relays while preventing breaker failure schemes from operating and causing unnecessary breaker operations and/or the tripping of Interconnection Customer's units.

**9.7.4.5** Each Party will test, operate and maintain System Protection Facilities in accordance with Good Utility Practice.

**9.7.4.6** Prior to the In-Service Date, and again prior to the Commercial Operation Date, each Party or its agent shall perform a complete calibration test and functional trip test of the System Protection Facilities. At intervals suggested by Good Utility Practice and following any apparent malfunction of the System Protection Facilities, each Party shall perform both calibration and functional trip tests of its System Protection Facilities. These tests do not require the tripping of any in-service generation unit. These tests do, however, require that all protective relays and lockout contacts be activated

**9.7.5 Requirements for Protection.**

In compliance with Good Utility Practice, Interconnection Customer shall provide, install, own, and maintain relays, circuit breakers and all other devices necessary to remove any fault contribution of the Large Generating Facility to any short circuit occurring on the Transmission System not otherwise isolated by Transmission Provider's equipment, such that the removal of the fault contribution shall be coordinated with the protective requirements of the Transmission System. Such protective equipment shall include, without limitation, a disconnecting device or switch with load-interrupting capability located between the Large Generating Facility and the Transmission System at a site selected upon mutual agreement (not to be unreasonably withheld, conditioned or delayed) of the Parties. Interconnection Customer shall be responsible for protection of the Large Generating Facility and Interconnection Customer's other equipment from such conditions as negative sequence currents, over- or under-frequency, sudden load rejection, over- or under-voltage, and generator loss-of-field. Interconnection Customer shall be solely responsible to disconnect the Large Generating Facility and Interconnection Customer's other equipment if conditions on the Transmission System could adversely affect the Large Generating Facility.

**9.7.6 Power Quality.**

Neither Party's facilities shall cause excessive voltage flicker nor introduce excessive distortion to the sinusoidal voltage or current waves as defined by ANSI Standard C84.1-1989, in accordance with IEEE Standard 519, or any applicable superseding electric industry standard. In the event of a conflict between ANSI Standard C84.1-1989, or any applicable superseding electric

Proposed Effective Date: 12-5-2019

industry standard, ANSI Standard C84.1-1989, or the applicable superseding electric industry standard, shall control.

**9.8 Switching and Tagging Rules.**

Each Party shall provide the other Party a copy of its switching and tagging rules that are applicable to the other Party's activities. Such switching and tagging rules shall be developed on a non-discriminatory basis. The Parties shall comply with applicable switching and tagging rules, as amended from time to time, in obtaining clearances for work or for switching operations on equipment.

**9.9 Use of Interconnection Facilities by Third Parties.**

**9.9.1 Purpose of Interconnection Facilities.**

Except as may be required by Applicable Laws and Regulations, or as otherwise agreed to among the Parties, the Interconnection Facilities shall be constructed for the sole purpose of interconnecting the Large Generating Facility to the Transmission System and shall be used for no other purpose.

**9.9.2 Third Party Users.**

If required by Applicable Laws and Regulations or if the Parties mutually agree, such agreement not to be unreasonably withheld, to allow one or more third parties to use Transmission Provider's Interconnection Facilities, or any part thereof, Interconnection Customer will be entitled to compensation for the capital expenses it incurred in connection with the Interconnection Facilities based upon the pro rata use of the Interconnection Facilities by Transmission Provider, all third party users, and Interconnection Customer, in accordance with Applicable Laws and Regulations or upon some other mutually-agreed upon methodology. In addition, cost responsibility for ongoing costs, including operation and maintenance costs associated with the Interconnection Facilities, will be allocated between Interconnection Customer and any third party users based upon the pro rata use of the Interconnection Facilities by Transmission Provider, all third party users, and Interconnection Customer, in accordance with Applicable Laws and Regulations or upon some other mutually agreed upon methodology. If the issue of such compensation or allocation cannot be resolved through such negotiations, it shall be submitted to FERC for resolution.

**9.10 Disturbance Analysis Data Exchange.**

The Parties will cooperate with one another in the analysis of disturbances to either the Large Generating Facility or Transmission Provider's Transmission System by gathering and providing access to any information relating to any disturbance, including information from oscillography, protective relay targets, breaker operations and sequence of events records, and any disturbance information required by Good Utility Practice

**Article 10. Maintenance.**

**10.1 Transmission Provider Obligations.**

Proposed Effective Date: 12-5-2019

Transmission Provider shall maintain the Transmission System and Transmission Provider's Interconnection Facilities in a safe and reliable manner and in accordance with this LGIA.

**10.2 Interconnection Customer Obligations.**

Interconnection Customer shall maintain the Large Generating Facility and Interconnection Customer's Interconnection Facilities in a safe and reliable manner and in accordance with this LGIA.

**10.3 Coordination.**

The Parties shall confer regularly to coordinate the planning, scheduling and performance of preventive and corrective maintenance on the Large Generating Facility and the Interconnection Facilities.

**10.4 Secondary Systems.**

Each Party shall cooperate with the other in the inspection, maintenance, and testing of control or power circuits that operate below 600 volts, AC or DC, including, but not limited to, any hardware, control or protective devices, cables, conductors, electric raceways, secondary equipment panels, transducers, batteries, chargers, and voltage and current transformers that directly affect the operation of a Party's facilities and equipment which may reasonably be expected to impact the other Party. Each Party shall provide advance notice to the other Party before undertaking any work on such circuits, especially on electrical circuits involving circuit breaker trip and close contacts, current transformers, or potential transformers.

**10.5 Operating and Maintenance Expenses.**

Subject to the provisions herein addressing the use of facilities by others, and except for operations and maintenance expenses associated with modifications made for providing interconnection or transmission service to a third party and such third party pays for such expenses, Interconnection Customer shall be responsible for all reasonable expenses including overheads, associated with: (1) owning, operating, maintaining, repairing, and replacing Interconnection Customer's Interconnection Facilities; and (2) operation, maintenance, repair and replacement of Transmission Provider's Interconnection Facilities.

**Article 11. Performance Obligation.**

**11.1 Interconnection Customer Interconnection Facilities.**

Interconnection Customer shall design, procure, construct, install, own and/or control Interconnection Customer Interconnection Facilities described in Appendix A, Interconnection Facilities, Network Upgrades and Distribution Upgrades, at its sole expense.

**11.2 Transmission Provider's Interconnection Facilities.**

Transmission Provider or Transmission Owner shall design, procure, construct, install, own and/or control the Transmission Provider's Interconnection Facilities described in Appendix A, Interconnection Facilities, Network Upgrades and Distribution Upgrades, at the sole expense of the Interconnection Customer.

Proposed Effective Date: 12-5-2019

### **11.3 Network Upgrades and Distribution Upgrades.**

Transmission Provider or Transmission Owner shall design, procure, construct, install, and own the Network Upgrades and Distribution Upgrades described in Appendix A, Interconnection Facilities, Network Upgrades and Distribution Upgrades. The Interconnection Customer shall be responsible for all costs related to Distribution Upgrades. Unless Transmission Provider or Transmission Owner elects to fund the capital for the Network Upgrades, they shall be solely funded by Interconnection Customer.

### **11.4 Transmission Credits.**

#### **11.4.1 Repayment of Amounts Advanced for Network Upgrades.**

Interconnection Customer shall be entitled to a cash repayment, equal to the total amount paid to Transmission Provider and Affected System Operator, if any, for the Network Upgrades, including any tax gross-up or other tax-related payments associated with Network Upgrades, and not refunded to Interconnection Customer pursuant to Article 5.17.8 or otherwise, to be paid to Interconnection Customer on a dollar-for-dollar basis for the non-usage sensitive portion of transmission charges, as payments are made under Transmission Provider's Tariff and Affected System's Tariff for transmission services with respect to the Large Generating Facility. Any repayment shall include interest calculated in accordance with the methodology set forth in FERC's regulations at 18 CFR § 35.19a(a)(2)(iii) from the date of any cash payment for Network Upgrades through the date on which the Interconnection Customer receives a repayment of such payment pursuant to this subparagraph. Interconnection Customer may assign such repayment rights to any person.

Notwithstanding the foregoing, Interconnection Customer, Transmission Provider, and Affected System Operator may adopt any alternative payment schedule that is mutually agreeable so long as Transmission Provider and Affected System Operator take one of the following actions no later than five years from the Commercial Operation Date: (1) return to Interconnection Customer any amounts advanced for Network Upgrades not previously repaid, or (2) declare in writing that Transmission Provider or Affected System Operator will continue to provide payments to Interconnection Customer on a dollar-for-dollar basis for the non-usage sensitive portion of transmission charges, or develop an alternative schedule that is mutually agreeable and provides for the return of all amounts advanced for Network Upgrades not previously repaid; however, full reimbursement shall not extend beyond twenty (20) years from the Commercial Operation Date.

If the Large Generating Facility fails to achieve Commercial Operation, but it or another Generating Facility is later constructed and makes use of the Network Upgrades, Transmission Provider and Affected System Operator shall at that time reimburse Interconnection Customer for the amounts advanced for the Network Upgrades. Before any such reimbursement can

Proposed Effective Date: 12-5-2019

occur, the Interconnection Customer, or the entity that ultimately constructs the Generating Facility, if different, is responsible for identifying the entity to which reimbursement must be made.

**11.4.2 Special Provisions for Affected Systems.**

Unless Transmission Provider provides, under the LGIA, for the repayment of amounts advanced to Affected System Operator for Network Upgrades, Interconnection Customer and Affected System Operator shall enter into an agreement that provides for such repayment. The agreement shall specify the terms governing payments to be made by Interconnection Customer to the Affected System Operator as well as the repayment by the Affected System Operator.

- 11.4.3** Notwithstanding any other provision of this LGIA, nothing herein shall be construed as relinquishing or foreclosing any rights, including but not limited to firm transmission rights, capacity rights, transmission congestion rights, or transmission credits, that Interconnection Customer, shall be entitled to, now or in the future under any other agreement or tariff as a result of, or otherwise associated with, the transmission capacity, if any, created by the Network Upgrades, including the right to obtain cash reimbursements or transmission credits for transmission service that is not associated with the Large Generating Facility.

**11.5 Provision of Security.**

At least thirty (30) Calendar Days prior to the commencement of the procurement, installation, or construction of a discrete portion of a Transmission Provider's Interconnection Facilities, Network Upgrades, or Distribution Upgrades, Interconnection Customer shall provide Transmission Provider, at Interconnection Customer's option, a guarantee, a surety bond, letter of credit or other form of security that is reasonably acceptable to Transmission Provider and is consistent with the Uniform Commercial Code of the jurisdiction identified in Article 14.2.1. Such security for payment shall be in an amount sufficient to cover the costs for constructing, procuring and installing the applicable portion of Transmission Provider's Interconnection Facilities, Network Upgrades, or Distribution Upgrades and shall be reduced on a dollar-for-dollar basis for payments made to Transmission Provider for these purposes.

In addition:

- 11.5.1** The guarantee must be made by an entity that meets the creditworthiness requirements of Transmission Provider, and contain terms and conditions that guarantee payment of any amount that may be due from Interconnection Customer, up to an agreed-to maximum amount.
- 11.5.2** The letter of credit must be issued by a financial institution reasonably acceptable to Transmission Provider and must specify a reasonable expiration date.

Proposed Effective Date: 12-5-2019

Approved Effective Date:

**11.5.3** The surety bond must be issued by an insurer reasonably acceptable to Transmission Provider and must specify a reasonable expiration date.

**11.6 Interconnection Customer Compensation.**

If Transmission Provider requests or directs Interconnection Customer to provide a service pursuant to Articles 9.6.3 (Payment for Reactive Power), or 13.5.1 of this LGIA, Transmission Provider shall compensate Interconnection Customer in accordance with Interconnection Customer's applicable rate schedule then in effect unless the provision of such service(s) is subject to an RTO or ISO FERC-approved rate schedule. Interconnection Customer shall serve Transmission Provider or RTO or ISO with any filing of a proposed rate schedule at the time of such filing with FERC. To the extent that no rate schedule is in effect at the time the Interconnection Customer is required to provide or absorb any Reactive Power under this LGIA, Transmission Provider agrees to compensate Interconnection Customer in such amount as would have been due Interconnection Customer had the rate schedule been in effect at the time service commenced; provided, however, that such rate schedule must be filed at FERC or other appropriate Governmental Authority within sixty (60) Calendar Days of the commencement of service

**11.6.1 Interconnection Customer Compensation for Actions During Emergency Condition.**

Transmission Provider or RTO or ISO shall compensate Interconnection Customer for its provision of real and reactive power and other Emergency Condition services that Interconnection Customer provides to support the Transmission System during an Emergency Condition in accordance with Article 11.6.

**Article 12. Invoice.**

**12.1 General.**

Each Party shall submit to the other Party, on a monthly basis, invoices of amounts due for the preceding month. Each invoice shall state the month to which the invoice applies and fully describe the services and equipment provided. The Parties may discharge mutual debts and payment obligations due and owing to each other on the same date through netting, in which case all amounts a Party owes to the other Party under this LGIA, including interest payments or credits, shall be netted so that only the net amount remaining due shall be paid by the owing Party.

**12.2 Final Invoice.**

Within six months after completion of the construction of Transmission Provider's Interconnection Facilities and the Network Upgrades, Transmission Provider shall provide an invoice of the final cost of the construction of Transmission Provider's Interconnection Facilities and the Network Upgrades and shall set forth such costs in sufficient detail to enable Interconnection Customer to compare the actual costs with the estimates and to ascertain deviations, if any, from the cost estimates. Transmission Provider shall refund to Interconnection Customer any amount by which the actual payment by Interconnection Customer for estimated costs exceeds the actual costs of

construction within thirty (30) Calendar Days of the issuance of such final construction invoice.

### **12.3 Payment.**

Invoices shall be rendered to the paying Party at the address specified in Appendix F. The Party receiving the invoice shall pay the invoice within thirty (30) Calendar Days of receipt. All payments shall be made in immediately available funds payable to the other Party, or by wire transfer to a bank named and account designated by the invoicing Party. Payment of invoices by either Party will not constitute a waiver of any rights or claims either Party may have under this LGIA. If Interconnection Customer has not paid the final invoice following a withdrawal within thirty (30) Calendar Days, Transmission Provider shall draw upon the security provided under this LGIA to settle all accounts, which shall include any offsets of amounts due and owing by Transmission Provider. After the final invoice is paid and all accounts are settled, Transmission Provider shall refund all remaining security.

### **12.4 Disputes.**

In the event of a billing dispute between Transmission Provider and Interconnection Customer, Transmission Provider shall continue to provide Interconnection Service under this LGIA as long as Interconnection Customer: (i) continues to make all payments not in dispute; and (ii) pays to Transmission Provider or into an independent escrow account the portion of the invoice in dispute, pending resolution of such dispute. If Interconnection Customer fails to meet these two requirements for continuation of service, then Transmission Provider may provide notice to Interconnection Customer of a Default pursuant to Article 17. Within thirty (30) Calendar Days after the resolution of the dispute, the Party that owes money to the other Party shall pay the amount due with interest calculated in accord with the methodology set forth in FERC's regulations at 18 CFR § 35.19a(a)(2)(iii)

## **Article 13. Emergencies**

### **13.1 Definition.**

Emergency Condition" shall mean a condition or situation: (i) that in the judgment of the Party making the claim is imminently likely to endanger life or property; (ii) that, in the case of Transmission Provider, is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to the Transmission System, Transmission Provider's Interconnection Facilities or the Transmission Systems of others to which the Transmission System is directly connected; or (iii) that, in the case of Interconnection Customer, is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to, the Large Generating Facility or Interconnection Customer's Interconnection Facilities. System restoration and black start shall be considered Emergency Conditions; provided, that Interconnection Customer is not obligated by this LGIA to possess black start capability.

### **13.2 Obligations.**



Proposed Effective Date: 12-5-2019

Approved Effective Date:

Each Party shall comply with the Emergency Condition procedures of the applicable ISO/RTO, NERC, the Applicable Reliability Council, Applicable Laws and Regulations, and any emergency procedures agreed to by the Joint Operating Committee.

### **13.3 Notice.**

Transmission Provider shall notify Interconnection Customer promptly when it becomes aware of an Emergency Condition that affects Transmission Provider's Interconnection Facilities or the Transmission System that may reasonably be expected to affect Interconnection Customer's operation of the Large Generating Facility or Interconnection Customer's Interconnection Facilities. Interconnection Customer shall notify Transmission Provider promptly when it becomes aware of an Emergency Condition that affects the Large Generating Facility or Interconnection Customer's Interconnection Facilities that may reasonably be expected to affect the Transmission System or Transmission Provider's Interconnection Facilities. To the extent information is known, the notification shall describe the Emergency Condition, the extent of the damage or deficiency, the expected effect on the operation of Interconnection Customer's or Transmission Provider's facilities and operations, its anticipated duration and the corrective action taken and/or to be taken. The initial notice shall be followed as soon as practicable with written notice.

### **13.4 Immediate Action.**

Unless, in Interconnection Customer's reasonable judgment, immediate action is required, Interconnection Customer shall obtain the consent of Transmission Provider, such consent to not be unreasonably withheld, prior to performing any manual switching operations at the Large Generating Facility or Interconnection Customer's Interconnection Facilities in response to an Emergency Condition either declared by Transmission Provider or otherwise regarding the Transmission System.

### **13.5 Transmission Provider Authority.**

#### **13.5.1 General.**

Transmission Provider may take whatever actions or inactions with regard to the Transmission System or Transmission Provider's Interconnection Facilities it deems necessary during an Emergency Condition in order to (i) preserve public health and safety, (ii) preserve the reliability of the Transmission System or Transmission Provider's Interconnection Facilities, (iii) limit or prevent damage, and (iv) expedite restoration of service.

Transmission Provider shall use Reasonable Efforts to minimize the effect of such actions or inactions on the Large Generating Facility or Interconnection Customer's Interconnection Facilities. Transmission Provider may, on the basis of technical considerations, require the Large Generating Facility to mitigate an Emergency Condition by taking actions necessary and limited in scope to remedy the Emergency Condition, including, but not limited to, directing Interconnection Customer to shut-down, start-up, increase or decrease the real or reactive power output of the Large Generating Facility; implementing a reduction or disconnection pursuant to Article 13.5.2; directing Interconnection Customer to assist with blackstart (if available) or

Proposed Effective Date: 12-5-2019

restoration efforts; or altering the outage schedules of the Large Generating Facility and Interconnection Customer's Interconnection Facilities. Interconnection Customer shall comply with all of Transmission Provider's operating instructions concerning Large Generating Facility real power and reactive power output within the manufacturer's design limitations of the Large Generating Facility's equipment that is in service and physically available for operation at the time, in compliance with Applicable Laws and Regulations.

**13.5.2 Reduction and Disconnection.**

Transmission Provider may reduce Interconnection Service or disconnect the Large Generating Facility or Interconnection Customer's Interconnection Facilities, when such, reduction or disconnection is necessary under Good Utility Practice due to Emergency Conditions. These rights are separate and distinct from any right of curtailment of Transmission Provider pursuant to Transmission Provider's Tariff. When Transmission Provider can schedule the reduction or disconnection in advance, Transmission Provider shall notify Interconnection Customer of the reasons, timing and expected duration of the reduction or disconnection. Transmission Provider shall coordinate with Interconnection Customer using Good Utility Practice to schedule the reduction or disconnection during periods of least impact to Interconnection Customer and Transmission Provider. Any reduction or disconnection shall continue only for so long as reasonably necessary under Good Utility Practice. The Parties shall cooperate with each other to restore the Large Generating Facility, the Interconnection Facilities, and the Transmission System to their normal operating state as soon as practicable consistent with Good Utility Practice.

**13.6 Interconnection Customer Authority.**

Consistent with Good Utility Practice and the LGIA and the Revised LGIP, Interconnection Customer may take actions or inactions with regard to the Large Generating Facility or Interconnection Customer's Interconnection Facilities during an Emergency Condition in order to (i) preserve public health and safety, (ii) preserve the reliability of the Large Generating Facility or Interconnection Customer's Interconnection Facilities, (iii) limit or prevent damage, and (iv) expedite restoration of service. Interconnection Customer shall use Reasonable Efforts to minimize the effect of such actions or inactions on the Transmission System and Transmission Provider's Interconnection Facilities. Transmission Provider shall use Reasonable Efforts to assist Interconnection Customer in such actions.

**13.7 Limited Liability.**

Except as otherwise provided in Article 11.6.1 of this LGIA, neither Party shall be liable to the other for any action it takes in responding to an Emergency Condition so long as such action is made in good faith and is consistent with Good Utility Practice.

**Article 14. Regulatory Requirements and Governing Law**

**14.1 Regulatory Requirements.**

Proposed Effective Date: 12-5-2019

Each Party's obligations under this LGIA shall be subject to its receipt of any required approval or certificate from one or more Governmental Authorities in the form and substance satisfactory to the applying Party, or the Party making any required filings with, or providing notice to, such Governmental Authorities, and the expiration of any time period associated therewith. Each Party shall in good faith seek and use its Reasonable Efforts to obtain such other approvals. Nothing in this LGIA shall require Interconnection Customer to take any action that could result in its inability to obtain, or its loss of, status or exemption under the Federal Power Act, the Public Utility Holding Company Act of 1935, as amended, or the Public Utility Regulatory Policies Act of 1978.

## **14.2 Governing Law.**

- 14.2.1** The validity, interpretation and performance of this LGIA and each of its provisions shall be governed by the laws of the state where the Point of Interconnection is located, without regard to its conflicts of law principles.
- 14.2.2** This LGIA is subject to all Applicable Laws and Regulations.
- 14.2.3** Each Party expressly reserves the right to seek changes in, appeal, or otherwise contest any laws, orders, rules, or regulations of a Governmental Authority.

## **Article 15. Notices**

### **15.1 General.**

Unless otherwise provided in this LGIA, any notice, demand or request required or permitted to be given by either Party to the other and any instrument required or permitted to be tendered or delivered by either Party in writing to the other shall be effective when delivered and may be so given, tendered or delivered, by recognized national courier, or by depositing the same with the United States Postal Service with postage prepaid, for delivery by certified or registered mail, addressed to the Party, or personally delivered to the Party, at the address set out in Appendix F, Addresses for Delivery of Notices and Billings.

Either Party may change the notice information in this LGIA by giving five (5) Business Days written notice prior to the effective date of the change.

### **15.2 Billings and Payments.**

Billings and payments shall be sent to the addresses set out in Appendix F.

### **15.3 Alternative Forms of Notice.**

Any notice or request required or permitted to be given by a Party to the other and not required by this Agreement to be given in writing may be so given by telephone, facsimile or email to the telephone numbers and email addresses set out in Appendix F.

### **15.4 Operations and Maintenance Notice.**

Proposed Effective Date: 12-5-2019

Each Party shall notify the other Party in writing of the identity of the person(s) that it designates as the point(s) of contact with respect to the implementation of Articles 9 and 10.

## **Article 16. Force Majeure**

### **16.1 Force Majeure.**

#### **16.1.1 Economic hardship is not considered a Force Majeure event.**

**16.1.2** Neither Party shall be considered to be in Default with respect to any obligation hereunder, (including obligations under Article 4), other than the obligation to pay money when due, if prevented from fulfilling such obligation by Force Majeure. A Party unable to fulfill any obligation hereunder (other than an obligation to pay money when due) by reason of Force Majeure shall give notice and the full particulars of such Force Majeure to the other Party in writing or by telephone as soon as reasonably possible after the occurrence of the cause relied upon. Telephone notices given pursuant to this article shall be confirmed in writing as soon as reasonably possible and shall specifically state full particulars of the Force Majeure, the time and date when the Force Majeure occurred and when the Force Majeure is reasonably expected to cease. The Party affected shall exercise due diligence to remove such disability with reasonable dispatch, but shall not be required to accede or agree to any provision not satisfactory to it in order to settle and terminate a strike or other labor disturbance.

## **Article 17. Default**

### **17.1 Default.**

#### **17.1.1 General.**

No Default shall exist where such failure to discharge an obligation (other than the payment of money) is the result of Force Majeure as defined in this LGIA or the result of an act of omission of the other Party. Upon a Breach, the non-breaching Party shall give written notice of such Breach to the breaching Party. Except as provided in Article 17.1.2, the breaching Party shall have thirty (30) Calendar Days from receipt of the Default notice within which to cure such Breach; provided however, if such Breach is not capable of cure within thirty (30) Calendar Days, the breaching Party shall commence such cure within thirty (30) Calendar Days after notice and continuously and diligently complete such cure within ninety (90) Calendar Days from receipt of the Default notice; and, if cured within such time, the Breach specified in such notice shall cease to exist.

#### **17.1.2 Right to Terminate.**

If a Breach is not cured as provided in this article, or if a Breach is not capable of being cured within the period provided for herein, the non-breaching Party shall have the right to declare a Default and terminate this

Proposed Effective Date: 12-5-2019

LGIA by written notice at any time until cure occurs, and be relieved of any further obligation hereunder and, whether or not that Party terminates this LGIA, to recover from the breaching Party all amounts due hereunder, plus all other damages and remedies to which it is entitled at law or in equity. The provisions of this article will survive termination of this LGIA.

## **Article 18. Indemnity, Consequential Damages and Insurance**

### **18.1 Indemnity.**

The Parties shall at all times indemnify, defend, and hold the other Party harmless from, any and all damages, losses, claims, including claims and actions relating to injury to or death of any person or damage to property, demand, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties, arising out of or resulting from the other Party's action or inactions of its obligations under this LGIA on behalf of the Indemnifying Party, except in cases of gross negligence or intentional wrongdoing by the Indemnified Party.

#### **18.1.1 Indemnified Person.**

If an Indemnified Person is entitled to indemnification under this Article 18 as a result of a claim by a third party, and the Indemnifying Party fails, after notice and reasonable opportunity to proceed under Article 18.1, to assume the defense of such claim, such Indemnified Person may at the expense of the Indemnifying Party contest, settle or consent to the entry of any judgment with respect to, or pay in full, such claim.

#### **18.1.2 Indemnifying Party.**

If an Indemnifying Party is obligated to indemnify and hold any Indemnified Person harmless under this Article 18, the amount owing to the Indemnified Person shall be the amount of such Indemnified Person's actual Loss, net of any insurance or other recovery.

#### **18.1.3 Indemnity Procedures.**

Promptly after receipt by an Indemnified Person of any claim or notice of the commencement of any action or administrative or legal proceeding or investigation as to which the indemnity provided for in Article 18.1 may apply, the Indemnified Person shall notify the Indemnifying Party of such fact. Any failure of or delay in such notification shall not affect a Party's indemnification obligation unless such failure or delay is materially prejudicial to the Indemnifying Party.

The Indemnifying Party shall have the right to assume the defense thereof with counsel designated by such Indemnifying Party and reasonably satisfactory to the Indemnified Person. If the defendants in any such action include one or more Indemnified Persons and the Indemnifying Party and if the Indemnified Person reasonably concludes that there may be legal defenses available to it and/or other Indemnified Persons which are different from or additional to those available to the Indemnifying Party, the Indemnified Person shall have the right to select separate counsel to assert

such legal defenses and to otherwise participate in the defense of such action on its own behalf. In such instances, the Indemnifying Party shall only be required to pay the fees and expenses of one additional attorney to represent an Indemnified Person or Indemnified Persons having such differing or additional legal defenses.

The Indemnified Person shall be entitled, at its expense, to participate in any such action, suit or proceeding, the defense of which has been assumed by the Indemnifying Party. Notwithstanding the foregoing, the Indemnifying Party (i) shall not be entitled to assume and control the defense of any such action, suit or proceedings if and to the extent that, in the opinion of the Indemnified Person and its counsel, such action, suit or proceeding involves the potential imposition of criminal liability on the Indemnified Person, or there exists a conflict or adversity of interest between the Indemnified Person and the Indemnifying Party, in such event the Indemnifying Party shall pay the reasonable expenses of the Indemnified Person, and (ii) shall not settle or consent to the entry of any judgment in any action, suit or proceeding without the consent of the Indemnified Person, which shall not be reasonably withheld, conditioned or delayed.

## **18.2 Consequential Damages.**

Other than the Liquidated Damages heretofore described, in no event shall either Party be liable under any provision of this LGIA for any losses, damages, costs or expenses for any special, indirect, incidental, consequential, or punitive damages, including but not limited to loss of profit or revenue, loss of the use of equipment, cost of capital, cost of temporary equipment or services, whether based in whole or in part in contract, in tort, including negligence, strict liability, or any other theory of liability; provided, however, that damages for which a Party may be liable to the other Party under another agreement will not be considered to be special, indirect, incidental, or consequential damages hereunder.

## **18.3 Insurance.**

Each party shall, at its own expense, maintain in force throughout the period of this LGIA, and until released by the other Party, the following minimum insurance coverages, with insurers authorized to do business in the state where the Point of Interconnection is located:

**18.3.1** Employers' Liability and Workers' Compensation Insurance providing statutory benefits in accordance with the laws and regulations of the state in which the Point of Interconnection is located.

**18.3.2** Commercial General Liability Insurance including premises and operations, personal injury, broad form property damage, broad form blanket contractual liability coverage (including coverage for the contractual indemnification) products and completed operations coverage, coverage for explosion, collapse and underground hazards, independent contractors coverage, coverage for pollution to the extent normally available and punitive damages to the extent normally available and a cross liability endorsement, with

Proposed Effective Date: 12-5-2019

Approved Effective Date:

minimum limits of One Million Dollars (\$1,000,000) per occurrence/One Million Dollars (\$1,000,000) aggregate combined single limit for personal injury, bodily injury, including death and property damage.

- 18.3.3** Comprehensive Automobile Liability Insurance for coverage of owned and non-owned and hired vehicles, trailers or semi-trailers designed for travel on public roads, with a minimum, combined single limit of One Million Dollars (\$1,000,000) per occurrence for bodily injury, including death, and property damage.
- 18.3.4** Excess Public Liability Insurance over and above the Employers' Liability Commercial General Liability and Comprehensive Automobile Liability Insurance coverage, with a minimum combined single limit of Twenty Million Dollars (\$20,000,000) per occurrence/Twenty Million Dollars (\$20,000,000) aggregate.
- 18.3.5** The Commercial General Liability Insurance, Comprehensive Automobile Insurance and Excess Public Liability Insurance policies shall name the other Party, its parent, associated and Affiliate companies and their respective directors, officers, agents, servants and employees ("Other Party Group") as additional insured. All policies shall contain provisions whereby the insurers waive all rights of subrogation in accordance with the provisions of this LGIA against the Other Party Group and provide thirty (30) Calendar Days advance written notice to the Other Party Group prior to anniversary date of cancellation or any material change in coverage or condition.
- 18.3.6** The Commercial General Liability Insurance, Comprehensive Automobile Liability Insurance and Excess Public Liability Insurance policies shall contain provisions that specify that the policies are primary and shall apply to such extent without consideration for other policies separately carried and shall state that each insured is provided coverage as though a separate policy had been issued to each, except the insurer's liability shall not be increased beyond the amount for which the insurer would have been liable had only one insured been covered. Each Party shall be responsible for its respective deductibles or retentions.
- 18.3.7** The Commercial General Liability Insurance, Comprehensive Automobile Liability Insurance and Excess Public Liability Insurance policies, if written on a Claims First Made Basis, shall be maintained in full force and effect for two (2) years after termination of this LGIA, which coverage may be in the form of tail coverage or extended reporting period coverage if agreed by the Parties.
- 18.3.8** The requirements contained herein as to the types and limits of all insurance to be maintained by the Parties are not intended to and shall not in any manner, limit or qualify the liabilities and obligations assumed by the Parties under this LGIA.

Proposed Effective Date: 12-5-2019

- 18.3.9** Within ten (10) Calendar Days following execution of this LGIA, and as soon as practicable after the end of each fiscal year or at the renewal of the insurance policy and in any event within ninety (90) Calendar Days thereafter, each Party shall provide certification of all insurance required in this LGIA, executed by each insurer or by an authorized representative of each insurer.
- 18.3.10** In addition to the foregoing, each Party may self-insure to meet the minimum insurance requirements of Articles 18.3.2 through 18.3.8 to the extent it maintains a self-insurance program; provided that, such Party's self-insurance program meets the minimum insurance requirements of Articles 18.3.2 through 18.3.8. In the event that a Party is permitted to self-insure pursuant to this article, it shall certify to the other Party with a letter of self-insurance that it meets the requirements to self-insure and that its self-insurance program meets the minimum insurance requirements in a manner consistent with that specified in Article 18.3.9.
- 18.3.11** The Parties agree to report to each other in writing as soon as practical all accidents or occurrences resulting in injuries to any person, including death, and any property damage arising out of this LGIA.

## **Article 19. Assignment**

### **19.1 Assignment.**

This LGIA may be assigned by either Party only with the written consent of the other; provided that either Party may assign this LGIA without the consent of the other Party to any Affiliate of the assigning Party with an equal or greater credit rating and with the legal authority and operational ability to satisfy the obligations of the assigning Party under this LGIA; and provided further that Interconnection Customer shall have the right to assign this LGIA, without the consent of Transmission Provider, for collateral security purposes to aid in providing financing for the Large Generating Facility, provided that Interconnection Customer will promptly notify Transmission Provider of any such assignment. Any financing arrangement entered into by Interconnection Customer pursuant to this article will provide that prior to or upon the exercise of the secured party's, trustee's or mortgagee's assignment rights pursuant to said arrangement, the secured creditor, the trustee or mortgagee will notify Transmission Provider of the date and particulars of any such exercise of assignment right(s), including providing the Transmission Provider with proof that it meets the requirements of Articles 11.5 and 18.3. Any attempted assignment that violates this article is void and ineffective. Any assignment under this LGIA shall not relieve a Party of its obligations, nor shall a Party's obligations be enlarged, in whole or in part, by reason thereof. Where required, consent to assignment will not be unreasonably withheld, conditioned or delayed.

## **Article 20. Severability**

- 20.1 Severability.** If any provision in this LGIA is finally determined to be invalid, void or unenforceable by any court or other Governmental Authority having jurisdiction, such determination shall not invalidate, void or make unenforceable any other provision, agreement or covenant of this LGIA; provided that if Interconnection Customer (or any



Proposed Effective Date: 12-5-2019

third party, but only if such third party is not acting at the direction of Transmission Provider) seeks and obtains such a final determination with respect to any provision of the Alternate Option (Article 5.1.2), or the Negotiated Option (Article 5.1.4), then none of these provisions shall thereafter have any force or effect and the Parties' rights and obligations shall be governed solely by the Standard Option (Article 5.1.1)

## **Article 21. Comparability**

### **21.1 Comparability.**

The Parties will comply with all applicable comparability and code of conduct laws, rules and regulations, as amended from time to time.

## **Article 22. Confidentiality**

### **22.1 Confidentiality.**

Confidential Information shall include, without limitation, all information relating to a Party's technology, research and development, business affairs, and pricing, and any information supplied by either of the Parties to the other prior to the execution of this LGIA.

Information is Confidential Information only if it is clearly designated or marked in writing as confidential on the face of the document, or, if the information is conveyed orally or by inspection, if the Party providing the information orally informs the Party receiving the information that the information is confidential.

If requested by either Party, the other Party shall provide in writing, the basis for asserting that the information referred to in this Article 22 warrants confidential treatment, and the requesting Party may disclose such writing to the appropriate Governmental Authority. Each Party shall be responsible for the costs associated with affording confidential treatment to its information.

#### **22.1.1 Term.**

During the term of this LGIA, and for a period of three (3) years after the expiration or termination of this LGIA, except as otherwise provided in this Article 22, each Party shall hold in confidence and shall not disclose to any person Confidential Information.

#### **22.1.2 Scope.**

Confidential Information shall not include information that the receiving Party can demonstrate: (1) is generally available to the public other than as a result of a disclosure by the receiving Party; (2) was in the lawful possession of the receiving Party on a non-confidential basis before receiving it from the disclosing Party; (3) was supplied to the receiving Party without restriction by a third party, who, to the knowledge of the receiving Party after due inquiry, was under no obligation to the disclosing Party to keep such information confidential; (4) was independently developed by the receiving Party without reference to Confidential Information of the disclosing Party; (5) is, or becomes, publicly known, through no wrongful act or omission of the

receiving Party or Breach of this LGIA; or (6) is required, in accordance with Article 22.1.7 of the LGIA, Order of Disclosure, to be disclosed by any Governmental Authority or is otherwise required to be disclosed by law or subpoena, or is necessary in any legal proceeding establishing rights and obligations under this LGIA. Information designated as Confidential Information will no longer be deemed confidential if the Party that designated the information as confidential notifies the other Party that it no longer is confidential.

**22.1.3 Release of Confidential Information.**

Neither Party shall release or disclose Confidential Information to any other person, except to its Affiliates (limited by the Standards of Conduct requirements), subcontractors, employees, consultants, or to parties who may be or considering providing financing to or equity participation with Interconnection Customer, or to potential purchasers or assignees of Interconnection Customer, on a need-to-know basis in connection with this LGIA, unless such person has first been advised of the confidentiality provisions of this Article 22 and has agreed to comply with such provisions. Notwithstanding the foregoing, a Party providing Confidential Information to any person shall remain primarily responsible for any release of Confidential Information in contravention of this Article 22.

**22.1.4 Rights.**

Each Party retains all rights, title, and interest in the Confidential Information that each Party discloses to the other Party. The disclosure by each Party to the other Party of Confidential Information shall not be deemed a waiver by either Party or any other person or entity of the right to protect the Confidential Information from public disclosure.

**22.1.5 No Warranties.**

By providing Confidential Information, neither Party makes any warranties or representations as to its accuracy or completeness. In addition, by supplying Confidential Information, neither Party obligates itself to provide any particular information or Confidential Information to the other Party nor to enter into any further agreements or proceed with any other relationship or joint venture.

**22.1.6 Standard of Care.**

Each Party shall use at least the same standard of care to protect Confidential Information it receives as it uses to protect its own Confidential Information from unauthorized disclosure, publication or dissemination. Each Party may use Confidential Information solely to fulfill its obligations to the other Party under this LGIA or its regulatory requirements.

**22.1.7 Order of Disclosure.**

If a court or a Government Authority or entity with the right, power, and apparent authority to do so requests or requires either Party, by subpoena, oral deposition, interrogatories, requests for production of documents, administrative order, or otherwise, to disclose Confidential Information, that

Proposed Effective Date: 12-5-2019

Approved Effective Date:

Party shall provide the other Party with prompt notice of such request(s) or requirement(s) so that the other Party may seek an appropriate protective order or waive compliance with the terms of this LGIA. Notwithstanding the absence of a protective order or waiver, the Party may disclose such Confidential Information which, in the opinion of its counsel, the Party is legally compelled to disclose. Each Party will use Reasonable Efforts to obtain reliable assurance that confidential treatment will be accorded any Confidential Information so furnished.

**22.1.8 Termination of Agreement.**

Upon termination of this LGIA for any reason, each Party shall, within ten (10) Calendar Days of receipt of a written request from the other Party, use Reasonable Efforts to destroy, erase, or delete (with such destruction, erasure, and deletion certified in writing to the other Party) or return to the other Party, without retaining copies thereof, any and all written or electronic Confidential Information received from the other Party.

**22.1.9 Remedies.**

The Parties agree that monetary damages would be inadequate to compensate a Party for the other Party's Breach of its obligations under this Article 22. Each Party accordingly agrees that the other Party shall be entitled to equitable relief, by way of injunction or otherwise, if the first Party Breaches or threatens to Breach its obligations under this Article 22, which equitable relief shall be granted without bond or proof of damages, and the receiving Party shall not plead in defense that there would be an adequate remedy at law. Such remedy shall not be deemed an exclusive remedy for the Breach of this Article 22, but shall be in addition to all other remedies available at law or in equity. The Parties further acknowledge and agree that the covenants contained herein are necessary for the protection of legitimate business interests and are reasonable in scope. No Party, however, shall be liable for indirect, incidental, or consequential or punitive damages of any nature or kind resulting from or arising in connection with this Article 22.

**22.1.10 Disclosure to FERC, its Staff, or a State.**

Notwithstanding anything in this Article 22 to the contrary, and pursuant to 18 CFR section 1b.20, if FERC or its staff, during the course of an investigation or otherwise, requests information from one of the Parties that is otherwise required to be maintained in confidence pursuant to this LGIA, the Party shall provide the requested information to FERC or its staff, within the time provided for in the request for information. In providing the information to FERC or its staff, the Party must, consistent with 18 CFR section 388.112, request that the information be treated as confidential and non-public by FERC and its staff and that the information be withheld from public disclosure. Parties are prohibited from notifying the other Party to this LGIA prior to the release of the Confidential Information to FERC or its staff. The Party shall notify the other Party to the LGIA when it is notified by FERC or its staff that a request to release Confidential Information has been received by FERC, at which time either of the Parties may respond before such

Proposed Effective Date: 12-5-2019

information would be made public, pursuant to 18 CFR section 388.112. Requests from a state regulatory body conducting a confidential investigation shall be treated in a similar manner if consistent with the applicable state rules and regulations.

- 22.1.11** Subject to the exception in Article 22.1.10, any information that a Party claims is competitively sensitive, commercial or financial information under this LGIA ("Confidential Information") shall not be disclosed by the other Party to any person not employed or retained by the other Party, except to the extent disclosure is (i) required by law; (ii) reasonably deemed by the disclosing Party to be required to be disclosed in connection with a dispute between or among the Parties, or the defense of litigation or dispute; (iii) otherwise permitted by consent of the other Party, such consent not to be unreasonably withheld; or (iv) necessary to fulfill its obligations under this LGIA or as a transmission service provider or a Control Area operator including disclosing the Confidential Information to an RTO or ISO or to a regional or national reliability organization. The Party asserting confidentiality shall notify the other Party in writing of the information it claims is confidential. Prior to any disclosures of the other Party's Confidential Information under this subparagraph, or if any third party or Governmental Authority makes any request or demand for any of the information described in this subparagraph, the disclosing Party agrees to promptly notify the other Party in writing and agrees to assert confidentiality and cooperate with the other Party in seeking to protect the Confidential Information from public disclosure by confidentiality agreement, protective order or other reasonable measures.

## **Article 23. Environmental Releases**

- 23.1** Each Party shall notify the other Party, first orally and then in writing, of the release of any Hazardous Substances, any asbestos or lead abatement activities, or any type of remediation activities related to the Large Generating Facility or the Interconnection Facilities, each of which may reasonably be expected to affect the other Party. The notifying Party shall: (i) provide the notice as soon as practicable, provided such Party makes a good faith effort to provide the notice no later than twenty-four hours after such Party becomes aware of the occurrence; and (ii) promptly furnish to the other Party copies of any publicly available reports filed with any Governmental Authorities addressing such events.

## **Article 24. Information Requirements**

### **24.1 Information Acquisition.**

Transmission Provider and Interconnection Customer shall submit specific information regarding the electrical characteristics of their respective facilities to each other as described below and in accordance with Applicable Reliability Standards.

### **24.2 Information Submission by Transmission Provider.**

The initial information submission by Transmission Provider shall occur no later than one hundred eighty (180) Calendar Days prior to Trial Operation and shall include

Transmission System information necessary to allow Interconnection Customer to select equipment and meet any system protection and stability requirements, unless otherwise agreed to by the Parties. On a monthly basis Transmission Provider shall provide Interconnection Customer a status report on the construction and installation of Transmission Provider's Interconnection Facilities and Network Upgrades, including, but not limited to, the following information: (1) progress to date; (2) a description of the activities since the last report (3) a description of the action items for the next period; and (4) the delivery status of equipment ordered.

#### **24.3 Updated Information Submission by Interconnection Customer.**

The updated information submission by Interconnection Customer, including manufacturer information, shall occur no later than one-hundred eighty (180) Calendar Days prior to the Trial Operation. Interconnection Customer shall submit a completed copy of the Large Generating Facility data requirements contained in Appendix 1 to the Revised LGIP. It shall also include any additional information provided to Transmission Provider for the Definitive Interconnection System Impact Study and Interconnection Facilities Study. Information in this submission shall be the most current Large Generating Facility design or expected performance data. Information submitted for stability models shall be compatible with Transmission Provider standard models. If there is no compatible model, Interconnection Customer will work with a consultant mutually agreed to by the Parties to develop and supply a standard model and associated information.

If Interconnection Customer's data is materially different from what was originally provided to Transmission Provider pursuant to the Interconnection Study Agreement between Transmission Provider and Interconnection Customer, then Transmission Provider will conduct appropriate studies to determine the impact on Transmission Provider Transmission System based on the actual data submitted pursuant to this Article 24.3. The Interconnection Customer shall not begin Trial Operation until such studies are completed.

#### **24.4 Information Supplementation.**

Prior to the Operation Date, the Parties shall supplement their information submissions described above in this Article 24 with any and all "as-built" Large Generating Facility information or "as-tested" performance information that differs from the initial submissions or, alternatively, written confirmation that no such differences exist. The Interconnection Customer shall conduct tests on the Large Generating Facility as required by Good Utility Practice such as an open circuit "step voltage" test on the Large Generating Facility to verify proper operation of the Large Generating Facility's automatic voltage regulator.

Unless otherwise agreed, the test conditions shall include: (1) Large Generating Facility at synchronous speed; (2) automatic voltage regulator on and in voltage control mode; and (3) a five percent change in Large Generating Facility terminal voltage initiated by a change in the voltage regulators reference voltage. Interconnection Customer shall provide validated test recordings showing the responses of Large Generating Facility terminal and field voltages. In the event that direct recordings of these voltages is impractical, recordings of other voltages or currents that mirror the response of the Large

Proposed Effective Date: 12-5-2019

Generating Facility's terminal or field voltage are acceptable if information necessary to translate these alternate quantities to actual Large Generating Facility terminal or field voltages is provided. Large Generating Facility testing shall be conducted and results provided to Transmission Provider for each individual generating unit in a station.

Subsequent to the Operation Date, Interconnection Customer shall provide Transmission Provider any information changes due to equipment replacement, repair, or adjustment. Transmission Provider shall provide Interconnection Customer any information changes due to equipment replacement, repair or adjustment in the directly connected substation or any adjacent Transmission Provider-owned substation that may affect Interconnection Customer's Interconnection Facilities equipment ratings, protection or operating requirements. The Parties shall provide such information no later than thirty (30) Calendar Days after the date of the equipment replacement, repair or adjustment.

## **Article 25. Information Access and Audit Rights**

### **25.1 Information Access.**

Each Party (the "disclosing Party") shall make available to the other Party information that is in the possession of the disclosing Party and is necessary in order for the other Party to: (i) verify the costs incurred by the disclosing Party for which the other Party is responsible under this LGIA; and (ii) carry out its obligations and responsibilities under this LGIA. The Parties shall not use such information for purposes other than those set forth in this Article 25.1 and to enforce their rights under this LGIA.

### **25.2 Reporting of Non-Force Majeure Events.**

Each Party (the "notifying Party") shall notify the other Party when the notifying Party becomes aware of its inability to comply with the provisions of this LGIA for a reason other than a Force Majeure event. The Parties agree to cooperate with each other and provide necessary information regarding such inability to comply, including the date, duration, reason for the inability to comply, and corrective actions taken or planned to be taken with respect to such inability to comply. Notwithstanding the foregoing, notification, cooperation or information provided under this article shall not entitle the Party receiving such notification to allege a cause for anticipatory breach of this LGIA.

### **25.3 Audit Rights.**

Subject to the requirements of confidentiality under Article 22 of this LGIA, each Party shall have the right, during normal business hours, and upon prior reasonable notice to the other Party, to audit at its own expense the other Party's accounts and records pertaining to either Party's performance or either Party's satisfaction of obligations under this LGIA. Such audit rights shall include audits of the other Party's costs, calculation of invoiced amounts, Transmission Provider's efforts to allocate responsibility for the provision of reactive support to the Transmission System, Transmission Provider's efforts to allocate responsibility for interruption or reduction of generation on the Transmission System, and each Party's actions in an Emergency Condition. Any audit authorized by this article shall be performed at the offices where such accounts and records are maintained and shall be limited to those portions of such accounts and records that relate to each Party's performance and satisfaction of obligations under this

Proposed Effective Date: 12-5-2019

LGIA. Each Party shall keep such accounts and records for a period equivalent to the audit rights periods described in Article 25.4.

## **25.4 Audit Rights Periods.**

### **25.4.1 Audit Rights Period for Construction-Related Accounts and Records.**

Accounts and records related to the design, engineering, procurement, and construction of Transmission Provider's Interconnection Facilities and Network Upgrades shall be subject to audit for a period of twenty-four months following Transmission Provider's issuance of a final invoice in accordance with Article 12.2.

### **25.4.2 Audit Rights Period for All Other Accounts and Records.**

Accounts and records related to either Party's performance or satisfaction of all obligations under this LGIA other than those described in Article 25.4.1 shall be subject to audit as follows: (i) for an audit relating to cost obligations, the applicable audit rights period shall be twenty-four months after the auditing Party's receipt of an invoice giving rise to such cost obligations; and (ii) for an audit relating to all other obligations, the applicable audit rights period shall be twenty-four months after the event for which the audit is sought.

## **25.5 Audit Results.**

If an audit by a Party determines that an overpayment or an underpayment has occurred, a notice of such overpayment or underpayment shall be given to the other Party together with those records from the audit which support such determination.

## **Article 26. Subcontractors**

### **26.1 General.**

Nothing in this LGIA shall prevent a Party from utilizing the services of any subcontractor as it deems appropriate to perform its obligations under this LGIA; provided, however, that each Party shall require its subcontractors to comply with all applicable terms and conditions of this LGIA in providing such services and each Party shall remain primarily liable to the other Party for the performance of such subcontractor.

### **26.2 Responsibility of Principal.**

The creation of any subcontract relationship shall not relieve the hiring Party of any of its obligations under this LGIA. The hiring Party shall be fully responsible to the other Party for the acts or omissions of any subcontractor the hiring Party hires as if no subcontract had been made; provided, however, that in no event shall Transmission Provider be liable for the actions or inactions of Interconnection Customer or its subcontractors with respect to obligations of Interconnection Customer under Article 5 of this LGIA. Any applicable obligation imposed by this LGIA upon the hiring Party shall be equally binding upon, and shall be construed as having application to, any subcontractor of such Party.

### **26.3 No Limitation by Insurance.**

Proposed Effective Date: 12-5-2019

The obligations under this Article 26 will not be limited in any way by any limitation of subcontractor's insurance.

## **Article 27. Disputes**

### **27.1 Submission.**

In the event either Party has a dispute, or asserts a claim, that arises out of or in connection with this LGIA or its performance, such Party (the "disputing Party") shall provide the other Party with written notice of the dispute or claim ("Notice of Dispute"). Such dispute or claim shall be referred to a designated senior representative of each Party for resolution on an informal basis as promptly as practicable after receipt of the Notice of Dispute by the other Party. In the event the designated representatives are unable to resolve the claim or dispute through unassisted or assisted negotiations within thirty (30) Calendar Days of the other Party's receipt of the Notice of Dispute, such claim or dispute may, upon mutual agreement of the Parties, be submitted to arbitration and resolved in accordance with the arbitration procedures set forth below. In the event the Parties do not agree to submit such claim or dispute to arbitration, each Party may exercise whatever rights and remedies it may have in equity or at law consistent with the terms of this LGIA.

### **27.2 External Arbitration Procedures.**

Any arbitration initiated under this LGIA shall be conducted before a single neutral arbitrator appointed by the Parties. If the Parties fail to agree upon a single arbitrator within ten (10) Calendar Days of the submission of the dispute to arbitration, each Party shall choose one arbitrator who shall sit on a three-member arbitration panel. The two arbitrators so chosen shall within twenty (20) Calendar Days select a third arbitrator to chair the arbitration panel. In either case, the arbitrators shall be knowledgeable in electric utility matters, including electric transmission and bulk power issues, and shall not have any current or past substantial business or financial relationships with any party to the arbitration (except prior arbitration). The arbitrator(s) shall provide each of the Parties an opportunity to be heard and, except as otherwise provided herein, shall conduct the arbitration in accordance with the Commercial Arbitration Rules of the American Arbitration Association ("Arbitration Rules") and any applicable FERC regulations or RTO rules; provided, however, in the event of a conflict between the Arbitration Rules and the terms of this Article 27, the terms of this Article 27 shall prevail.

### **27.3 Arbitration Decisions.**

Unless otherwise agreed by the Parties, the arbitrator(s) shall render a decision within ninety (90) Calendar Days of appointment and shall notify the Parties in writing of such decision and the reasons therefor. The arbitrator(s) shall be authorized only to interpret and apply the provisions of this LGIA and shall have no power to modify or change any provision of this Agreement in any manner. The decision of the arbitrator(s) shall be final and binding upon the Parties, and judgment on the award may be entered in any court having jurisdiction. The decision of the arbitrator(s) may be appealed solely on the grounds that the conduct of the arbitrator(s), or the decision itself, violated the standards set forth in the Federal Arbitration Act or the Administrative Dispute Resolution Act. The final decision of the arbitrator must also be filed with FERC if it affects jurisdictional rates, terms and conditions of service, Interconnection Facilities, or Network Upgrades.



Proposed Effective Date: 12-5-2019

**27.4 Costs.**

Each Party shall be responsible for its own costs incurred during the arbitration process and for the following costs, if applicable: (1) the cost of the arbitrator chosen by the Party to sit on the three member panel and one half of the cost of the third arbitrator chosen; or (2) one-half the cost of the single arbitrator jointly chosen by the Parties.

**Article 28. Representations, Warranties, and Covenants**

**28.1 General.**

Each Party makes the following representations, warranties and covenants:

**28.1.1 Good Standing.**

Such Party is duly organized, validly existing and in good standing under the laws of the state in which it is organized, formed, or incorporated, as applicable; that it is qualified to do business in the state or states in which the Large Generating Facility, Interconnection Facilities and Network Upgrades owned by such Party, as applicable, are located; and that it has the corporate power and authority to own its properties, to carry on its business as now being conducted and to enter into this LGIA and carry out the transactions contemplated hereby and perform and carry out all covenants and obligations on its part to be performed under and pursuant to this LGIA.

**28.1.2 Authority.**

Such Party has the right, power and authority to enter into this LGIA, to become a Party hereto and to perform its obligations hereunder. This LGIA is a legal, valid and binding obligation of such Party, enforceable against such Party in accordance with its terms, except as the enforceability thereof may be limited by applicable bankruptcy, insolvency, reorganization or other similar laws affecting creditors' rights generally and by general equitable principles (regardless of whether enforceability is sought in a proceeding in equity or at law).

**28.1.3 No Conflict.**

The execution, delivery and performance of this LGIA does not violate or conflict with the organizational or formation documents, or bylaws or operating agreement, of such Party, or any judgment, license, permit, order, material agreement or instrument applicable to or binding upon such Party or any of its assets.

**28.1.4 Consent and Approval.**

Such Party has sought or obtained, or, in accordance with this LGIA will seek or obtain, each consent, approval, authorization, order, or acceptance by any Governmental Authority in connection with the execution, delivery and performance of this LGIA, and it will provide to any Governmental Authority notice of any actions under this LGIA that are required by Applicable Laws and Regulations

Proposed Effective Date: 12-5-2019

## **Article 29. Joint Operating Committee**

### **29.1 Joint Operating Committee.**

Except in the case of ISOs and RTOs, Transmission Provider shall constitute a Joint Operating Committee to coordinate operating and technical considerations of Interconnection Service. At least six (6) months prior to the expected Initial Synchronization Date, Interconnection Customer and Transmission Provider shall each appoint one representative and one alternate to the Joint Operating Committee. Each Interconnection Customer shall notify Transmission Provider of its appointment in writing. Such appointments may be changed at any time by similar notice. The Joint Operating Committee shall meet as necessary, but not less than once each calendar year, to carry out the duties set forth herein. The Joint Operating Committee shall hold a meeting at the request of either Party, at a time and place agreed upon by the representatives. The Joint Operating Committee shall perform all of its duties consistent with the provisions of this LGIA. Each Party shall cooperate in providing to the Joint Operating Committee all information required in the performance of the Joint Operating Committee's duties. All decisions and agreements, if any, made by the Joint Operating Committee, shall be evidenced in writing. The duties of the Joint Operating Committee shall include the following:

- 29.1.1** Establish data requirements and operating record requirements.
- 29.1.2** Review the requirements, standards, and procedures for data acquisition equipment, protective equipment, and any other equipment or software.
- 29.1.3** Annually review the one (1) year forecast of maintenance and planned outage schedules of Transmission Provider's and Interconnection Customer's facilities at the Point of Interconnection.
- 29.1.4** Coordinate the scheduling of maintenance and planned outages on the Interconnection Facilities, the Large Generating Facility and other facilities that impact the normal operation of the interconnection of the Large Generating Facility to the Transmission System.
- 29.1.5** Ensure that information is being provided by each Party regarding equipment availability.
- 29.1.6** Perform such other duties as may be conferred upon it by mutual agreement of the Parties.

## **Article 30. Miscellaneous**

### **30.1 Binding Effect.**

This LGIA and the rights and obligations hereof, shall be binding upon and shall inure to the benefit of the successors and assigns of the Parties hereto.

### **30.2 Conflicts.**

Proposed Effective Date: 12-5-2019

In the event of a conflict between the body of this LGIA and any attachment, appendices or exhibits hereto, the terms and provisions of the body of this LGIA shall prevail and be deemed the final intent of the Parties.

### **30.3 Rules of Interpretation.**

This LGIA, unless a clear contrary intention appears, shall be construed and interpreted as follows: (1) the singular number includes the plural number and vice versa; (2) reference to any person includes such person's successors and assigns but, in the case of a Party, only if such successors and assigns are permitted by this LGIA, and reference to a person in a particular capacity excludes such person in any other capacity or individually; (3) reference to any agreement (including this LGIA), document, instrument or tariff means such agreement, document, instrument, or tariff as amended or modified and in effect from time to time in accordance with the terms thereof and, if applicable, the terms hereof; (4) reference to any Applicable Laws and Regulations means such Applicable Laws and Regulations as amended, modified, codified, or reenacted, in whole or in part, and in effect from time to time, including, if applicable, rules and regulations promulgated thereunder; (5) unless expressly stated otherwise, reference to any Article, Section or Appendix means such Article of this LGIA or such Appendix to this LGIA, or such Section to the Revised LGIP or such Appendix to the Revised LGIP, as the case may be; (6) "hereunder", "hereof", "herein", "hereto" and words of similar import shall be deemed references to this LGIA as a whole and not to any particular Article or other provision hereof or thereof; (7) "including" (and with correlative meaning "include") means including without limiting the generality of any description preceding such term; and (8) relative to the determination of any period of time, "from" means "from and including", "to" means "to but excluding" and "through" means "through and including".

### **30.4 Entire Agreement.**

This LGIA, including all Appendices and Schedules attached hereto, constitutes the entire agreement between the Parties with reference to the subject matter hereof, and supersedes all prior and contemporaneous understandings or agreements, oral or written, between the Parties with respect to the subject matter of this LGIA. There are no other agreements, representations, warranties, or covenants which constitute any part of the consideration for, or any condition to, either Party's compliance with its obligations under this LGIA.

### **30.5 No Third Party Beneficiaries.**

This LGIA is not intended to and does not create rights, remedies, or benefits of any character whatsoever in favor of any persons, corporations, associations, or entities other than the Parties, and the obligations herein assumed are solely for the use and benefit of the Parties, their successors in interest and, where permitted, their assigns.

### **30.6 Waiver.**

The failure of a Party to this LGIA to insist, on any occasion, upon strict performance of any provision of this LGIA will not be considered a waiver of any obligation, right, or duty of, or imposed upon, such Party.

Proposed Effective Date: 12-5-2019

Any waiver at any time by either Party of its rights with respect to this LGIA shall not be deemed a continuing waiver or a waiver with respect to any other failure to comply with any other obligation, right, duty of this LGIA. Termination or Default of this LGIA for any reason by Interconnection Customer shall not constitute a waiver of Interconnection Customer's legal rights to obtain an interconnection from Transmission Provider. Any waiver of this LGIA shall, if requested, be provided in writing.

**30.7 Headings.**

The descriptive headings of the various Articles of this LGIA have been inserted for convenience of reference only and are of no significance in the interpretation or construction of this LGIA.

**30.8 Multiple Counterparts.**

This LGIA may be executed in two or more counterparts, each of which is deemed an original but all constitute one and the same instrument.

**30.9 Amendment.**

The Parties may by mutual agreement amend this LGIA by a written instrument duly executed by the Parties.

**30.10 Modification by the Parties.**

The Parties may by mutual agreement amend the Appendices to this LGIA by a written instrument duly executed by the Parties. Such amendment shall become effective and a part of this LGIA upon satisfaction of all Applicable Laws and Regulations.

**30.11 Reservation of Rights.**

Transmission Provider shall have the right to make a unilateral filing with FERC to modify this LGIA with respect to any rates, terms and conditions, charges, classifications of service, rule or regulation under section 205 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder, and Interconnection Customer shall have the right to make a unilateral filing with FERC to modify this LGIA pursuant to section 206 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder; provided that each Party shall have the right to protest any such filing by the other Party and to participate fully in any proceeding before FERC in which such modifications may be considered. Nothing in this LGIA shall limit the rights of the Parties or of FERC under sections 205 or 206 of the Federal Power Act and FERC's rules and regulations thereunder, except to the extent that the Parties otherwise mutually agree as provided herein.

**30.12 No Partnership.**

This LGIA shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership between the Parties or to impose any partnership obligation or partnership liability upon either Party. Neither Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, the other Party.

**IN WITNESS WHEREOF**, the Parties have executed this LGIA in duplicate originals, each of which shall constitute and be an original effective Agreement between the Parties.

Proposed Effective Date: 12-5-2019

Approved Effective Date:

**[Insert name of Transmission Provider or Transmission Owner, if applicable]**

By: \_\_\_\_\_ By: \_\_\_\_\_

Title: \_\_\_\_\_ Title: \_\_\_\_\_

Date: \_\_\_\_\_ Date: \_\_\_\_\_

**[Insert name of Interconnection Customer]**

By: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

## **Appendix A to LGIA**

### **Interconnection Facilities, Network Upgrades and Distribution Upgrades**

#### **1. Interconnection Facilities:**

**(a) [insert Interconnection Customer's Interconnection Facilities]:**

**(b) [insert Transmission Provider's Interconnection Facilities]:**

#### **2. Network Upgrades:**

**(a) [insert Stand Alone Network Upgrades]:**

**(b) [insert Other Network Upgrades]:**

#### **3. Distribution Upgrades:**

## **Appendix B to LGIA**

### **LGIA Milestones**

**Appendix C to LGIA**

**Interconnection Details**



Proposed Effective Date: 12-5-2019

Approved Effective Date:

## **Appendix D to LGIA**

### **Security Arrangements Details**

Infrastructure security of Transmission System equipment and operations and control hardware and software is essential to ensure day-to-day Transmission System reliability and operational security. FERC will expect all Transmission Providers, market participants, and Interconnection Customers interconnected to the Transmission System to comply with the recommendations offered by the President's Critical Infrastructure Protection Board and, eventually, best practice recommendations from the electric reliability authority. All public utilities will be expected to meet basic standards for system infrastructure and operational security, including physical, operational, and cyber-security practices.

Proposed Effective Date: 12-5-2019

Approved Effective Date:

**Appendix E to LGIA**  
**Commercial Operation Date**

This Appendix E is a part of the LGIA between Transmission Provider and Interconnection Customer.

**[Date]**

**[Transmission Provider Address]**

Re: \_\_\_\_\_ Large Generating Facility

Dear: \_\_\_\_\_

On **[Date]** **[Interconnection Customer]** has completed Trial Operation of Unit No. \_\_\_\_\_. This letter confirms that **[Interconnection Customer]** commenced Commercial Operation of Unit No. \_\_\_\_\_ at the Large Generating Facility, effective as of **[Date plus one day]**.

Thank you.

**[Signature]**

**[Interconnection Customer Representative]**

## **Appendix F to LGIA**

### **Addresses for Delivery of Notices and Billings**

#### **Notices:.**

Transmission Provider:

[To be supplied.]

Interconnection Customer:

[To be supplied.]

#### **Billings and Payments:**

Transmission Provider:

[To be supplied.]

Interconnection Customer:

[To be supplied.]

#### **Alternative Forms of Delivery of Notices (telephone, facsimile or email):**

Transmission Provider:

[To be supplied.]

Interconnection Customer:

[To be supplied.]

Proposed Effective Date: 12-5-2019

## **APPENDIX G**

### **INTERCONNECTION REQUIREMENTS FOR A WIND GENERATING PLANT**

Appendix G sets forth requirements and provisions specific to a wind generating plant. All other requirements of this LGIA continue to apply to wind generating plant interconnections.

#### **A. Technical Standards Applicable to a Wind Generating Plant**

##### **i. Low Voltage Ride-Through (LVRT) Capability**

A wind generating plant shall be able to remain online during voltage disturbances up to the time periods and associated voltage levels set forth in the standard below. The LVRT standard provides for a transition period standard and a post-transition period standard.

##### **Transition Period LVRT Standard**

The transition period standard applies to wind generating plants subject to FERC Order 661 that have either: (i) interconnection agreements signed and filed with the Commission, filed with the Commission in unexecuted form, or filed with the Commission as non-conforming agreements between January 1, 2006 and December 31, 2006, with a scheduled in-service date no later than December 31, 2007, or (ii) wind generating turbines subject to a wind turbine procurement contract executed prior to December 31, 2005, for delivery through 2007.

1. Wind generating plants are required to remain in-service during three-phase faults with normal clearing (which is a time period of approximately 4 – 9 cycles) and single line to ground faults with delayed clearing, and subsequent post-fault voltage recovery to prefault voltage unless clearing the fault effectively disconnects the generator from the system. The clearing time requirement for a three-phase fault will be specific to the wind generating plant substation location, as determined by and documented by Transmission Provider. The maximum clearing time the wind generating plant shall be required to withstand for a three-phase fault shall be 9 cycles at a voltage as low as 0.15 p.u., as measured at the high side of the wind generating plant step-up transformer (i.e. the transformer that steps the voltage up to the transmission interconnection voltage or “GSU”), after which, if the fault remains following the location-specific normal clearing time for three-phase faults, the wind generating plant may disconnect from the transmission system.
2. This requirement does not apply to faults that would occur between the wind generator terminals and the high side of the GSU or to faults that would result in a voltage lower than 0.15 per unit on the high side of the GSU serving the facility.
3. Wind generating plants may be tripped after the fault period if this action is intended as part of a special protection system.
4. Wind generating plants may meet the LVRT requirements of this standard by the performance of the generators or by installing additional equipment (e.g., Static VAR Compensator, etc.) within the wind generating plant or by a combination of generator performance and additional equipment.

Proposed Effective Date: 12-5-2019

5. Existing individual generator units that are, or have been, interconnected to the network at the same location at the effective date of the Appendix G LVRT Standard are exempt from meeting the Appendix G LVRT Standard for the remaining life of the existing generation equipment. Existing individual generator units that are replaced are required to meet the Appendix G LVRT Standard.

### **Post-transition Period LVRT Standard**

All wind generating plants subject to FERC Order No. 661 and not covered by the transition period described above must meet the following requirements:

1. Wind generating plants are required to remain in-service during three-phase faults with normal clearing (which is a time period of approximately 4 – 9 cycles) and single line to ground faults with delayed clearing, and subsequent post-fault voltage recovery to prefault voltage unless clearing the fault effectively disconnects the generator from the system. The clearing time requirement for a three-phase fault will be specific to the wind generating plant substation location, as determined by and documented by Transmission Provider. The maximum clearing time the wind generating plant shall be required to withstand for a three-phase fault shall be nine (9) cycles after which, if the fault remains following the location-specific normal clearing time for three-phase faults, the wind generating plant may disconnect from the transmission system. A wind generating plant shall remain interconnected during such a fault on the transmission system for a voltage level as low as zero (0) volts, as measured at the high voltage side of the wind GSU.
2. This requirement does not apply to faults that would occur between the wind generator terminals and the high side of the GSU.
3. Wind generating plants may be tripped after the fault period if this action is intended as part of a special protection system.
4. Wind generating plants may meet the LVRT requirements of this standard by the performance of the generators or by installing additional equipment (e.g., Static VAR Compensator) within the wind generating plant or by a combination of generator performance and additional equipment.
5. Existing individual generator units that are, or have been, interconnected to the network at the same location at the effective date of the Appendix G LVRT Standard are exempt from meeting the Appendix G LVRT Standard for the remaining life of the existing generation equipment. Existing individual generator units that are replaced are required to meet the Appendix G LVRT Standard.

### **ii. Power Factor Design Criteria (Reactive Power)**

The following reactive power requirements apply only to a newly interconnecting wind generating plant that has executed a Facilities Study Agreement as of the effective date of the Final Rule establishing the reactive power requirements for non-synchronous generators in Article 9.6.1 of this LGIA (Order No. 827).<sup>2</sup> A wind generating plant to

Proposed Effective Date: 12-5-2019

which this provision applies shall maintain a power factor within the range of 0.95 leading to 0.95 lagging, measured at the Point of Interconnection as defined in this LGIA, if Transmission Provider's System Impact Study shows that such a requirement is necessary to ensure safety or reliability. The power factor range standard can be met by using, for example, power electronics designed to supply this level of reactive capability (taking into account any limitations due to voltage level, real power output, etc.) or fixed and switched capacitors if agreed to by Transmission Provider, or a combination of the two. The Interconnection Customer shall not disable power factor equipment while the wind plant is in operation. Wind plants shall also be able to provide sufficient dynamic voltage support in lieu of the power system stabilizer and automatic voltage regulation at the generator excitation system if the System Impact Study shows this to be required for system safety or reliability.

- [2] If identified in the System Impact Study as necessary to ensure safety or reliability, existing Generating Facilities being upgraded that require a new interconnection request are subject to this reactive power requirement.

**iii. Supervisory Control and Data Acquisition (SCADA) Capability**

The wind plant shall provide SCADA capability to transmit data and receive instructions from Transmission Provider to protect system reliability. Transmission Provider and the wind plant Interconnection Customer shall determine what SCADA information is essential for the proposed wind plant, taking into account the size of the plant and its characteristics, location, and importance in maintaining generation resource adequacy and transmission system reliability in its area.

Proposed Effective Date: 12-5-2019

## **APPENDIX 6.1 to Revised LGIP**

### **INTERCONNECTION PROCEDURES FOR A WIND GENERATING PLANT**

Appendix G to the LGIA sets forth procedures specific to a wind generating plant. All other requirements of this Revised LGIP continue to apply to wind generating plant interconnections.

#### **A. Special Procedures Applicable to Wind Generators**

The wind plant Interconnection Customer, in completing the Interconnection Request required by section 3.4 of this Revised LGIP, may provide to Transmission Provider a set of preliminary electrical design specifications depicting the wind plant as a single equivalent generator. Upon satisfying these and other applicable Interconnection Request conditions, the wind plant may enter the Queue and receive the base case data as provided for in this Revised LGIP.

No later than six months after submitting an Interconnection Request completed in this manner, the wind plant Interconnection Customer must submit completed detailed electrical design specifications and other data (including collector system layout data) needed to allow Transmission Provider to complete the System Impact Study.

## **ATTACHMENT N**

### **Standard Large Generator Interconnection Procedures – Revised (“Revised LGIP”)**

**Applicable to Generating Facilities that exceed 20 MWs connecting to the Transmission System**

**of**

**Public Service Company of Colorado**

**Note: For further information regarding a large generation interconnection to the transmission system of any of the Xcel Energy Operating Companies, please consult the currently effective “Interconnection Guidelines For Transmission Interconnected Producer-Owned Generation Greater than 20 MW” available at the Xcel Energy Inc. website**



## **TABLE OF CONTENTS**

### **Section 1. Definitions**

### **Section 2. Scope and Application**

- 2.1 Application of Revised LGIP.**
- 2.2 Comparability.**
- 2.3 Base Case Data.**
- 2.4 No Applicability to Transmission Service.**

### **Section 3. Interconnection Requests.**

- 3.1 General.**
- 3.2 Identification of Types of Interconnection Services.**
  - 3.2.1 Energy Resource Interconnection Service.**
    - 3.2.1.1 The Product.**
    - 3.2.1.2 The Study.**
  - 3.2.2 Network Resource Interconnection Service.**
    - 3.2.2.1 The Product.**
    - 3.2.2.2 The Study.**
- 3.3 Utilization of Surplus Interconnection Service.**
  - 3.3.1 Surplus Interconnection Service Requests.**
  - 3.3.2 Process for Evaluating Surplus Interconnection Requests and Obtaining Interconnection Service Requests**
- 3.4 Valid Interconnection Request**
  - 3.4.1 Initiating an Interconnection Request.**
  - 3.4.2 Acknowledgment of Interconnection Request.**
  - 3.4.3 Deficiencies in Interconnection Request.**
  - 3.4.4 Scoping Meeting.**
- 3.5 OASIS Posting.**
  - 3.5.1 OASIS Posting**
    - 3.5.1.1 Definitive Study Phase 1 Processing Time.**
    - 3.5.1.2 Definitive Interconnection System Impact Studies Processing Time.**
    - 3.5.1.3 Interconnection Facilities Studies Processing Time.**
    - 3.5.1.4 Interconnection Service Requests Withdrawn from Interconnection Queue.**
  - 3.5.2 Requirement to Post Interconnection Study Metrics**
- 3.6 Coordination with Affected Systems.**
- 3.7 Withdrawal.**
  - 3.7.1 Withdrawal Penalty**
    - 3.7.1.1 Calculation of the Withdrawal Penalty**
    - 3.7.1.2 Distribution of the Withdrawal Penalty**
- 3.8 Identification of Contingent Facilities.**
  - 3.8.1 Method for Identifying Contingent Facilities**

### **Section 4. Interconnection Request Evaluation Process.**

- 4.1 Queue Position.
  - 4.1.1 Assignment of Queue Position
  - 4.1.2 Higher Queue Position
- 4.2 General Study Process
  - 4.2.1 Initiation of a Definitive Interconnection System Impact Study Cluster.
  - 4.2.2 Initiation of a Resource Solicitation Cluster.
  - 4.2.3 Study Cost Allocation.
  - 4.2.4 Transmission Provider's Interconnection Facilities and Network Upgrade Cost Allocation.
- 4.3 Transferability of Queue Position.
- 4.4 Modifications.
  - 4.4.6 Technological Change Procedure.
    - 4.4.6.1 Technological Change Request

## **Section 5. Transition Procedures**

- 5.1 Procedures for Transitioning to the First-Ready, First-Served Revised LGIP
  - 5.1.1.1 Transitional Serial Projects
  - 5.1.1.2 Combined System Impact and Interconnection Facilities Transitional Cluster Study
- 5.2 New Transmission Provider.

## **Section 6. Informational Interconnection Study**

- 6.1 Informational Interconnection Study Agreement.
- 6.2 Scope of Informational Interconnection Study.
- 6.3 Informational Interconnection Study Procedures.

## **Section 7. Phase 1 through 3 of the Definitive Interconnection Study Process**

- 7.1 Definitive Interconnection System Impact Study Agreement.
- 7.2 Execution of Definitive Interconnection System Impact Study Agreement.
- 7.3 Scope of Definitive Interconnection System Impact Study.
- 7.4 Definitive Interconnection System Impact Study Procedures
- 7.5 Meeting with Transmission Provider.
- 7.6 Re-Study.
- 7.7 Readiness Milestones and Site Control
  - 7.7.1 Readiness Milestone 1 ("M1")
  - 7.7.2 Readiness Milestone 2 ("M2")
  - 7.7.3 Readiness Milestone 3 ("M3")
  - 7.7.4 Readiness Milestone 4 ("M4")
  - 7.7.5 Security Requirements
  - 7.7.6 Site Control

## **Section 8. Interconnection Facilities Study**

- 8.1 Interconnection Facilities Study Agreement.**
- 8.2 Scope of Interconnection Facilities Study.**
- 8.3 Interconnection Facilities Study Procedures.**
- 8.4 Meeting with Transmission Provider.**
- 8.5 Re-Study**

**Section 9. Engineering & Procurement (“E&P”) Agreement.**

**Section 10. Standard Large Generator Interconnection Agreement (LGIA)**

- 10.1 Tender.**
- 10.2 Negotiation.**
- 10.3 Execution and Filing.**
- 10.4 Commencement of Interconnection Activities.**

**Section 11. Construction of Transmission Provider's Interconnection Facilities and Network Upgrades**

- 11.1 Schedule.**
- 11.2 Construction Sequencing**
  - 11.2.1 General.**
  - 11.2.2 Advance Construction of Network Upgrades that are an Obligation of an Entity other than Interconnection Customer.**
  - 11.2.3 Advancing Construction of Network Upgrades that are Part of an Expansion Plan of the Transmission Provider.**
  - 11.2.4 Amended Definitive Interconnection System Impact Study.**

**Section 12. Miscellaneous**

- 12.1 Confidentiality.**
  - 12.1.1 Scope.**
  - 12.1.2 Release of Confidential Information.**
  - 12.1.3 Rights.**
  - 12.1.4 No Warranties.**
  - 12.1.5 Standard of Care.**
  - 12.1.6 Order of Disclosure.**
  - 12.1.7 Remedies.**
  - 12.1.8 Disclosure to FERC, its Staff, or a State.**
- 12.2 Delegation of Responsibility.**
- 12.3 Obligation for Study Costs and Withdrawal Penalty**
- 12.4 Third Parties Conducting Studies.**
- 12.5 Disputes.**
  - 12.5.1 Submission.**
  - 12.5.2 External Arbitration Procedures.**
  - 12.5.3 Arbitration Decisions.**
  - 12.5.4 Costs.**
  - 12.5.5 Non-Binding Dispute Resolution Procedures.**
- 12.6 Local Furnishing Bonds.**

- 12.6.1      Transmission Providers That Own Facilities Financed by Local  
                 Furnishing Bonds.**
- 12.6.2      Alternative Procedures for Requesting Interconnection Service.**

Appendix A-1 – Overview and timeline of initiation of a DISIS Cluster: the DISIS Request Window, Customer Engagement Window, and Phase 1 of the DISIS

Appendix A-2 – Overview and Timeline of Definitive Interconnection Study Process, Including the DISIS Process.

Appendix 1 – Interconnection Request for a Large Generating Facility

Appendix 2 – Definitive Interconnection System Impact Study Agreement

Appendix 3 – Interconnection Facilities Study Agreement

Appendix 4 – Transitional Serial Interconnection Facilities Study Agreement

Appendix 5.1– Transitional Cluster Study Agreement

Appendix 5.2 –Provisional Interconnection Study Agreement

Appendix 5.3 – Surplus Interconnection Study Agreement

Appendix 5.4 – Informational Interconnection Study Request

Appendix 5.5 – Informational Interconnection Study Agreement

Appendix 6 – Standard Large Generator Interconnection Agreement

Appendix 6.1 – Interconnection Procedures For A Wind Generating Plant

## Section 1. Definitions

**Adverse System Impact** shall mean the negative effects due to technical or operational limits on conductors or equipment being exceeded that may compromise the safety and reliability of the electric system.

**Affected System** shall mean an electric system other than the Transmission Provider's Transmission System that may be affected by the proposed interconnection.

**Affected System Operator** shall mean the entity that operates an Affected System.

**Affiliate** shall mean, with respect to a corporation, partnership or other entity, each such other corporation, partnership or other entity that directly or indirectly, through one or more intermediaries, controls, is controlled by, or is under common control with, such corporation, partnership or other entity.

**Ancillary Services** shall mean those services that are necessary to support the transmission of capacity and energy from resources to loads while maintaining reliable operation of the Transmission Provider's Transmission System in accordance with Good Utility Practice.

**Applicable Laws and Regulations** shall mean all duly promulgated applicable federal, state and local laws, regulations, rules, ordinances, codes, decrees, judgments, directives, or judicial or administrative orders, permits and other duly authorized actions of any Governmental Authority.

**Applicable Reliability Council** shall mean the reliability council applicable to the Transmission System to which the Generating Facility is directly interconnected.

**Applicable Reliability Standards** shall mean the requirements and guidelines of NERC, the Applicable Reliability Council, and the Control Area of the Transmission System to which the Generating Facility is directly interconnected.

**Base Case** shall mean the base case power flow, short circuit, and stability data bases used for the Interconnection Studies by the Transmission Provider or Interconnection Customer.

**Breach** shall mean the failure of a Party to perform or observe any material term or condition of the Standard Large Generator Interconnection Agreement.

**Breaching Party** shall mean a Party that is in Breach of the Standard Large Generator Interconnection Agreement.

**Business Day** shall mean Monday through Friday, excluding Federal Holidays.

**Calendar Day** shall mean any day including Saturday, Sunday or a Federal Holiday. If a requirement due date lands on a Saturday, Sunday or Federal Holiday, the requirement is due the next Business Day.

**Cluster** shall mean a group of Interconnection Requests (one or more) that are studied together for the purpose of conducting the Interconnection Studies.

**Cluster Study** shall mean an Interconnection Study evaluating one or more Interconnection Requests.

**Clustering** shall mean the process whereby a group of Interconnection Requests is studied together, instead of serially, for the purpose of conducting the Interconnection Studies.

**Commercial Operation** shall mean the status of a Generating Facility that has commenced generating electricity for sale, excluding electricity generated during Trial Operation.

**Commercial Operation Date** of a unit shall mean the date on which the Generating Facility commences Commercial Operation as agreed to by the Parties pursuant to Appendix E to the Standard Large Generator Interconnection Agreement.

**Confidential Information** shall mean any confidential, proprietary or trade secret information of a plan, specification, pattern, procedure, design, device, list, concept, policy or compilation relating to the present or planned business of a Party, which is designated as confidential by the Party supplying the information, whether conveyed orally, electronically, in writing, through inspection, or otherwise.

**Contingent Facilities** shall mean those unbuilt Interconnection Facilities and Network Upgrades upon which the Interconnection Request's costs, timing, and study findings are dependent, and if delayed or not built, could cause a need for Re-Studies of the Interconnection Request or a reassessment of the Interconnection Facilities and/or Network Upgrades and/or costs and timing.

**Control Area** shall mean an electrical system or systems bounded by interconnection metering and telemetry, capable of controlling generation to maintain its interchange schedule with other Control Areas and contributing to frequency regulation of the interconnection. A Control Area must be certified by an Applicable NERC Regional Reliability Entity. Control Area shall have the same meaning as Balancing Authority Area as defined by NERC.

**Customer Engagement Window** shall have the meaning set forth in Section 4.2.1 of the Revised LGIP.

**Default** shall mean the failure of a Breaching Party to cure its Breach in accordance with Article 17 of the Standard Large Generator Interconnection Agreement.

**Definitive Interconnection Study Process ("Definitive Interconnection Study")** shall mean the complete definitive study process inclusive of the DISIS Request Window, Customer Engagement Window, Definitive Interconnection System Impact Study, and the Interconnection Facilities Study. Both the Resource Solicitation Cluster and the DISIS Cluster are processed under the Definitive Interconnection Study.

**Definitive Interconnection System Impact Study (“DISIS”)** shall mean an engineering study that evaluates the impact of a Cluster of Interconnection Requests on the safety and reliability of the Transmission System and, if applicable, an Affected System.

**Definitive Interconnection System Impact Study Agreement (“DISIS Agreement”)** shall mean the form of agreement contained in Appendix 2 of the Revised LGIP for conducting the Definitive Interconnection System Impact Study.

**Definitive Interconnection System Impact Study Cluster (“DISIS Cluster”)** shall mean an engineering study that evaluates the impact of the proposed interconnection(s) on the safety and reliability of Transmission System and, if applicable, an Affected System.

**DISIS Request Window** shall have the meaning set forth in Section 4.2.1 of the Revised LGIP.

**Dispute Resolution** shall mean the procedure for resolution of a dispute between the Parties in which they will first attempt to resolve the dispute on an informal basis.

**Distribution System** shall mean the Transmission Provider's facilities and equipment used to transmit electricity to ultimate usage points such as homes and industries directly from nearby generators or from interchanges with higher voltage transmission networks which transport bulk power over longer distances. The voltage levels at which distribution systems operate differ among areas.

**Distribution Upgrades** shall mean the additions, modifications, and upgrades to the Transmission Provider's Distribution System at or beyond the Point of Interconnection to facilitate interconnection of the Generating Facility and render the transmission service necessary to affect Interconnection Customer's wholesale sale of electricity in interstate commerce. Distribution Upgrades do not include Interconnection Facilities.

**Effective Date** shall mean the date on which the Standard Large Generator Interconnection Agreement becomes effective upon execution by the Parties subject to acceptance by FERC, or if filed unexecuted, upon the date specified by FERC.

**Emergency Condition** shall mean a condition or situation: (1) that in the judgment of the Party making the claim is imminently likely to endanger life or property; or (2) that, in the case of a Transmission Provider, is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to Transmission Provider's Transmission System, Transmission Provider's Interconnection Facilities or the electric systems of others to which the Transmission Provider's Transmission System is directly connected; or (3) that, in the case of Interconnection Customer, is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to, the Generating Facility or Interconnection Customer's Interconnection Facilities. System restoration and black start shall be considered Emergency Conditions; provided that Interconnection Customer is not obligated by the Standard Large Generator Interconnection Agreement to possess black start capability.

**Energy Resource Interconnection Service** shall mean an Interconnection Service that allows the Interconnection Customer to connect its Generating Facility to the Transmission Provider's



Transmission System to be eligible to deliver the Generating Facility's electric output using the existing firm or non-firm capacity of the Transmission Provider's Transmission System on an as available basis. Energy Resource Interconnection Service in and of itself does not convey transmission service.

**Engineering & Procurement (E&P) Agreement** shall mean an agreement that authorizes the Transmission Provider to begin engineering and procurement of long lead-time items necessary for the establishment of the interconnection in order to advance the implementation of the Interconnection Request.

**Environmental Law** shall mean Applicable Laws or Regulations relating to pollution or protection of the environment or natural resources.

**Federal Power Act** shall mean the Federal Power Act, as amended, 16 U.S.C. §§ 791a et seq.

**FERC** shall mean the Federal Energy Regulatory Commission (Commission) or its successor.

**Financial Security** shall have the meaning set forth in Section 7.7.1 of the Revised LGIP.

**Force Majeure** shall mean any act of God, labor disturbance, act of the public enemy, war, insurrection, riot, fire, storm or flood, explosion, breakage or accident to machinery or equipment, any order, regulation or restriction imposed by governmental, military or lawfully established civilian authorities, or any other cause beyond a Party's control. A Force Majeure event does not include acts of negligence or intentional wrongdoing by the Party claiming Force Majeure.

**Generating Facility** shall mean Interconnection Customer's device for the production and/or storage for later injection of electricity identified in the Interconnection Request, but shall not include the Interconnection Customer's Interconnection Facilities.

**Generating Facility Capacity** shall mean the net capacity of the Generating Facility and the aggregate net capacity of the Generating Facility where it includes multiple energy production devices.

**Good Utility Practice** shall mean any of the practices, methods and acts engaged in or approved by a significant portion of the electric industry during the relevant time period, or any of the practices, methods and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. Good Utility Practice is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather to be acceptable practices, methods, or acts generally accepted in the region.

**Governmental Authority** shall mean any federal, state, local or other governmental regulatory or administrative agency, court, commission, department, board, or other governmental subdivision, legislature, rulemaking board, tribunal, or other governmental authority having jurisdiction over the Parties, their respective facilities, or the respective services they provide, and exercising or entitled to exercise any administrative, executive, police, or taxing authority or

power; provided, however, that such term does not include Interconnection Customer, Transmission Provider, or any Affiliate thereof.

**Hazardous Substances** shall mean any chemicals, materials or substances defined as or included in the definition of “hazardous substances,” “hazardous wastes,” “hazardous materials,” “hazardous constituents,” “restricted hazardous materials,” “extremely hazardous substances,” “toxic substances,” “radioactive substances,” “contaminants,” “pollutants,” “toxic pollutants” or words of similar meaning and regulatory effect under any applicable Environmental Law, or any other chemical, material or substance, exposure to which is prohibited, limited or regulated by any applicable Environmental Law.

**Informational Interconnection Study** shall mean an analysis based on assumptions specified by Interconnection Customer in the Informational Interconnection Study Agreement.

**Informational Interconnection Study Agreement** shall mean the form of agreement contained in Appendix 5.5 of the Revised LGIP for conducting the Informational Interconnection Study.

**Initial Synchronization Date** shall mean the date upon which the Generating Facility is initially synchronized and upon which Trial Operation begins.

**In-Service Date** shall mean the date upon which the Interconnection Customer reasonably expects it will be ready to begin use of the Transmission Provider's Interconnection Facilities to obtain back feed power.

**Interconnection Customer** shall mean any entity, including the Transmission Provider, Transmission Owner or any of the Affiliates or subsidiaries of either, that proposes to interconnect its Generating Facility with the Transmission Provider's Transmission System.

**Interconnection Customer's Interconnection Facilities** shall mean all facilities and equipment, as identified in Appendix A of the Standard Large Generator Interconnection Agreement, that are located between the Generating Facility and the Point of Change of Ownership, including any modification, addition, or upgrades to such facilities and equipment necessary to physically and electrically interconnect the Generating Facility to the Transmission Provider's Transmission System. Interconnection Customer's Interconnection Facilities are sole use facilities (e.g. for generator interconnection).

**Interconnection Facilities** shall mean the Transmission Provider's Interconnection Facilities and the Interconnection Customer's Interconnection Facilities. Collectively, Interconnection Facilities include all facilities and equipment between the Generating Facility and the Point of Interconnection, including any modification, additions or upgrades that are necessary to physically and electrically interconnect the Generating Facility to the Transmission Provider's Transmission System. Interconnection Facilities are sole use facilities (e.g. for generator interconnection) and shall not include Distribution Upgrades, Stand Alone Network Upgrades or Network Upgrades. Interconnection Facilities may be shared by more than one Generating Facility in a Cluster.

**Interconnection Facilities Study** shall mean a study conducted by the Transmission Provider or a third party consultant for the Interconnection Customer to determine a list of facilities

(including Transmission Provider's Interconnection Facilities and Network Upgrades as identified in the Definitive Interconnection System Impact Study), the cost of those facilities, and the time required to interconnect the Generating Facility with the Transmission Provider's Transmission System. The scope of the study is defined in Section 8 of the Revised LGIP.

**Interconnection Facilities Study Agreement** shall mean the form of agreement contained in Appendix 3 of the Revised LGIP for conducting the Interconnection Facilities Study.

**Interconnection Request** shall mean an Interconnection Customer's request, in the form of Appendix 1 to the Revised LGIP, in accordance with the Tariff, to interconnect a new Generating Facility, or to increase the capacity of, or make a Material Modification to the operating characteristics of, an existing Generating Facility that is interconnected with the Transmission Provider's Transmission System.

**Interconnection Service** shall mean the service provided by the Transmission Provider associated with interconnecting the Interconnection Customer's Generating Facility to the Transmission Provider's Transmission System and enabling it to receive electric energy and capacity from the Generating Facility at the Point of Interconnection, pursuant to the terms of the Standard Large Generator Interconnection Agreement and, if applicable, the Transmission Provider's Tariff.

**Interconnection Study** shall mean any of the following studies: the Informational Interconnection Study, the Definitive Interconnection System Impact Study, and the Interconnection Facilities Study described in the Standard Large Generator Interconnection Procedures or Revised LGIP.

**Interconnection Study Agreement** shall mean any of the following agreements: the Informational Interconnection Study Agreement, the Definitive Interconnection System Impact Study Agreement, or the Interconnection Facilities Study Agreement described in the Standard Large Generator Interconnection Procedures or Revised LGIP.

**IRS** shall mean the Internal Revenue Service.

**Joint Operating Committee** shall be a group made up of representatives from Interconnection Customers and the Transmission Provider to coordinate operating and technical considerations of Interconnection Service.

**Large Generating Facility** shall mean a Generating Facility having a Generating Facility Capacity of more than 20 MW.

**Loss** shall mean any and all losses relating to injury to or death of any person or damage to property, demand, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties, arising out of or resulting from the other Party's performance, or non-performance of its obligations under the Standard Large Generator Interconnection Agreement on behalf of the indemnifying Party, except in cases of gross negligence or intentional wrongdoing by the indemnifying Party.

**Material Modification** shall mean those modifications that have a material impact on the cost or timing of any Interconnection Request with a later or equal Queue Position.

**Metering Equipment** shall mean all metering equipment installed or to be installed at the Generating Facility pursuant to the Standard Large Generator Interconnection Agreement at the metering points, including but not limited to instrument transformers, MWh-meters, data acquisition equipment, transducers, remote terminal unit, communications equipment, phone lines, and fiber optics.

**NERC** shall mean the North American Electric Reliability Council or its successor organization.

**Network Resource** shall mean any designated generating resource owned, purchased, or leased by a Network Customer under the Network Integration Transmission Service Tariff. Network Resources do not include any resource, or any portion thereof, that is committed for sale to third parties or otherwise cannot be called upon to meet the Network Customer's Network Load on a non-interruptible basis.

**Network Resource Interconnection Service** shall mean an Interconnection Service that allows the Interconnection Customer to integrate its Large Generating Facility with the Transmission Provider's Transmission System (1) in a manner comparable to that in which the Transmission Provider integrates its generating facilities to serve native load customers; or (2) in an RTO or ISO with market based congestion management, in the same manner as Network Resources. Network Resource Interconnection Service in and of itself does not convey transmission service.

**Network Upgrades** shall mean the additions, modifications, and upgrades to the Transmission Provider's Transmission System required at or beyond the point at which the Interconnection Facilities connect to the Transmission Provider's Transmission System to accommodate the interconnection of the Large Generating Facility to the Transmission Provider's Transmission System.

**Notice of Dispute** shall mean a written notice of a dispute or claim that arises out of or in connection with the Standard Large Generator Interconnection Agreement or its performance.

**OASIS** shall mean the Transmission Provider's Open Access Same-Time Information System.

**Party or Parties** shall mean Transmission Provider, Transmission Owner, Interconnection Customer or any combination of the above.

**Permissible Technological Advancement** shall mean modification to equipment that (1) results in electrical performance that is equal to or better than the electrical performance expected prior to the technology change, (2) does not cause any reliability concerns, (3) does not degrade the electrical characteristics of the generating equipment (e.g., the ratings, impedances, efficiencies, capabilities, and performance of the equipment under steady-state and dynamic conditions) and (4) does not have a material impact on the cost or timing of any Interconnection Request with a later queue priority date, and is therefore not a Material Modification. A Permissible Technological Advancements is a change in equipment that may achieve cost or grid performance efficiencies that may include turbines, inverters, plant

supervisory controls or other devices that may affect a generating facility's ability to provide ancillary services but does not include changes in generation technology type of fuel type.

**Phase (“Phase 1, Phase 2, Phase 3, or Phase 4”)** shall mean a distinct part of the Definitive Study Process as described in Section 7.

**Point of Change of Ownership** shall mean the point, as set forth in Appendix A to the Standard Large Generator Interconnection Agreement, where the Interconnection Customer's Interconnection Facilities connect to the Transmission Provider's Interconnection Facilities.

**Point of Interconnection** shall mean the point, as set forth in Appendix A to the Standard Large Generator Interconnection Agreement, where the Interconnection Facilities connect to the Transmission Provider's Transmission System.

**Provisional Interconnection Service** shall mean interconnection service provided by Transmission Provider associated with interconnecting the Interconnection Customer's Generating Facility to Transmission Provider's Transmission System and enabling that Transmission System to receive electric energy and capacity from the Generating Facility at the Point of Interconnection, pursuant to the terms of the Provisional Large Generator Interconnection Agreement and, if applicable, the Tariff.

**Provisional Interconnection Study** shall mean an analysis based on assumptions specified in the Provisional Interconnection Study Agreement.

**Provisional Interconnection Study Agreement** shall mean the form of agreement contained in Appendix 5.2 of the Standard Large Generator Interconnection Procedures for conducting the Provisional Interconnection Study.

**Provisional Large Generator Interconnection Agreement** shall mean the interconnection agreement for Provisional Interconnection Service established between Transmission Provider and/or the Transmission Owner and the Interconnection Customer. This agreement shall take the form of the Large Generator Interconnection Agreement, modified for provisional purposes.

**Queue** shall mean a queue for valid Interconnection Requests for the Definitive Interconnection Study Process.

**Queue Position** shall mean the order of a valid Interconnection Request, relative to all other pending valid Interconnection Requests, in the Definitive Interconnection Study Process. The Queue Position is established based upon the date and time Interconnection Customer satisfies all of the requirements of Section 7.2 of this Attachment N to enter the Definitive Study Process.

**Readiness Milestone(s)** shall have the meaning set forth in Section 7.7 of the Revised LGIP.

**Reasonable Efforts** shall mean, with respect to an action required to be attempted or taken by a Party under the Standard Large Generator Interconnection Agreement, efforts that are timely and consistent with Good Utility Practice and are otherwise substantially equivalent to those a Party would use to protect its own interests.

**Revised LGIP** shall mean the Large Generator Interconnection Process as described in this Attachment N.

**Resource Plan** shall mean any process authorized or required by Applicable Laws and Regulations for, *inter alia*, the selection of Generating Facilities.

**Resource Planning Entity** shall mean any entity required to develop a Resource Plan or conduct a Resource Solicitation Process.

**Resource Solicitation Cluster** shall mean a Cluster Study associated with a Resource Plan or related process.

**Resource Solicitation Process** shall mean any process authorized or required by Applicable Laws and Regulations for the acquisition of Network Resources.

**Scoping Meeting** shall mean the meeting between representatives of the Interconnection Customer and Transmission Provider conducted for the purpose of discussing the proposed interconnection request, alternative interconnection options, to exchange information including any transmission data and earlier study evaluations that would be reasonably expected to affect such interconnection options, to analyze such information, and to determine the potential feasible Points of Interconnection.

**Site Control** shall mean the exclusive land right to develop, construct, operate, and maintain the Generating Facility over the term of expected operation of the Generating Facility. Site Control shall include the right to develop, construct, operate, and maintain Interconnection Customer's Interconnection Facilities. Site Control may be demonstrated by documentation establishing: (1) ownership of, a leasehold interest in, or a right to develop a site of sufficient size to construct and operate the Generating Facility and associated Interconnection Customer's Interconnection Facilities; (2) an option to purchase or acquire a leasehold interest in a site of sufficient size to construct and operate the Generating Facility and associated Interconnection Facilities; or (3) any other documentation that clearly demonstrates the right of the Interconnection Customer to exclusively occupy a site of sufficient size to construct and operate the Generating Facility. Site Control for any co-located project is demonstrated by a contract or other agreement demonstrating shared land use for all co-located projects that meet the aforementioned provisions of this Site Control definition.

**Small Generating Facility** shall mean a Generating Facility that has a Generating Facility Capacity of no more than 20 MW.

**Stand Alone Network Upgrades** shall mean Network Upgrades that are not part of an Affected System that an Interconnection Customer may construct without affecting day-to-day operations of the Transmission System during their construction. Both the Transmission Provider and the Interconnection Customer must agree as to what constitutes Stand Alone Network Upgrades and identify them in Appendix A to the Standard Large Generator Interconnection Agreement. If the Transmission Provider and Interconnection Customer disagree about whether a particular Network Upgrade is a Stand Alone Network Upgrade, the Transmission Provider must provide the Interconnection Customer a written technical explanation outlining why the Transmission



Provider does not consider the Network Upgrade to be a Stand Alone Network Upgrade within 15 days of its determination.

**Standard Large Generator Interconnection Agreement (LGIA)** shall mean the form of interconnection agreement applicable to an Interconnection Request pertaining to a Large Generating Facility that is included in the Transmission Provider's Tariff.

**Standard Large Generator Interconnection Procedures (LGIP)** shall mean the interconnection procedures applicable to an Interconnection Request pertaining to a Large Generating Facility that are included in the Transmission Provider's Tariff.

**Surplus Interconnection Service** shall mean any unneeded portion of Interconnection Service established in a Large Generator Interconnection Agreement, such that if Surplus Interconnection Service is utilized the total amount of Interconnection Service at the Point of Interconnection would remain the same.

**Surplus Interconnection Study** shall mean an analysis based on assumptions specified by the Interconnection Customer in the Surplus Interconnection Study Agreement.

**Surplus Interconnection Study Agreement** shall mean the form of agreement contained in Appendix 5.3 of the Standard Large Generator Interconnection Procedures for conducting the Surplus Interconnection Study.

**System Protection Facilities** shall mean the equipment, including necessary protection signal communications equipment, required to protect (1) the Transmission Provider's Transmission System from faults or other electrical disturbances occurring at the Generating Facility and (2) the Generating Facility from faults or other electrical system disturbances occurring on the Transmission Provider's Transmission System or on other delivery systems or other generating systems to which the Transmission Provider's Transmission System is directly connected.

**Tariff** shall mean the Transmission Provider's Tariff through which open access transmission service and Interconnection Service are offered, as filed with FERC, and as amended or supplemented from time to time, or any successor tariff.

**Transmission Owner** shall mean an entity that owns, leases or otherwise possesses an interest in the portion of the Transmission System at the Point of Interconnection and may be a Party to the Standard Large Generator Interconnection Agreement to the extent necessary.

**Transmission Provider** shall mean the public utility (or its designated agent) that owns, controls, or operates transmission or distribution facilities used for the transmission of electricity in interstate commerce and provides transmission service under the Tariff. The term Transmission Provider should be read to include the Transmission Owner when the Transmission Owner is separate from the Transmission Provider.

**Transmission Provider's Interconnection Facilities** shall mean all facilities and equipment owned, controlled, or operated by the Transmission Provider from the Point of Change of Ownership to the Point of Interconnection as identified in Appendix A to the Standard Large Generator Interconnection Agreement, including any modifications, additions or upgrades to

such facilities and equipment. Transmission Provider's Interconnection Facilities are sole use facilities (e.g. for generator interconnection) and shall not include Distribution Upgrades, Stand Alone Network Upgrades or Network Upgrades. Transmission Provider's Interconnection Facilities may be shared by more than one Generating Facility in a given Study.

**Transmission System** shall mean the facilities owned, controlled or operated by the Transmission Provider or Transmission Owner that are used to provide transmission service under the Tariff.

**Trial Operation** shall mean the period during which Interconnection Customer is engaged in on-site test operations and commissioning of the Generating Facility prior to Commercial Operation.

**Withdrawal Penalty** shall have the meaning set forth in Section 3.7.1 of the Revised LGIP.

## **Section 2. Scope and Application.**

### **2.1 Application of Revised LGIP.**

Sections 2 through 12 apply to processing an Interconnection Request pertaining to a Large Generating Facility. As provided in Attachment P to the Tariff, Small Generating Facilities that are not eligible for the fast track process will be processed in a single Queue with Large Generating Facilities. Additionally, Small Generating Facilities requesting NRIS shall be processed under this Revised LGIP.

### **2.2 Comparability.**

Transmission Provider shall receive, process and analyze all Interconnection Requests in a timely manner as set forth in this Revised LGIP. Transmission Provider will use the same Reasonable Efforts in processing and analyzing Interconnection Requests from all Interconnection Customers, whether the Generating Facilities are owned by Transmission Provider, its subsidiaries or Affiliates, or others.

### **2.3 Base Case Data.**

Transmission Provider shall maintain base power flow, short circuit and stability databases, including all underlying assumptions, and contingency list on either its OASIS site or a password-protected website subject to confidentiality provisions in Revised LGIP Section 12.1. In addition, Transmission Provider shall maintain network models and underlying assumptions on either its OASIS site or a password-protected website. Such network models and underlying assumptions should reasonably represent those used during the most recent Interconnection Study and be representative of current system conditions. If Transmission Provider posts this information on a password-protected website, a link to the information must be provided on Transmission Provider's OASIS site. Transmission Provider is permitted to require that Interconnection Customers, OASIS site users and password-protected website users sign a confidentiality agreement before the release of commercially sensitive information or Critical Energy Infrastructure Information in the Base Case data. Such databases and



lists, hereinafter referred to as Base Cases, shall include all (1) generation projects and (2) transmission projects, including merchant transmission projects that are proposed for the Transmission System for which a transmission expansion plan has been submitted and approved by the applicable authority.

**2.4 No Applicability to Transmission Service.**

Nothing in this Revised LGIP shall constitute a request for transmission service or confer upon an Interconnection Customer any right to receive transmission service.

**Section 3. Interconnection Requests.**

**3.1 General.**

An Interconnection Customer shall submit to Transmission Provider an Interconnection Request in the form of Appendix 1 to this Revised LGIP, an application fee of \$5000, and a study deposit of:

- a. \$75,000 for requests of less than 50 MW, or
- b. \$150,000 for requests of 50 MW and greater, but less than 200 MW, or
- c. \$250,000 for requests of 200 MW and greater.

Transmission Provider shall apply the study deposit toward the cost of the Definitive Interconnection Study Process. Interconnection Customer shall submit a separate Interconnection Request for each site and may submit multiple Interconnection Requests for a single site. Interconnection Customer must submit a deposit with each Interconnection Request even when more than one request is submitted for a single site. An Interconnection Request to evaluate one site at two different voltage levels shall be treated as two Interconnection Requests. Interconnection Customers evaluating different options (such as different sizes, sites or voltages) are encouraged but not required to use the Informational Interconnection Study Process (please see Section 9) before entering the Definitive Interconnection Study Process.

At Interconnection Customer's option, Transmission Provider and Interconnection Customer will identify alternative Point(s) of Interconnection and configurations at the Scoping Meeting to evaluate in this process and attempt to eliminate alternatives in a reasonable fashion given resources and information available. Interconnection Customer shall select the definitive Point of Interconnection to be studied no later than the execution of the Definitive System Impact Study Agreement. For purposes of clustering Interconnection Service requests, Transmission Provider may make reasonable changes to the requested Point(s) of Interconnection to facilitate efficient interconnection of Interconnection Customers at common points of interconnection. Transmission Provider shall notify Interconnection Customers in writing of any intended changes to the requested Point(s) of Interconnection and the Point(s) of Interconnection shall only change upon mutual agreement.

Interconnection Customer may request a level of Interconnection Service below the Generating Facility Capacity. These requests for Interconnection Service shall be studied at the level of Interconnection Service requested for purposes of Interconnection Facilities and Network Upgrades, and associated costs, but may be subject to other studies at the full Generating Facility Capacity to ensure safety and reliability of the system, with the study costs borne by the Interconnection Customer. If after the additional studies are complete, Transmission Provider determines that additional Network Upgrades are necessary, then Transmission Provider must: (1) specify which additional Network Upgrade costs are based on which studies; and (2) provide a detailed explanation of why the additional Network Upgrades are necessary. Any Interconnection Facility and/or Network Upgrade costs required for safety and reliability also will be borne by the Interconnection Customer. Interconnection Customers may be subject to additional control technologies as well as testing and validation of those technologies consistent with Article 6 of the LGIA. The necessary control technologies and protection systems shall be established in Appendix C of the executed, or requested to be filed unexecuted, LGIA.

### **3.2 Identification of Types of Interconnection Services.**

At the time the Interconnection Request is submitted, Interconnection Customer must request either Energy Resource Interconnection Service or Network Resource Interconnection Service, as described below. Interconnection Customer may designate only one type of Interconnection Service for each separate Interconnection Request in the Queue. The type of Interconnection Service must be finalized on submission of the executed Definitive System Impact Study Agreement and may only be changed after the start of the Definitive Study Process between Phase 2 and Phase 3 of the Definitive Interconnection Study Process and only if a Cluster must be re-studied in Phase 3 (See Section 7.4) and otherwise may not be changed.

#### **3.2.1 Energy Resource Interconnection Service.**

##### **3.2.1.1 The Product.**

Energy Resource Interconnection Service allows Interconnection Customer to connect the Large Generating Facility to the Transmission System and be eligible to deliver the Large Generating Facility's output using the existing firm or non-firm capacity of the Transmission System on an "as available" basis. Energy Resource Interconnection Service does not in and of itself convey any right to deliver electricity to any specific customer or Point of Delivery.

##### **3.2.1.2 The Study.**

The study consists of short circuit/fault duty, steady state (thermal and voltage) and stability analyses. The short circuit/fault duty analysis would identify direct

Interconnection Facilities required and the Network Upgrades necessary to address short circuit issues associated with the Interconnection Facilities. The stability and steady state studies would identify necessary upgrades to allow full output of the proposed Large Generating Facility and would also identify the maximum allowed output, at the time the study is performed, of the interconnecting Large Generating Facility without requiring additional Network Upgrades.

### **3.2.2 Network Resource Interconnection Service.**

**3.2.2.1 The Product.** Transmission Provider must conduct the necessary studies and construct the Network Upgrades needed to integrate the Large Generating Facility: (1) in a manner comparable to that in which Transmission Provider integrates its generating facilities to serve native load customers; or (2) in an ISO or RTO with market-based congestion management, in the same manner as Network Resources. Network Resource Interconnection Service allows Interconnection Customer's Large Generating Facility to be designated as a Network Resource, up to the Large Generating Facility's full output, on the same basis as existing Network Resources interconnected to Transmission Provider's Transmission System, and to be studied as a Network Resource on the assumption that such a designation will occur. If the Transmission Provider has not been notified pursuant to Section 29.2 of Part III of the Tariff that Interconnection Customer's proposed Generating Facility is to be designated as a Network Resource within Transmission Provider's Control Area, the Interconnection Customer must provide the point of delivery or the geographic location on PSCo's system at which Interconnection Customer intends to deliver output out of Transmission Provider's Control Area.

**3.2.2.2 The Study.** The Interconnection Study for Network Resource Interconnection Service shall assure that Interconnection Customer's Large Generating Facility meets the requirements for Network Resource Interconnection Service and, as a general matter, that such Large Generating Facility's interconnection is also studied with Transmission Provider's Transmission System at peak load, under a variety of severely stressed conditions, to determine whether, with the Large Generating Facility at full output, the aggregate of generation in the local area can be delivered to the aggregate of load on Transmission Provider's Transmission System, consistent with

Transmission Provider's reliability criteria and procedures. This approach assumes that some portion of existing Network Resources' output is displaced by the output of Interconnection Customer's Large Generating Facility. Network Resource Interconnection Service in and of itself does not convey any right to deliver electricity to any specific customer or Point of Delivery. The Transmission Provider may also study the Transmission System under non-peak load conditions. However, upon request by the Interconnection Customer, the Transmission Provider must explain in writing to the Interconnection Customer why the study of non-peak load conditions is required for reliability purposes.

### **3.3 Utilization of Surplus Interconnection Service.**

Transmission Provider's process below allows an Interconnection Customer to utilize or transfer Surplus Interconnection Service at an existing Point of Interconnection. The original Interconnection Customer or one of its affiliates shall have priority to utilize Surplus Interconnection Service. If the existing Interconnection Customer or one of its affiliates does not exercise its priority, then that service may be made available to other potential Interconnection Customers.

#### **3.3.1 Surplus Interconnection Service Requests.**

Surplus Interconnection Service requests may be made by the existing Interconnection Customer whose Generating Facility is already interconnected or one of its affiliates. Surplus Interconnection Service requests also may be made by another Interconnection Customer. Section 3.3.2 provides a process for evaluating Interconnection Requests for Surplus Interconnection Service. Studies for Surplus Interconnection Service shall consist of reactive power, short circuit/fault duty, stability analyses, and any other appropriate studies. Steady-state (thermal/voltage) analyses may be performed as necessary to ensure that all required reliability conditions are studied. If the Surplus Interconnection Service was not studied under off-peak conditions, off-peak steady state analyses shall be performed to the required level necessary to demonstrate reliable operation of the Surplus Interconnection Service. If the original System Impact Study is not available for the Surplus Interconnection Service, both off-peak and peak analysis may need to be performed for the existing Generating Facility associated with the request for Surplus Interconnection Service. The reactive power, short circuit/fault duty, stability, and steady-state analyses for Surplus Interconnection Service will identify any additional Interconnection Facilities and/or Network Upgrades necessary.

#### **3.3.2 Process for Evaluating Surplus Interconnection Requests and Obtaining Surplus Interconnection Service.**

The following process will be used for evaluating and obtaining Surplus Interconnection Service.

An existing (original) Interconnection Customer whose Generating Facility is already interconnected may choose to, but is not required to, make Surplus Interconnection Service available to potential Interconnection Customers. The original Interconnection Customer retains the ability to use, either for themselves, for an affiliate, or for sale to a third party of their choosing, any Surplus Interconnection Service. The original Interconnection Customer may (a) stipulate the amount of Surplus Interconnection Service that is available, (b) designate when that service is available, and (c) describe any other conditions under which Surplus Interconnection Service at the point of interconnection may be used.

If the original Interconnection Customer makes Surplus Interconnection Service available at its Point of Interconnection, Transmission Provider shall work with the original Interconnection Customer (and the requesting Interconnection Customer, if different) to evaluate that Surplus Interconnection Service. Transmission Provider may accept third-party studies demonstrating no adverse impact to the Transmission Provider's Transmission System, but may require its own or additional studies at its discretion. Transmission Provider will use available studies to the extent applicable. If a Generating Facility interconnected prior to the issuance of Order No. 2003 and does not have an existing Large Generator Interconnection Agreement, it shall be considered to have Interconnection Service up to its installed capacity for purposes of the offering of Surplus Interconnection Service.

The requesting Interconnection Customer shall execute a Surplus Interconnection Study Agreement to evaluate Surplus Interconnection Service in the form of Appendix 5.3, and the Interconnection Customer requesting Surplus Interconnection Service shall be responsible for the cost of such study. Transmission Provider shall study Surplus Interconnection Service outside of the Queue and shall make reasonable efforts to complete the study within sixty (60) days of executing the Surplus Interconnection Study Agreement including the study deposit and receiving data required to perform the study.

Studies for Surplus Interconnection Service shall consist of reactive power, short circuit/fault duty, stability analyses, and any other appropriate studies. Steady-state (thermal/voltage) analyses may be performed as necessary to ensure that all required reliability conditions are studied. If the Surplus Interconnection Service was not studied under off-peak conditions, off-peak steady state analyses shall be performed to the required level necessary to demonstrate reliable operation of the Surplus Interconnection Service. If the

original System Impact Study is not available for the Surplus Interconnection Service, both off-peak and peak analysis may need to be performed for the existing Generating Facility associated with the request for Surplus Interconnection Service. The reactive power, short circuit/fault duty, stability, and steady-state analyses for Surplus Interconnection Service will identify any additional Interconnection Facilities and/or Network Upgrades necessary. Surplus Interconnection Service is only available up to the amount that can be accommodated without requiring new Network Upgrades.

Transmission Provider, original Interconnection Customer, and Surplus Interconnection Customer shall develop a Surplus Interconnection Agreement and other agreements as necessary and file such agreements with the Commission. Such agreements shall, among other things, establish conditions such as the term of operation, the interconnection service limit, and the mode of operation for energy production (i.e., common or singular operation) and the roles and responsibilities of the parties for maintaining the operation of the facility within the parameters of the surplus interconnection service agreement.

Transmission Provider is not required to execute an Interconnection Agreement for Surplus Interconnection Service if the agreements do not meet the definition set forth in their tariff or if the customer does not agree to the terms of such service, including any requirements that may be identified by the Transmission Provider in the studies for Surplus Interconnection Service. If the Surplus Interconnection Customer disputes an issue in the Interconnection Agreement for Surplus Interconnection Service, Transmission Provider must file the unexecuted Surplus Interconnection Service Agreement with the Commission if requested to do so by the Surplus Interconnection Customer.

### **3.4 Valid Interconnection Request.**

#### **3.4.1 Initiating an Interconnection Request.**

An Interconnection Customer wishing to join the Definitive Interconnection Study Process shall submit its Interconnection Request to Transmission Provider within, and no later than the close of the DISIS Request Window. To initiate an Interconnection Request, Interconnection Customer must submit all of the following:

- a. The application fee and study deposit described in Section 3.1;
- b. A completed application in the form of Appendix 1 to the Revised LGIP (including applicable technical information);



- c. A demonstration of Site Control as defined in Sections 1 and 7.7 of the Revised LGIP. Specifications for acceptable site size for the purposes of demonstrating Site Control are posted on Transmission Provider's OASIS website. Interconnection Customer may propose alternative specifications for site size to those posted on OASIS for Transmission Provider approval. In the event Transmission Provider and Interconnection Customer cannot reach agreement related to adequacy of site size, Transmission Provider will accept a Professional Engineer (licensed in the state of Colorado) stamped site plan drawing that depicts the proposed generation arrangement and specifies the maximum facility output for that arrangement;
- d. A Point of Interconnection;
- e. If the request is for NRIS and if Transmission Provider has not been notified pursuant to Section 29.2 of Part III of the Tariff that Interconnection Customer's proposed Generating Facility is to be designated as a Network Resource within Transmission Provider's Control Area, the point of delivery or the geographic location on Transmission Provider's system at which Interconnection Customer intends to deliver output out of Transmission Provider's Control Area;
- f. A Generating Facility size (MW) (and requested Interconnection Service amount if the requested Interconnection Service is less than the Generating Facility Capacity);
- g. One of the following Readiness Milestone ("M1") options totaling the entire capacity of the Generating Facility (or requested Interconnection Service amount if the requested Interconnection Service is less than the Generating Facility Capacity) or security equal to one times the study deposit described in Section 3.1 in the form of an irrevocable letter of credit or cash *in lieu* of the Readiness Milestone. The security is refunded to the Interconnection Customer according to Section 7.7.5.
  - i. Executed term sheet (or comparable evidence) related to a contract, binding upon the parties to the contract, for sale (1) of the constructed Generating Facility, or (2) of the Generating Facility's energy, or (3) of the Generating Facility's ancillary services if the Generating Facility is an electric storage resource; where the term of sale is not less than five (5) years;

- ii. Reasonable evidence that the project has been selected in a Resource Plan or Resource Solicitation Process; or
  - iii. Provisional Large Generator Interconnection Agreement filed with FERC that contains a commitment to move forward with constructing the Generating Facility and is not suspended; and
- h. Security equal one times the study deposit described in Section 3.1 in the form of an irrevocable letter of credit or cash. The security is refunded to the Interconnection Customer according to Section 7.7.5.

The expected In-Service Date of the new Large Generating Facility or increase in capacity of the existing Generating Facility shall be no more than the process window for the regional expansion planning period (or in the absence of a regional planning process, the process window for Transmission Provider's expansion planning period) not to exceed seven (7) years from the date the Interconnection Request is received by Transmission Provider, unless Interconnection Customer demonstrates that engineering, permitting and construction of the new Large Generating Facility or increase in capacity of the existing Generating Facility will take longer than the regional expansion planning period. The In-Service Date may succeed the date the Interconnection Request is received by Transmission Provider by a period up to ten (10) years, or longer where Interconnection Customer and Transmission Provider agree, such agreement not to be unreasonably withheld.

**3.4.2 Acknowledgment of Interconnection Request.**

Transmission Provider shall acknowledge receipt of the Interconnection Request within five (5) Business Days of the close of the DISIS Request Window and attach a copy of the received Interconnection Request to the acknowledgement.

**3.4.3 Deficiencies in Interconnection Request.**

An Interconnection Request will not be considered to be a valid request until all items in Section 3.4.1 have been received by Transmission Provider.

If an Interconnection Request fails to meet the requirements set forth in Section 3.4.1, Transmission Provider shall notify Interconnection Customer within five (5) Business Days of the close of the DISIS Request Window of the reasons for such failure and that the Interconnection Request does not constitute a valid request. Interconnection Customer shall provide Transmission Provider the additional requested information needed to constitute a valid request



within ten (10) Business Days after receipt of such notice. At any time, if Transmission Provider identifies issues with technical data provided by Interconnection Customer, Interconnection Customer and Transmission Provider shall work expeditiously and in good faith to remedy any data issues. Failure by Interconnection Customer to comply with this Section 3.4.3 shall be treated in accordance with Section 3.7.

Transmission Provider shall determine if the information contained in the Interconnection Request is adequately sufficient to start the Definitive System Impact Study by the close of the Customer Engagement Window.

#### **3.4.4 Scoping Meeting.**

Within ten (10) Business Days after the close of the DISIS Request Window, Transmission Provider shall host an open Scoping Meeting, for all Interconnection Requests received in that DISIS Request Window. If requested by Interconnection Customer, Transmission Provider shall also hold individual customer specific Scoping Meetings, which must be requested no later than fifteen (15) business days after the close of the DISIS Request Window.

The purpose of the Scoping Meeting shall be to discuss alternative interconnection options; to exchange information, including any transmission data that would reasonably be expected to impact such interconnection options; to analyze such information; and to determine the potential feasible Points of Interconnection. Transmission Provider and Interconnection Customer will bring to the meeting such technical data, including, but not limited to: (i) general facility loadings, (ii) general instability issues, (iii) general short circuit issues, (iv) general voltage issues, and (v) general reliability issues as may be reasonably required to accomplish the purpose of the meeting. Transmission Provider and Interconnection Customer will also bring to the meeting personnel and other resources as may be reasonably required to accomplish the purpose of the meeting in the time allocated for the meeting. On the basis of the meeting, Interconnection Customer shall designate its Point of Interconnection, pursuant to Section 7.2. The duration of the meeting shall be sufficient to accomplish its purpose.

### **3.5 OASIS Posting.**

#### **3.5.1 OASIS Posting.**

Transmission Provider will maintain on its OASIS a list of all Interconnection Requests. The list will identify, for each Interconnection Request: (i) the maximum summer and winter megawatt electrical output; (ii) the location by county and state; (iii) the station or transmission line or lines where the interconnection

will be made; (iv) the projected In-Service Date; (v) the status of the Interconnection Request, including Queue Position; (vi) the type of Interconnection Service being requested; (vii) the availability of any studies related to the Interconnection Request; (viii) the date of the Interconnection Request; (ix) the type of Generating Facility to be constructed (combined cycle, base load or combustion turbine, and fuel type); and (x) for Interconnection Requests that have not resulted in a completed interconnection, an explanation as to why it was not completed. Except in the case of an Affiliate, the list will not disclose the identity of Interconnection Customer until Interconnection Customer executes an LGIA or requests that Transmission Provider file an unexecuted LGIA with FERC. Before holding a Scoping Meeting with its Affiliate, Transmission Provider shall post on OASIS an advance notice of its intent to do so. Transmission Provider shall post to its OASIS site any deviations from the study timelines set forth herein. Interconnection Study reports shall be posted to Transmission Provider's OASIS site subsequent to the meeting between Interconnection Customer and Transmission Provider to discuss the applicable study results. Transmission Provider shall also post any known deviations in the Large Generating Facility's In-Service Date.

Transmission Provider will maintain on its OASIS or its website summary statistics related to processing Interconnection Studies pursuant to Interconnection Requests, updated quarterly. If Transmission Provider posts this information on its website, a link to the information must be provided on Transmission Provider's OASIS site. For each calendar quarter, Transmission Providers must calculate and post the information detailed in sections 3.5.1.1 through 3.5.1.3.

**3.5.1.1 Definitive Study Phase 1 Processing Time.**

- (A) Number of Interconnection Requests that had Phase 1 Studies completed within Transmission Provider's coordinated region during the reporting quarter,
- (B) Number of Interconnection Requests that had Phase 1 Studies completed within Transmission Provider's coordinated region during the reporting quarter that were completed more than ninety (90) Calendar Days after the start of the Phase 1 Study for that Cluster,
- (C) At the end of the reporting quarter, the number of active valid Interconnection Requests with ongoing incomplete Phase 1 Studies where such Phase 1 Studies started more than ninety (90) Calendar Days before the reporting quarter end,

- (D) Mean time (in days), Phase 1 Studies completed within Transmission Provider's coordinated region during the reporting quarter, from the date when Transmission Provider started the Phase 1 Study to the date when Transmission Provider provided the completed Phase 1 Study report to the Interconnection Customer,
- (E) Percentage of Phase 1 Studies exceeding ninety (90) Calendar Days to complete this reporting quarter, calculated as the sum of 3.5.1.1(B) plus 3.5.1.1(C) divided by the sum of 3.5.1.1(A) plus 3.5.1.1(C)).

**3.5.1.2 Definitive Interconnection System Impact Studies Processing Time.**

- (A) Number of Interconnection Requests that had Definitive Interconnection System Impact Studies (Phase 2 or Phase 3) completed within Transmission Provider's coordinated region during the reporting quarter,
- (B) Number of Definitive Interconnection Requests that had Phase 2 or Phase 3 Studies completed within Transmission Provider's coordinated region during the reporting quarter that were completed more than one hundred fifty (150) Calendar Days after start of the respective Phase 2 or Phase 3 Study,
- (C) At the end of the reporting quarter, the number of active valid Interconnection Requests with ongoing incomplete Phase 2 or Phase 3 Studies where such started more than one hundred fifty (150) Calendar Days before the reporting quarter end,
- (D) Mean time (in days), Phase 2 and Phase 3 Studies completed within Transmission Provider's coordinated region during the reporting quarter, from the date when the Phase 2 or Phase 3 Study started to the date when Transmission Provider provided the completed Phase 2 or Phase 3 Study report to the Interconnection Customer,
- (E) Percentage of Phase 2 or Phase 3 Studies exceeding one hundred fifty (150) Calendar Days to complete this reporting quarter, calculated as the sum of 3.5.1.2(B) plus 3.5.1.2(C) divided by the sum of 3.5.1.2(A) plus 3.5.1.2(C)).

**3.5.1.3 Interconnection Facilities Studies Processing Time.**

- (A) Number of Interconnection Requests that had Interconnection Facilities Studies that are completed within Transmission Provider's coordinated region during the reporting quarter,
- (B) Number of Interconnection Requests that had Interconnection Facilities Studies that are completed within Transmission Provider's coordinated region during the reporting quarter that were completed more than ninety (90) Calendar Days after receipt by Transmission Provider of the Interconnection Customer's executed Interconnection Facilities Study Agreement,
- (C) At the end of the reporting quarter, the number of active valid Interconnection Service requests with ongoing incomplete Interconnection Facilities Studies where such Interconnection Requests had executed Interconnection Facilities Studies Agreement received by Transmission Provider more than ninety (90) Calendar Days before the reporting quarter end,
- (D) Mean time (in days), for Interconnection Facilities Studies completed within Transmission Provider's coordinated region during the reporting quarter, calculated from the date when Transmission Provider received the executed Interconnection Facilities Study Agreement to the date when Transmission Provider provided the completed Interconnection Facilities Study to the Interconnection Customer,
- (E) Percentage of delayed Interconnection Facilities Studies this reporting quarter, calculated as the sum of 3.5.1.3(B) plus 3.5.1.3(C) divided by the sum of 3.5.1.3(A) plus 3.5.1.3(C)).

**3.5.1.4 Valid Interconnection Service Requests Withdrawn from Transmission Provider's Definitive Interconnection Study Process Queue.**

- (A) Number of Interconnection Requests withdrawn from Transmission Provider's interconnection queue during the reporting quarter,
- (B) Number of Interconnection Requests withdrawn from Transmission Provider's interconnection queue during the reporting quarter before completion of any interconnection studies or execution of any interconnection study agreements,

- (C) Number of Interconnection Requests withdrawn from Transmission Provider's interconnection queue during the reporting quarter after the start of a Phase 1 study and before completion of an associated Phase 1, Phase 2, or Phase 3 Study,
- (D) Number of Interconnection Requests withdrawn from Transmission Provider's interconnection queue during the reporting quarter after the completion of a System Impact Study Phase (e.g. Phase 2 or Phase 3), but before completion of an Interconnection Facilities Study,
- (E) Number of Interconnection Requests withdrawn from Transmission Provider's interconnection queue after execution of a generator interconnection agreement or Interconnection Customer requests the filing of an unexecuted, new interconnection agreement,
- (F) Mean time (in days), for all withdrawn Interconnection Requests, from the date when the request was determined to be valid to when Transmission Provider received the request to withdraw from the queue.

**3.5.2 Requirement to Post Interconnection Study Metrics.**

Transmission Provider is required to post on OASIS or its website the measures in paragraph 3.5.1.1(A) through paragraph 3.5.1.4(F) for each calendar quarter within 30 days of the end of the calendar quarter. Transmission Provider will keep the quarterly measures posted on OASIS or its website for three calendar years with the first required report to be in the first quarter of 2020. If Transmission Provider retains this information on its website, a link to the information must be provided on Transmission Provider's OASIS site.

**3.5.3 Reporting Requirement for Late Studies.**

In the event that any of the values calculated in paragraphs 3.5.1.1(E), 3.5.1.2(E), or 3.5.1.3(E) exceeds 25 percent for two consecutive calendar quarters, Transmission Provider will have to comply with the measures below for the next four consecutive calendar quarters and must continue reporting this information until Transmission Provider reports four consecutive calendar quarters without the values calculated in 3.5.1.1(E), 3.5.1.2(E), or 3.5.1.3(E) exceeding 25 percent for two consecutive calendar quarters:

- (i) Transmission Provider must submit a report to the Commission describing the reason for each study or group of clustered studies pursuant to an Interconnection Request that exceeded its deadline

(i.e., 90, 150 or 90 days) for completion (excluding any allowance for Reasonable Efforts). Transmission Provider must describe the reasons for each study delay and any steps taken to remedy these specific issues and, if applicable, prevent such delays in the future. The report must be filed at the Commission within 45 days of the end of the calendar quarter.

- (ii) Transmission Provider shall aggregate the total number of employee-hours and third party consultant hours expended towards interconnection studies within its coordinated region that quarter and post on OASIS or its website. If Transmission Provider posts this information on its website, a link to the information must be provided on Transmission Provider's OASIS site. This information is to be posted within 30 days of the end of the calendar quarter.

### **3.6 Coordination with Affected Systems.**

Transmission Provider will coordinate the conduct of any studies required to determine the impact of the Interconnection Request on Affected Systems with Affected System Operators and, if possible, include those results (if available) in its applicable Interconnection Study within the time frame specified in this Revised LGIP. Transmission Provider will include such Affected System Operators in all meetings held with Interconnection Customer as required by this Revised LGIP. Interconnection Customer will cooperate with Transmission Provider in all matters related to the conduct of studies and the determination of modifications to Affected Systems. A Transmission Provider which may be an Affected System shall cooperate with Transmission Provider with whom interconnection has been requested in all matters related to the conduct of studies and the determination of modifications to Affected Systems. It is the responsibility of the Affected System Owner to provide the requirements or potential impediments to providing the requested interconnection service, including a preliminary indication of the cost and length of time that would be necessary to (i) complete any interconnection studies and (ii) construct any necessary interconnection facilities and network upgrades needed to reliably interconnect at the requested service level.

### **3.7 Withdrawal.**

Interconnection Customer may withdraw its Interconnection Request at any time by written notice of such withdrawal to Transmission Provider. In addition, if Interconnection Customer fails to adhere to all requirements of this Revised LGIP, except as provided in Section 12.5 (Disputes), Transmission Provider shall deem the Interconnection Request to be withdrawn and shall provide written notice to Interconnection Customer of the deemed withdrawal and an explanation of the reasons for such deemed withdrawal. Upon receipt of such written notice, Interconnection Customer shall have fifteen (15) Business Days in which to either respond with information or actions that cure the deficiency or to notify Transmission Provider of its intent to pursue Dispute Resolution.



Withdrawal shall result in the loss of Interconnection Customer's Queue Position. If Interconnection Customer disputes the withdrawal and loss of its Queue Position, then during Dispute Resolution, Interconnection Customer's Interconnection Request is eliminated from the Queue until such time that the outcome of Dispute Resolution would restore its Queue Position. An Interconnection Customer that withdraws or is deemed to have withdrawn its Interconnection Request shall pay to Transmission Provider all costs that Transmission Provider prudently incurs with respect to that Interconnection Request prior to Transmission Provider's receipt of notice described above. Interconnection Customer must pay all monies due to Transmission Provider before it is allowed to obtain any Interconnection Study data or results.

In the case of a withdrawal, Transmission Provider shall: (i) update the OASIS Queue Position posting; (ii) impose the Withdrawal Penalty described in Section 3.7.1, (iii), refund any security after settling the final invoice (see Section 7.7.5), and (iv) refund to Interconnection Customer any of the refundable portion of Interconnection Customer's study deposit that exceeds the share of the costs that Transmission Provider has incurred, including interest calculated in accordance with section 35.19a(a)(2) of FERC's regulations. In the event of such withdrawal, Transmission Provider, subject to the confidentiality provisions of Section 12.1, shall provide, at Interconnection Customer's request, all information that Transmission Provider developed for any completed study conducted up to the date of withdrawal of the Interconnection Request.

### **3.7.1 Withdrawal Penalty.**

Interconnection Customers shall be subject to a Withdrawal Penalty if they withdraw their request from the Queue or the Generating Facility does not otherwise reach Commercial Operation unless (1) the withdrawal does not negatively affect the timing or cost of equal or lower queued projects; (2) the cost responsibility identified for that Interconnection Customer in the current study report associated with new upgrades to the Transmission Provider's System increased by more than twenty-five percent (25%) compared to the costs identified in the previous report; or (3) if the customer withdraws after the Phase 4 report is published and before providing M5, and the cost responsibility for that Interconnection Customer identified in the Interconnection Facilities Study report (the Phase 4 report) increases by more than one hundred percent (100%) compared to the Phase 2 report.

#### **3.7.1.1 Calculation of the Withdrawal Penalty.**

If the Interconnection Customer provided a demonstration of readiness, that Interconnection Customer's Withdrawal Penalty shall be equal to the higher of the study deposit or one (1) times of its actual allocated cost of the Definitive Interconnection Study Process.

If the Interconnection Customer did not provide a demonstration of readiness, that Interconnection Customer's Withdrawal Penalty shall be dependent on the Phase in which the Interconnection Customer withdraws and shall be calculated as follows:

1. If the Interconnection Customer withdraws in Phase 1 (after M1, but before M2), the Withdrawal Penalty shall be the higher of the study deposit or two (2) times its actual allocated cost of the Definitive Interconnection Study Process. This amount shall be capped at one (1) million dollars.
2. If the Interconnection Customer withdraws in Phase 2 (after M2, but before M3), the Withdrawal Penalty shall be the higher of the study deposit or three (3) times its actual allocated cost of the Definitive Interconnection Study Process. This amount shall be capped at one and one half (1.5) million dollars.
3. If the Interconnection Customer withdraws in Phase 3 (after M3, but before M4), the study cost obligation shall be the higher of the study deposit or five (5) times its actual allocated cost of the Definitive Interconnection Study Process. This amount shall be capped at two (2) million dollars.
4. If the Interconnection Customer withdraws in Phase 4 (after M4, but before M5), the Withdrawal Penalty shall be the higher of the study deposit or seven (7) times its actual allocated cost of the Definitive Interconnection Study Process. This amount shall be capped at two and a half (2.5) million dollars.

The Withdrawal Penalty for any customer that has executed an LGIA is the higher of the study deposit or nine (9) times its actual allocated cost of the Definitive Interconnection Study Process.

#### **3.7.1.2 Distribution of the Withdrawal Penalty.**

Any Withdrawal Penalty revenues shall be used to fund generation interconnection studies. Withdrawal Penalty revenues shall first be applied, in the form of a bill credit, to not-yet-invoiced study costs for other Interconnection Customers in the same cluster, and to the extent that such studies are fully credited, shall be applied to study costs of future clusters in Queue order. Withdrawn Interconnection Customers shall not receive a bill credit associated with Withdrawal Penalties. Distribution of Withdrawal Penalty



revenues to a specific study shall not exceed the total actual study costs. Allocation of Withdrawal Penalty revenues within a cluster to a specific customer shall be comparable to the allocation of study costs described in Section 4.2.3. Specifically, the Withdrawal Penalty revenue distribution to each customer in a specific cluster, shall be (1) fifty percent (50%) on a per capita basis based on number of Interconnection Requests in the applicable Cluster; and (2) fifty percent (50%) to Interconnection Customers on a pro-rata basis based on requested megawatts included in the applicable Cluster. Distribution of Withdrawal Penalty revenue associated with Readiness Milestone 5 shall not be distributed to the remaining customers in that cluster until all customers in that cluster have reached Commercial Operation and thereafter shall be distributed as described above. Transmission Provider shall not change the distribution of Withdrawal Penalty revenue without authorization by the Commission. Transmission Provider shall post the Withdrawal Penalty balance on its OASIS site.

### **3.8 Identification of Contingent Facilities.**

Contingent Facilities shall be identified in the Interconnection System Impact Study report including in any subsequent restudies, in the Interconnection Facilities Study report including in any subsequent restudies, and then included in the Interconnection Customer's Large Generator Interconnection Agreement. Transmission Provider shall also provide, upon request of the Interconnection Customer, the estimated interconnection facility and/or network upgrade costs and estimated in-service completion date of each identified Contingent Facility when this information is readily available and not commercially sensitive.

Any unbuilt Interconnection Facility and/or Network Upgrade included in the study model that is necessary as determined through technical studies such as power flow, short circuit and/or stability analysis to accommodate the Interconnection Request, will be identified as a Contingent Facility. Network Upgrades will include both Network Upgrades planned by the Transmission Provider or Affected Systems in the Base Case as well as those Network Upgrades identified for higher queued Interconnection Requests.

In the System Impact Study report including in any subsequent restudies, Transmission Provider is to explain why each listed Contingent Facility was identified as such, and how it relates to the Interconnection Customer's Interconnection Request, such that Interconnection Customer can better understand their potential risk exposure should any such Contingent Facility be delayed or not built.

#### **3.8.1 Method for Identifying Contingent Facilities**

**Step 1** Prior to performing an Interconnection Customer's System Impact Study, Transmission Provider is to review the transmission system and other Affected Systems for any applicable unbuilt facilities (including new Interconnection facilities of higher queued generation) that may be necessary to provide the Interconnection Customer's requested Interconnection Service.

**Step 2** Transmission Provider is to identify all unbuilt facilities as potential Contingent Facilities, including Interconnection Facilities and Network Upgrades in the study region on which the Interconnection Customers costs, timing and study findings are potentially dependent.

**Step 3** Transmission Provider will model each unbuilt facility out of service and perform power flow analysis to identify potential system performance violations per applicable RC, WECC, or NERC requirements due to the absence of the unbuilt facility. When the system performance violation is confirmed, the dependency of each Interconnection Request to the unbuilt facility will be examined by calculating the distribution factor (DFAX) contribution from that Interconnection Request. If DFAX of an Interconnection Request on any single overload is greater or equal to 1% the unbuilt facility will be identified as Contingent Facility for that request.

**Step 4** All unbuilt voltage support facilities within the study pocket are Contingent Facilities for Interconnection Requests in that study pocket.

**Step 5** All future breaker replacements which have a short circuit current contribution from the Interconnection Request are Contingent Facilities.

**Step 6** All planned yet unbuilt transmission projects due to a stability need within the study pocket are Contingent Facilities for Interconnection Requests in that study pocket.

**Step 7** All new Interconnection Facilities and/or Network Upgrades identified by Transmission Provider and Affected Systems to be required for the current Interconnection Request as part of the study are Contingent Facilities for that request.

## **Section 4. Interconnection Request Evaluation Process.**

### **4.1 Queue Position.**

#### **4.1.1 Assignment of Queue Position**

Transmission Provider shall assign a Queue Position as follows: the Queue Position within the Queue shall be assigned based upon the date and time of receipt of all items required pursuant to the provisions of Section 3.4. There is no queue for Informational Interconnection Studies.

#### **4.1.2 Higher Queue Position**

A higher Queue Position assigned to an Interconnection Request is one that has been placed “earlier” in the Queue in relation to another Interconnection Request that is assigned a lower Queue Position. All requests studied in a single Cluster shall be considered equally queued but Clusters initiated earlier in time shall be considered to have a higher Queue Position than clusters initiated later. The Queue Position of an Interconnection Request shall have no bearing on the allocation of the cost of the common upgrades identified in the applicable Cluster Study (such costs will be allocated among Interconnection Requests in accordance with Section 4.2.4). Moving a Point of Interconnection shall result in a loss of Queue Position if it is deemed a Material Modification under Section 4.4.3.

#### **4.2 General Study Process.**

The diagram attached as Appendix A-1 provides an overview and timeline of initiation of a Definitive Interconnection Study: the DISIS Request Window, Customer Engagement Window, and Phase 1 of the DISIS.

Cluster Studies performed within the Definitive Interconnection Study Process shall be conducted in such a manner to ensure the efficient implementation of the applicable regional transmission expansion plan in light of the Transmission System's capabilities at the time of each study.

##### **4.2.1 Initiation of a Definitive Interconnection System Impact Study Cluster.**

Transmission Provider shall accept Interconnection Requests during a forty five (45) Calendar Day period, hereinafter referred to as the “DISIS Request Window.” A DISIS Request Window shall open annually on February 1<sup>st</sup> and close 45 Calendar Days thereafter or the following Business Day if the 45<sup>th</sup> day falls on a weekend or NERC recognized holiday. A second DISIS Request Window shall open annually on August 1<sup>st</sup> and close on 45 Calendar Days thereafter or the following Business Day if the 45<sup>th</sup> day falls on a weekend or NERC recognized holiday.

If one or more valid requests are received, for seventy-five (75) Calendar Days following the close of the DISIS Request Window (the “Customer Engagement Window”), Transmission Provider shall work with applicable Interconnection Customers to build models, verify data, hold stakeholder meetings (including Scoping Meetings, as appropriate), work with requestors to cure any deficiencies in the Interconnection Request, and generally prepare for the start of the Definitive Interconnection System Impact Study. Notwithstanding the preceding sentence and upon written consent of all Interconnection Requests for a specific Cluster, Transmission Provider may shorten the “Customer Engagement Window” in order to start the Definitive

Interconnection System Impact Study earlier. Within the first ten (10) Business Days following the close of the DISIS Request Window, Transmission Provider shall post on its OASIS site a list of Interconnection Requests for that Cluster. The list shall identify, for each Interconnection Request: (i) the requested amount of Interconnection Service; (ii) the location by county and state; (iii) the station or transmission line or lines where the interconnection will be made; (iv) the projected In-Service Date; (v) the type of Interconnection Service (vi) cluster being requested; and (vi) the type of Generating Facility to be constructed including fuel type such as wind, natural gas, coal, or solar.

At the end of the Customer Engagement Window, all Interconnection Requests deemed sufficient that have an executed DISIS Agreement shall be included in that DISIS Cluster. Any Interconnection Requests not deemed sufficient or undergoing Dispute Resolution at the close of the Customer Engagement Window shall not be included in that DISIS Cluster. Immediately following the Customer Engagement Window, Transmission Provider shall initiate the Definitive Interconnection System Impact Study described in more detail in Section 7.

#### **4.2.2 Initiation of a Resource Solicitation Cluster.**

At any time, and upon request of a Resource Planning Entity, Transmission Provider may initiate the study of a Resource Solicitation Cluster. The Resource Solicitation Cluster shall respect Queue Position and shall be studied as its own Cluster. Within ten (10) Business Days of receipt of a request to perform a Resource Solicitation Cluster that includes valid Interconnection Requests as described in Section 3.4, Transmission Provider and Resource Planning Entity shall meet to determine a mutually agreeable scope of study and timeframe to initiate the Resource Solicitation Cluster. The timeline shall indicate the close of the Customer Engagement Window for that Resource Solicitation Cluster. Thereafter the Definitive Interconnection System Impact Study shall proceed as described in Section 7.

In order to initiate Transmission Provider's study of Interconnection Requests made in connection with a Resource Solicitation Process, Resource Planning Entity must: (a) act as the authorized representative for all Interconnection Requests submitted to the Resource Solicitation Cluster; (b) submit all Interconnection Requests arising from the Resource Solicitation Process at the same time to ensure an equal Queue Position for all Generating Facilities included in the Resource Solicitation Cluster; (c) cooperate with Transmission Provider in conducting the studies; and (d) request a reasonable number of different combinations of such Interconnection Requests to meet Resource Planning Entity's identified need and assumptions in

the Resource Solicitation Process. Such studies in connection with a Resource Solicitation Process shall be implemented based upon Queue Position (relative to higher or lower queued clusters) and shall consider Resource Planning Entity's needs and assumptions identified in the Resource Solicitation Process.

The Resource Planning Entity may submit for inclusion in the Resource Solicitation Process an Interconnection Request for a Generating Facility that already has a higher Queue Position pursuant to Section 4.1.1. A Generating Facility that initially is associated with a Queue Position through the Resource Solicitation Process may also reserve a lower Queue Position separate from the Resource Solicitation Process pursuant to Section 4.1.1. In either case, Interconnection Customer must meet all requirements associated with maintaining each Queue Position for the Generating Facility. In the event a Generating Facility has multiple Queue Positions, it shall not be double counted in the study models.

A Generating Facility in the Resource Solicitation Process is subject to study according to the Queue Position of the Resource Solicitation Cluster. A Generating Facility that is not a part of the Resource Solicitation Process is also subject to study according to its Queue Position. All studies must be performed in accordance with the provisions of the Revised LGIP, and may not be delayed as a result of the Resource Solicitation Process.

After Transmission Provider completes the Definitive Interconnection System Impact Studies for the requested combinations, the results will be provided (Phase 1 Reports, Phase 2 Reports, Phase 3 Reports, etc.; as applicable under Section 7.4) to the Resource Planning Entity for use in the Resource Solicitation Process. The results will be posted on Transmission Provider's OASIS consistent with the posting of other study results.

After receipt of the Phase 2 Report, Resource Planning Entity must select one of the studied combinations prior to the commencement of any Interconnection Facilities Study associated with the Resource Solicitation Process. Prior to the completion of the Interconnection Facilities Study of all of the components of the selected combination, Resource Planning Entity may replace components, subject to any necessary Re-Study pursuant to Sections 7.6 or 8.5. While conducting the Definitive Interconnection Study Process, Transmission Provider may suspend further action on the Interconnection Requests in the Resource Solicitation Process that are not included in the selected combination. Once a Generating Facility is rejected in the Resource Solicitation Process, the Generating Facility shall lose the Queue Position it held as part of the Resource Solicitation Process. If a Generating Facility is selected by Resource Planning Entity at the

conclusion of the Resource Solicitation Process, the Generating Facility may no longer maintain more than one Queue Position.

**4.2.3 Study Cost Allocation.**

Transmission Provider shall determine each Interconnection Customer's share of the DISIS costs of a Cluster Study by allocating: (1) fifty percent (50%) of the applicable study costs to Interconnection Customers on a per capita basis based on number of Interconnection Requests included in the applicable Cluster; and (2) fifty percent (50%) of the applicable study costs to Interconnection Customers on a pro-rata basis based on requested megawatts included in the applicable Cluster. For instance, the cost of a cluster study consisting of a 100 MW request and a 900 MW request would be allocated 30% to the 100 MW request and 70% to the 900 MW request. The Interconnection Facilities Study portion of the Definitive Interconnection Study Process is an individual study and costs for each Interconnection Facilities Study is directly assigned to the Interconnection Customer associated with such study.

**4.2.4 Transmission Provider's Interconnection Facilities and Network Upgrade Cost Allocation.**

For Transmission Provider's Interconnection Facilities and Network Upgrades identified in Cluster Studies, Transmission Provider shall calculate each Interconnection Customer's share of costs in the following manner:

- a) Station equipment Network Upgrades, including all switching stations, shall be allocated based on the number of Generating Facilities interconnecting at an individual station on a per capita basis (i.e. on a per Interconnection Request basis). If multiple Interconnection Customers are connecting to the Transmission Provider's System through a single Interconnection Customer's Interconnection Facility (i.e. sharing the Interconnection Customer's Interconnection Facility connecting to the Transmission Provider's Interconnection Facility(ies)), those Interconnection Customers shall be considered one Interconnection Customer for the per capita calculation described in the preceding sentence. Shared Transmission Provider's Interconnection Facilities shall be allocated based on the number of Generating Facilities sharing that Transmission Provider's Interconnection Facility on a per capita basis.



- b) All Network Upgrades other than those identified in Section 4.2.4.a will be allocated based on the proportional impact of each individual Generating Facility in the Cluster Studies on such Network Upgrades. The proportional impact of such Network Upgrades shall be calculated as follows. All transmission lines and transformers identified as Network Upgrades shall be allocated using distribution factor analysis. Voltage support related Network Upgrades shall be allocated using a voltage impact analysis which will identify each Generating Facility's contribution to the voltage violation. Network Upgrades associated with upgrading existing breakers not physically located at the substation to which the Generating Facility is interconnecting or associated with a new transmission facility shall be allocated based on short circuit analysis.
- c) Costs of Transmission Provider's Interconnection Facilities are directly assigned to the Interconnection Customer(s) using such facilities.

Interconnection Customer funding of Network Upgrades are eligible for credits as provided in Section 11.4 of the LGIA.

#### **4.3 Transferability of Queue Position.**

An Interconnection Customer may transfer its Queue Position to another entity only if such entity acquires the specific Generating Facility identified in the Interconnection Request and the Point of Interconnection does not change.

#### **4.4 Modifications.**

Interconnection Customer shall submit to Transmission Provider, in writing, modifications to any information provided in the Interconnection Request. Interconnection Customer shall retain its Queue Position if the modifications are in accordance with Sections 4.4.1, 4.4.2, 4.4.5, or are determined not to be Material Modifications pursuant to Section 4.4.3.

Notwithstanding the above, during the course of the Interconnection Studies, either Interconnection Customer or Transmission Provider may identify changes to the planned interconnection that may improve the costs and benefits (including reliability) of the interconnection, and the ability of the proposed change to accommodate the Interconnection Request. Subject to the forgoing sentence, and provided, however, they do not result in a material modification, to the extent the identified changes are acceptable to Transmission Provider, Interconnection Customer and potentially impacted Interconnection Customers in the same Cluster, such acceptance not to be unreasonably withheld, Transmission Provider shall modify the Point of Interconnection and/or configuration in accordance with such changes and proceed with any re-studies necessary to do so in accordance with Section 7.6 and Section 8.5 as applicable and Interconnection Customer shall retain its Queue Position.

- 4.4.1** No later than forty (40) Calendar Days after the close of the DISIS Request Window and prior to the return of the executed Definitive Interconnection System Impact Study Agreement to Transmission Provider, the modifications permitted under this Section shall include specifically: (a) a decrease of up to sixty percent (60%) of electrical output (MW) of the proposed project, through either (1) a decrease in plant size, or (2) a decrease in Interconnection Service level (consistent with the process described in Section 3.1) accomplished by applying Transmission Provider-approved injection-limiting equipment; (b) modifying the technical parameters associated with the Large Generating Facility technology or the Large Generating Facility step-up transformer impedance characteristics; and (c) modifying the interconnection configuration. For plant increases, the incremental increase in plant output will go to the end of the Queue for the purposes of cost allocation and study analysis.
- 4.4.2** Prior to the return of the executed Interconnection Facilities Study Agreement to Transmission Provider, the modifications permitted under this Section shall include specifically: (a) fifteen percent (15%) decrease of electrical output of the proposed project through either (1) a decrease in in plant size (MW), or (2) a decrease in Interconnection Service level (consistent with the process described in Section 3.1) accomplished by applying Transmission Provider-approved injection-limiting equipment; (b) Large Generating Facility technical parameters associated with modifications to Large Generating Facility technology and transformer impedances; provided, however, the incremental costs associated with those modifications are the responsibility of the requesting Interconnection Customer; and (c) a Permissible Technological Advancement for the Large Generating Facility after the submission of the Interconnection Request. Section 4.4.6 specifies a separate technological change procedure including the requisite information and process that will be followed to assess whether the Interconnection Customer's proposed technological advancement under Section 4.4.2(c) is a Material Modification. Section 1 contains a definition of Permissible Technological Advancement.
- 4.4.3** Prior to making any modification other than those specifically permitted by Sections 4.4.1, 4.4.2, and 4.4.5, Interconnection Customer may first request that Transmission Provider evaluate whether such modification is a Material Modification. In response to Interconnection Customer's request, Transmission Provider shall evaluate the proposed modifications prior to making them and inform Interconnection Customer in writing of whether the modifications would constitute a Material Modification. Any change to the Point of Interconnection, except those deemed acceptable under Sections 4.4.1, or so allowed elsewhere, shall constitute a Material Modification. Interconnection Customer may then withdraw the



proposed modification or proceed with a new Interconnection Request for such modification.

**4.4.4** Upon receipt of Interconnection Customer's request for modification permitted under this Section 4.4, Transmission Provider shall commence and perform any necessary additional studies as soon as practicable, but in no event shall Transmission Provider commence such studies later than thirty (30) Calendar Days after receiving notice of the modification of Interconnection Customer's request. Any additional studies resulting from such modification shall be performed at Interconnection Customer's cost.

**4.4.5** Extensions of less than three (3) cumulative years in the Commercial Operation Date of the Generating Facility to which the Interconnection Request relates are not material and should be handled through construction sequencing. The initial requested Commercial Operation Date used for this calculation is determined from the date proposed in the initial Interconnection Request (Revised LGIP Appendix 1 Section 4.d). Such cumulative extensions are inclusive of extensions requested after execution by Interconnection Customer of the LGIA.

**4.4.6 Technological Change Procedure.**  
The technological change procedure included in this Section 4.4.6 will be followed to assess whether Interconnection Customer's proposed modification is a Material Modification.

**4.4.6.1 Technological Change Request.**

If an Interconnection Customer seeks to incorporate a technological advancement into its existing Interconnection Request, it must submit a Technological Change Request (TCR) as described below to the Transmission Provider in writing any time prior to the return of the signed Interconnection Facilities Study Agreement.

The Interconnection Customer's TCR shall include a description of the proposed change, a \$10,000 study deposit and the following information: may include—(1) updated technical data called for in Attachment A of Appendix 1; (2) type and specifications of equipment being replaced; updated modeling information; (3) make and model of new equipment; (4) dynamic, steady-state and performance characteristics of the new equipment; (5) efficiencies, impedances, and ratings of the equipment; (6) and technical analysis demonstrating that the technological change would (i) result in electrical performance that is equal to or better than the electrical performance expected prior to the technological change, and (ii) not cause any reliability concerns. a technical analysis of the advancement.—If

~~provided.~~ Ithe customer's analysis should contain engineering evidence and reasoning that clearly demonstrates the proposed change aligns with the definition of a Permissible Technological Advancement. Accordingly, a TCR should demonstrate that the proposed incorporation of the technological advancement would result in electrical performance that is equal to or better than the electrical performance expected prior to the technology change and would not cause any reliability concerns (i.e., would not materially impact the transmission system with regard to short circuit capability limits, steady-state thermal and voltage limits, or dynamic system stability and response).

Upon receipt by the Transmission Provider of a completed TCR from the Interconnection Customer, the Transmission Provider will evaluate the TCR to determine whether the TCR is a Permissible Technological Advancement or if it necessitates the performance of additional analyses and/or studies. If the technological change request has no adverse effect on electrical parameters or performance, the technological advancement request will not be considered a Material Modification and will be deemed a Permissible Technological Advancement.

If the Transmission Provider determines that additional analyses and/or studies are required, Transmission Provider's studies may include steady-state, reactive power, short circuit, stability analysis and any other appropriate studies that the Transmission Provider deems necessary based on the Transmission Provider's engineering judgment. These additional studies and/or analyses will determine whether the technological advancementchange results in electrical performance that is equal to or better than the electrical performance expected prior to the technological advancementchange request and be deemed a Permissible Technological Advancement, or if the technological advancementchange is deemed a Material Modification.

~~Should assessment of the TCR result in the need for studies, the Interconnection Customer shall complete its TCR by providing any additional information required to conduct the study and submit the completed TCR along with a deposit of \$10,000, so that the Transmission Provider may conduct studies to evaluate whether or not the technological advancement is permissible. Additional information required for study is dependent on the specific TCR and may include information such as: updated technical data called for in Appendix 1, Attachment A; type and specifications of equipment being replaced; make and model of new~~

~~equipment; specifications of new equipment; dynamic, steady-state and performance characteristics of the new equipment; and efficiencies, impedances, and ratings of the equipment.~~ Transmission Provider shall complete the evaluation as soon as practical but no later than thirty (30) Calendar Days after the receipt of the completed TCR.

~~Transmission Provider shall study the TCR by assessing the characteristics, or parameters, of the proposed technology against the technology being replaced in the existing model.~~

Transmission Provider will produce a report that will state if the technological advancement is permissible. If the proposed technology fails to meet the definition of a Permissible Technological Advancement, then the TCR is deemed to be a Material Modification. In such cases, the study report shall provide an explanation regarding why the technological ~~advancement~~ change is a Material Modification. The Interconnection Customer can choose to abandon the request and retain its queue position or choose to proceed with the request and reenter the queue with a new queue position.

If the study determines that the proposed technology meets the definition of a Permissible Technological Advancement the modification is approved and will be incorporated into the Interconnection Request. Study reports may be updated if appropriate. Once the Permissible Technological Advancement is approved and incorporated into the Interconnection Request; a new TCR would be required for the Interconnection Customer to revert back to the original equipment or make additional modifications to equipment.

Transmission Provider shall either refund any overage or charge for any shortage for costs of the study that exceed the deposit amount. The studies associated with the TCR shall be billed separately from other Interconnection Studies.

## **Section 5. Transition Procedures.**

### **5.1 Procedures for Transitioning to the First-Ready, First-Served Revised LGIP.**

- 5.1.1** An Interconnection Customer assigned a Queue Position prior to September 27, 2019, shall retain that Queue Position subject to the requirements in Sections 5.1.1.1 and 5.1.1.2. An Interconnection Customer that fails to meet these requirements shall have its Interconnection Request deemed withdrawn pursuant to Section 3.7. Any unused deposit

amounts of withdrawn Interconnection Requests shall be returned pursuant to Section 3.7. If an Interconnection Customer elects to continue with a Transitional Serial Interconnection Facilities Study or a Transitional Cluster Study as described below, Transmission Provider shall retain the current study deposits, and Interconnection Customer shall be responsible for the entire cost of all studies pursuant to Sections 4.2.3 and 12.3.

**5.1.1.1 Transitional Serial Projects.**

An Interconnection Customer that has a) a final System Impact Study Report that identifies facilities required to feasibly interconnect and b) an Interconnection Facilities Study Agreement that was executed prior to September 27, 2019, may opt to continue with the Interconnection Facilities Study process if the Interconnection Customer: (1) meets each of the following requirements that demonstrate readiness; and (2) executes a Transitional Serial Interconnection Facilities Study Agreement in the form of Appendix 4 to the Revised LGIP within thirty (30) Calendar Days of the Effective Date of this Revised LGIP. All of the following are required:

- a) A deposit on the Transmission Provider's Interconnection Facilities and Network Upgrades identified in the System Impact Study Report. The deposit shall be equal to one hundred percent (100%) of the costs identified for Transmission Provider's Interconnection Facilities and Network Upgrades in the System Impact Study Report and will be reconciled to actual costs after the associated facilities are in-service. If the Interconnection Customer does not withdraw, the deposit shall be reconciled with and applied towards future construction costs described in the LGIA. If the Interconnection Customer withdraws or otherwise does not reach Commercial Operation, the deposit is fully refundable once the final invoice for study costs and Withdrawal Penalty is settled. The deposit shall be in the form of an irrevocable letter of credit upon which the Transmission Provider may draw or cash where cash deposits will be treated according to Section 7.7.5.
- b) Exclusive Site Control for the entire Generating Facility and any Interconnection Customer's Interconnection Facilities.
- c) Interconnection Customer shall provide one following:

- i. A contract, binding upon the parties to the contract, for sale of the Generating Facility's energy, or the entire constructed Generating Facility; where the term of sale is not less than five (5) years, or
- ii. Reasonable evidence that the Generating Facility is included in an approved Resource Plan or Resource Solicitation Process, or
- iii. An executed Provisional Large Generator Interconnection Agreement filed with FERC. Such an agreement shall not be suspended and shall include a commitment to construct the Generating Facility.

All LGIA negotiations shall be completed and the LGIA executed (or filed unexecuted) within sixty (60) Calendar Days of the publication of the final Interconnection Facilities Study Report or the Interconnection Request shall be deemed withdrawn pursuant to Section 3.7 unless extended by mutual agreement of Transmission Provider and Interconnection Customer. A change in the Commercial Operation Date shall not delay the construction of facilities if such delay negatively affects lower or equal queued projects. If the Interconnection Customer withdraws or otherwise does not reach Commercial Operation, a Withdrawal Penalty equal to nine (9) times the Interconnection customer's total study cost is imposed.

#### **5.1.1.2 Combined System Impact and Interconnection Facilities Transitional Cluster Study.**

An Interconnection Customer with an assigned Queue Position prior to September 27, 2019, may opt to enter the combined system impact and interconnection facilities transitional cluster study ("Transitional Cluster Study") if the Interconnection Customer: (1) meets each of the following requirements that demonstrate readiness; and (2) executes a Transitional Cluster Study Agreement in the form of Appendix 5.1 to the Revised LGIP within thirty (30) Calendar Days of the Effective Date of this Revised LGIP. All Interconnection Requests that enter the Transitional Cluster Study shall be considered to have an equal Queue Position, and identified upgrade costs shall be allocated according to Section 4.2.4 of the Revised LGIP. The Transitional Cluster Study costs shall be allocated according to the method described in Section 4.2.3. Interconnection Customer may make a one-time extension to its requested Commercial

Operation date upon entry into the Transitional Cluster Study and such an extension shall not be past 2023.

All of the following are required:

- a) Choice of requesting either ERIS or NRIS
- b) A deposit on the Transmission Provider's Interconnection Facilities and Network Upgrades expected to be identified in the Transitional Cluster Study. The deposit shall be equal to five million dollars (\$5,000,000) and be in the form of an irrevocable letter of credit upon which the Transmission Provider may draw or cash where cash deposits will be treated according to Section 7.7.5. If the Interconnection Customer does not withdraw, the deposit shall be reconciled with and applied towards future construction costs described in the LGIA. Any amounts in excess of the actual construction costs shall be returned to the customer. If the Interconnection Customer withdraws or otherwise does not reach Commercial Operation, the deposit is fully refundable once the final invoice for study costs and Withdrawal Penalty is settled.
- c) Exclusive Site Control for the entire Generating Facility.
- d) Interconnection Customer shall provide one following:
  - i. A contract, binding upon the parties to the contract, for sale of the Generating Facility's energy, or the entire constructed Generating Facility; where the term of sale is not less than five (5) years, or
  - ii. Reasonable evidence that the Generating Facility is included in an approved Resource Plan or Resource Solicitation Process, or
  - iii. An executed Provisional Large Generator Interconnection Agreement filed with FERC that is not in suspension with 1) a commitment to construct the facility, 2) a Commercial Operation Date no later than 2023 and 3) a security deposit in addition to the five million dollars identified in 5.1.1.2.a where the total security deposit represents a reasonable estimation of the potential costs that could be ultimately allocated to the project in the transitional cluster study.

After the Transitional Cluster Study report is published, the remaining process shall proceed according to Section 10 of this Revised LGIP. All LGIA negotiations shall be completed and the LGIA executed (or filed unexecuted) within sixty (60) Calendar Days of the tender of the draft LGIA or the Interconnection Request is deemed withdrawn unless extended by mutual agreement of Transmission Provider and Interconnection Customer. A change in the Commercial Operation Date shall not delay the construction of Transmission Provider's Interconnection Facilities or Network Upgrades if such delay negatively affects lower or equal queued projects.

If the Interconnection Customer withdraws or otherwise does not reach Commercial Operation, a Withdrawal Penalty equal to nine (9) times the Interconnection customer's total study cost is imposed.

## **5.2 New Transmission Provider.**

If Transmission Provider transfers control of its Transmission System to a successor Transmission Provider during the period when an Interconnection Request is pending, the original Transmission Provider shall transfer to the successor Transmission Provider any amount of the deposit or payment with interest thereon that exceeds the cost that it incurred to evaluate the request for interconnection. Any difference between such net amount and the deposit or payment required by this Revised LGIP shall be paid by or refunded to the Interconnection Customer, as appropriate. The original Transmission Provider shall coordinate with the successor Transmission Provider to complete any Interconnection Study, as appropriate, that the original Transmission Provider has begun but has not completed.

If original Transmission Provider has tendered a draft LGIA to Interconnection Customer, but Interconnection Customer has not either executed the LGIA or requested the filing of an unexecuted LGIA with FERC, unless otherwise provided, Interconnection Customer must complete negotiations with the successor Transmission Provider.

## **Section 6. Informational Interconnection Study.**

### **6.1 Informational Interconnection Study Agreement.**

At any time, a customer may request, and Transmission Provider (either itself or through a consultant) shall perform a reasonable number of Informational Interconnection Studies. Provisional Interconnection Service maybe requested based on the results of the Informational Interconnection Study. Interconnection Customer shall submit a separate Informational Interconnection Request for each site and may submit multiple Informational Interconnection Requests for a single site. Interconnection Customer must submit a deposit with each Informational Interconnection Request even when more than one request is submitted for a



single site. An Informational Interconnection Request to evaluate one site at two different voltage levels shall be treated as two Informational Interconnection Requests. The request shall use the form in Appendix 5.4 of the Revised LGIP and shall describe the assumptions that Interconnection Customer wishes Transmission Provider to study within the scope described in Section 6.2 of the Revised LGIP below. Within five (5) Business Days after receipt of a request for an Informational Interconnection Study, Transmission Provider shall provide to Interconnection Customer an Informational Interconnection Study Agreement in the form of Appendix 5.5.

The Informational Interconnection Study Agreement shall: (i) include the scope of work for the Informational Interconnection Study (ii) specify the technical data that Interconnection Customer must provide, (iii) specify the Informational Interconnection Study case and assumptions, and (iv) identify the Transmission Provider's estimate of the cost of the Informational Interconnection Study. To the extent known by Transmission Provider, such estimate shall include any costs expected to be incurred by any Affected System whose participation is necessary to complete the Informational Interconnection Study. Notwithstanding the above, Transmission Provider shall not be required as a result of an Informational Interconnection Study request to conduct any additional Interconnection Studies with respect to any other Interconnection Request.

Interconnection Customer shall execute the Informational Interconnection Study Agreement within ten (10) Business Days of receipt of an agreed upon scope of work and deliver the Informational Interconnection Study Agreement, the technical data, and a \$10,000 deposit to Transmission Provider.

## **6.2 Scope of Informational Interconnection Study.**

The intent of the Informational Interconnection Study is to aid Interconnection Customer in its business decisions related to interconnection of generation facilities prior to entering the Definitive Interconnection Process. The Informational Interconnection Study shall consist of analysis based on the assumptions and scope of work specified by Interconnection Customer in the Informational Interconnection Study Agreement. The Informational Interconnection Study shall identify the potential Transmission Provider's Interconnection Facilities and the Network Upgrades, and the estimated cost thereof, that may be required to provide transmission service or Interconnection Service based upon the results and assumptions of the Informational Interconnection Study. The Informational Interconnection Study shall be performed solely for informational purposes. Transmission Provider shall use Reasonable Efforts to coordinate the study with any Affected Systems that may be affected by the types of Interconnection Services that are being studied. Transmission Provider shall utilize existing studies to the extent practicable in conducting the Informational Interconnection Study.

## **6.3 Informational Interconnection Study Procedures.**

The executed Informational Interconnection Study Agreement, the deposit, and technical and other data called for therein must be provided to Transmission



Provider within ten (10) Business Days of Interconnection Customer receipt of the Informational Interconnection Study Agreement. Transmission Provider shall use Reasonable Efforts to complete the Informational Interconnection Study within a mutually agreed upon time period specified within the Informational Interconnection Study Agreement. If Transmission Provider is unable to complete the Informational Interconnection Study within such time period, it shall notify Interconnection Customer and provide an estimated completion date and an explanation of the reasons why additional time is required. Any difference between the study payment and the actual cost of the study shall be paid to Transmission Provider or refunded to Interconnection Customer, as appropriate. Upon request, Transmission Provider shall provide Interconnection Customer supporting documentation and work papers and databases or data developed in the preparation of the Informational Interconnection Study, subject to confidentiality arrangements consistent with Section 12.1.

## **Section 7. Phase 1 through 3 of the Definitive Interconnection Study Process.**

### **7.1 Definitive Interconnection System Impact Study Agreement.**

Unless otherwise agreed, pursuant to the Scoping Meeting provided for in Section 3.4.4, within thirty (30) Calendar Days acknowledgement of a valid Interconnection Request indicating that a Definitive Interconnection System Impact Study is to be performed, Transmission Provider shall provide to Interconnection Customer a DISIS Agreement in the form of Appendix 2 to this Revised LGIP. The DISIS Agreement shall provide that Interconnection Customer shall compensate Transmission Provider for the actual cost of the DISIS. At least seven (7) Calendar Days before the close of a Customer Engagement Window, Transmission Provider shall provide to Interconnection Customer a non-binding updated good faith estimate of the cost and timeframe for completing the Definitive Interconnection System Impact Study.

### **7.2 Execution of Definitive Interconnection System Impact Study Agreement.**

Interconnection Customer shall execute the DISIS Agreement and deliver the executed DISIS Agreement to Transmission Provider no later than the close of the Customer Engagement Window.

### **7.3 Scope of Definitive Interconnection System Impact Study.**

The Definitive Interconnection System Impact Study shall evaluate the impact of the proposed interconnection on the reliability of the Transmission System. The Definitive Interconnection System Impact Study will consider the Base Case as well as all generating facilities (and with respect to (iii) below, any identified Network Upgrades associated with such higher queued requests) that, on the date the DISIS Request Window closes: (i) are existing and directly interconnected to the Transmission System; (ii) are existing and interconnected to Affected Systems and may have an impact on the Interconnection Request; (iii) have a pending higher queued Interconnection Request to interconnect to the Transmission System; and (iv) have no Queue Position but have executed an LGIA or requested that an unexecuted LGIA be filed with FERC. Generating facilities with pending higher or equal queued NRIS requests, or requests

associated with Firm Transmission Service shall generally be modeled at full output while existing generation may be re-dispatched to accommodate new requests in the model. Higher queued ERS requests or in-service ERS generators without associated Firm Transmission Service may be dispatched at zero in some study models. If the total requests for NRS in a Cluster exceeds or otherwise cannot be sunk to the Network Load projected in the Base Case, such exceedance shall be assumed to be delivered outside of the Transmission System. In-service generation in the study model may be re-dispatched in the DISIS, but generally will not be studied at less than its minimum operating limit unless the generation owner agrees the Generating Facility should be modeled as if retired. Existing generation dispatch will be used, for instance, to maintain reliability and stress the system as appropriate.

As discussed in more detail in Section 7.4 below, the Definitive Interconnection System Impact Study is a phased study where the first phase (Phase 1) consists of a power flow and voltage analysis that is followed by a phase (Phase 2) that consists of a short circuit analysis and a stability analysis. Any DISIS re-studies (Phase 3) shall consist of a power flow/voltage analysis, a short circuit analysis, and/or a stability analysis as needed. The Definitive Interconnection System Impact Study report will state the assumptions upon which it is based; state the results of the analyses; and provide the requirements or potential impediments to providing the requested interconnection service, including a preliminary indication of the cost and length of time that would be necessary to correct any problems identified in those analyses and implement the interconnection. For purposes of determining necessary Interconnection Facilities and Network Upgrades, the Definitive Interconnection System Impact Study shall consider the level of Interconnection Service requested by the Interconnection Customer, unless otherwise required to study the full Generating Facility Capacity due to safety or reliability concerns. The Definitive Interconnection System Impact Study will provide a list of facilities that are required as a result of the Interconnection Request and a non-binding good faith estimate of cost responsibility and a non-binding good faith estimated time to construct.

#### **7.4 Definitive Interconnection System Impact Study Procedures.**

Transmission Provider shall coordinate the Definitive Interconnection System Impact Study with any Affected System that is affected by the Interconnection Request pursuant to Section 3.6 above. Transmission Provider shall utilize existing studies to the extent practicable when it performs the DISIS. Interconnection Requests for DISIS may be submitted only within the DISIS Request Window and Transmission Provider shall initiate the Definitive Interconnection Study Process pursuant to Section 4.2.1.

The diagrams attached as Appendix A-2 provides an overview and timeline of the Definitive Interconnection Study Process, including the Phases and milestones associated with the Definitive Interconnection System Impact Study.

- a. The DISIS Cluster shall consist of all eligible Interconnection Requests that have executed a DISIS Agreement and have provided all required information

before the close of the Customer Engagement Window. Transmission Provider shall use Reasonable Efforts to complete the first phase (Phase 1) consisting of a power flow and voltage analysis within ninety (90) Calendar Days. The Phase 1 Report shall identify Transmission Provider's Interconnection Facilities and Transmission Provider's Network Upgrades that are expected to be required as a result of the Interconnection Request(s) and a non-binding good-faith indicative level estimate of cost responsibility and a non-binding good-faith estimated time to construct. Transmission Provider shall hold an open stakeholder meeting ("Phase 1 Report Meeting") within ten (10) Business Days of publishing the DISIS Phase 1 results on OASIS.

- b. Within twenty (20) Calendar Days of the Phase 1 Report Meeting, all Interconnection Customers are required to provide Readiness Milestone 2 ("M2") and continued evidence of Site Control as described in Section 7.7. Interconnection Customers that do not provide the Readiness Milestone (or provide security *in lieu* of the Readiness Milestone) or do not provide Site Control described in Section 7.7.7. by the required date shall be deemed withdrawn from the Queue pursuant to Section 3.7.
- c. Interconnection Customers whose M2 and Site Control are accepted by Transmission Provider shall continue in to the second phase ("Phase 2") of the Definitive Interconnection System Impact Study. Phase 2 consists of an updated power flow/voltage analysis (if necessary), stability analysis and short circuit analysis for the Interconnection Customers remaining in the DISIS Cluster. Transmission Provider shall use Reasonable Efforts to complete the Phase 2 analysis within one hundred fifty (150) Calendar Days. The results of this analysis shall identify Transmission Provider's Interconnection Facilities and Transmission Provider's Network Upgrades expected to be required to reliably interconnect the Generating Facilities in that DISIS Cluster at the requested Interconnection Service level and shall provide non-binding estimates for required upgrades. The Phase 2 Report shall identify each Interconnection Customer's estimated allocated costs for Transmission Provider's Interconnection Facilities and Transmission Provider's Network Upgrades. Transmission Provider shall hold an open stakeholder meeting ("Phase 2 Report Meeting") within ten (10) Business Days of publishing the DISIS Phase 2 results on OASIS.
- d. Within twenty (20) Calendar Days of the Phase 2 Report Meeting, each Interconnection Customer is required to provide Readiness Milestone 3 ("M3") and additional evidence of Site Control described in Section 7.7.7. Milestones for the Definitive Interconnection Study Process are described in Section 7.7. Interconnection Customers that do not provide the Readiness Milestone (or provide security *in lieu* of the Readiness Milestone) or do not provide Site Control described in Section 7.7.7. by the required date shall be deemed withdrawn from the Queue pursuant to Section 3.7.

- i. If all Interconnection Customers in the Cluster provide M3 and no Interconnection Customers withdraw from the Queue at this stage, the Definitive Interconnection Study Process advances to the Interconnection Facilities Study (Section 7.4.g). Transmission Provider shall electronically notify Interconnection Customers in the Cluster that Phase 3 is not required and simultaneously provide the Interconnection Facilities Agreement in the form of Appendix 3.
  - ii. If one or more Interconnection Customer withdraws from the Cluster, Transmission Provider shall determine if a full system impact re-study is necessary. If Transmission Provider determines a re-study is not necessary and Phase 3 is not required, Transmission Provider shall provide an updated Phase 2 Report within thirty (30) Calendar Days of such determination and the Definitive Interconnection Study Process advances to the Interconnection Facilities Study (Section 7.4.g). When the updated Phase 2 report is issued, Transmission Provider shall electronically notify Interconnection Customers in the Cluster that Phase 3 is not required and simultaneously provide the Interconnection Facilities Agreement in the form of Appendix 3.
  - iii. If one or more Interconnection Customers withdraws from the Cluster and Transmission Provider determines a full system impact re-study is necessary, Transmission Provider will continue with System Impact re-studies ("Phase 3") as described in Section 7.4.e below, until Transmission Provider determines that no further re-studies are required. If a customer withdraws after Section 7.4.d.i or Section 7.4.d.ii or during the Interconnection Facilities Study and Transmission Provider determines system impact level studies are necessary, the Cluster shall be restudied under the terms of Phase 3. Transmission Provider shall electronically notify Interconnection Customers in the Cluster and post on OASIS that a re-study is required. Interconnection Customers that have elected NRIS may make a onetime change between Phase 2 and Phase 3 (before the re-study starts) to ERIS if they notify Transmission Provider of such change in election within five (5) Business Days of the Transmission Provider's notification the first re-study is required.
- e. Interconnection Customers whose M3 and additional evidence of Site Control is accepted by Transmission Provider shall continue with the third phase ("Phase 3") of the Definitive Interconnection System Impact Study. Phase 3 may consist of updated power flow/voltage analysis, stability analysis, and/or short circuit analysis if necessary for the Interconnection Customers remaining in the Cluster. Transmission Provider shall use Reasonable Efforts to complete the Phase 3 analysis within one hundred fifty (150) Calendar Days. The results of this analysis shall identify Transmission Provider's Interconnection Facilities and Transmission Provider's Network Upgrades expected to be required to reliably interconnect the Generating Facilities in that Cluster at the requested Interconnection Service level and shall provide non-binding estimates for required upgrades. The Phase 3 Report shall

identify each Interconnection Customer's estimated allocated costs for Transmission Provider's Interconnection Facilities and Transmission Provider's Network Upgrades. Transmission Provider shall hold an open stakeholder meeting ("Phase 3 Report Meeting") within ten (10) Business Days of publishing the DISIS Phase 3 results on OASIS. If additional re-studies are required before moving to Phase 4 below, within twenty (20) Calendar Days of the Phase 3 Report Meeting (or Phase 3 Updated Report Meeting), all Interconnection Customers are required to provide an updated Readiness Milestone 3 ("M3"). Readiness Milestones for the Definitive Interconnection Study Process are described in Section 7.7. Interconnection Customers that do not provide the Readiness Milestone ( or provide security *in lieu* of the Readiness Milestone) or do not provide Site Control described in Section 7.7.7. by the required date shall be deemed withdrawn from the Queue pursuant to Section 3.7. Transmission Provider shall electronically notify Interconnection Customers in the Cluster when no further re-studies are required and simultaneously provide the Interconnection Facilities Agreement in the form of Appendix 3.

- f. Within twenty (20) Calendar Days of the notice that no System Impact re-studies are needed, each Interconnection Customer is required to provide Readiness Milestone 4 ("M4"), Site Control requirements described in Section 7.7.7, and an executed Interconnection Facilities Agreement in the form of Appendix 3 (completed and including all required data identified therein). Readiness Milestones for the Definitive Interconnection System Process are described in Section 7.7. Interconnection Customers that do not provide the Readiness Milestone ( or provide security *in lieu* of the Readiness Milestone) or do not provide Site Control described in Section 7.7.7. by the required date shall be deemed withdrawn from the Queue pursuant to Section 3.7.
- g. Twenty (20) Calendar Days after the notice that no further Re-Studies are needed, Transmission Provider shall proceed with the Interconnection Facilities Study phase ("Phase 4") of the Definitive Study Process, described in detail in Section 8 below. An additional study deposit is not required for Phase 4.

At the request of Interconnection Customer or at any time Transmission Provider determines that it will not meet the indicated timeframe for completing the DISIS, Transmission Provider shall notify Interconnection Customer(s) as to the schedule status of the DISIS Cluster. If Transmission Provider is unable to complete the DISIS within the time period, it shall notify Interconnection Customer(s) and provide an estimated completion date with an explanation of the reasons why additional time is required.

Upon request, Transmission Provider shall provide Interconnection Customer all supporting documentation, workpapers, and relevant pre-Interconnection Request and post-Interconnection Request power flow, short circuit and stability databases for the DISIS, subject to confidentiality arrangements consistent with Section 12.1.



**7.5 Meeting with Transmission Provider.**

Within ten (10) Business Days of furnishing a DISIS study report to Interconnection Customer and posting the report on OASIS, Transmission Provider shall convene an open meeting to discuss the study results. Transmission Provider shall, upon request, also make itself available to meet with individual Interconnection Customers after the study report is provided.

**7.6 Re-Study.**

If Re-Study of the Definitive Interconnection System Impact Study other than the re-study described above in 7.4.e is required due to a higher or equal priority queued project dropping out of the Queue, or a modification of a higher queued project subject to Section 4.4, Transmission Provider shall notify Interconnection Customer(s) in writing. The Transmission Provider shall make Reasonable Efforts to ensure such Re-Study take no longer than one hundred fifty (150) Calendar Days from the date of notice. Any cost of Re-Study shall be borne by Interconnection Customer(s) being re-studied.

**7.7 Readiness Milestones and Site Control.**

Readiness Milestones are required throughout the Definitive Interconnection Study Process to demonstrate readiness. A customer that does not sufficiently demonstrate readiness by providing a Readiness Milestones is subject to withdrawal as described in Section 3.7 which may include additional penalties.

There are three Readiness Milestone options that demonstrate readiness through the study process (i.e. for Readiness Milestones 1 (M1) through Readiness Milestones 4 (M4).

**7.7.1 Readiness Milestone 1 (“M1”).**

M1 is satisfied by any one of the three options below (also described in 3.4.1.f) at Interconnection Customer’s option. M1 may also be satisfied by providing additional security described in Section 7.7.5 below *in lieu* of providing one of the three options to demonstrate readiness.

- a) Executed term sheet (or comparable evidence) related to a contract, binding upon the parties to the contract, for sale of (i) the constructed Generating Facility, (ii) the Generating Facility’s energy, or (iii) the Generating Facility’s ancillary services if the Generating Facility is an electric storage resource; where the term of sale is not less than five (5) years.
- b) Reasonable evidence the project has been selected in a Resource Plan or Resource Solicitation Process; or
- c) Provisional Large Generator Interconnection Agreement accepted for filing at FERC. Such an agreement shall not be

suspended and shall include a commitment to construct the Generating Facility.

**7.7.2 Readiness Milestone 2 (“M2”).**

M2 is satisfied by any one of the three options below at Interconnection Customer’s option. M2 may also be satisfied by providing additional security as described in Section 7.7.5 *in lieu* of providing one of the three options to demonstrate readiness.

- a) Executed term sheet (or comparable evidence) related to a contract, binding upon the parties to the contract, for sale of (i) the constructed Generating Facility, (ii) the Generating Facility’s energy, or (iii) the Generating Facility’s ancillary services if the Generating Facility is an electric storage resource; where the term of sale is not less than five (5) years.
- b) Reasonable evidence that the project has been selected in a Resource Plan or Resource Solicitation Process; or
- c) Provisional Large Generator Interconnection Agreement accepted for filing at FERC. Such an agreement shall not be suspended and shall include a commitment to construct the Generating Facility.

**7.7.3 Readiness Milestone 3 (“M3”).**

M3 is satisfied by any one of the three options below at Interconnection Customer’s option. M3 may also be satisfied by providing additional security described in Section 7.7.5 *in lieu* of providing one of the three options to demonstrate readiness.

- a) Executed contract, binding upon the parties to the contract, for sale of (i) the constructed Generating Facility, (ii) the Generating Facility’s energy, or (iii) the Generating Facility’s ancillary services if the Generating Facility is an electric storage resource; where the term of sale is not less than five (5) years.
- b) Reasonable evidence that the project has been selected in an approved Resource Plan or Resource Solicitation Process; or
- c) An unsuspended Provisional Large Generator Interconnection Agreement accepted for filing by FERC with reasonable evidence that the Generating Facility and Interconnection Facilities have commenced design and engineering.

**7.7.4 Readiness Milestone 4 (“M4”).**

M4 is satisfied by any one of the three options below at Interconnection Customer’s option. M4 may also be satisfied by

providing additional security as described in Section 7.7.5 below *in lieu* of providing one of the three options to demonstrate readiness.

- a) Executed contract, binding upon the parties to the contract, for sale of (i) the constructed Generating Facility, (ii) the Generating Facility's energy, or (iii) the Generating Facility's ancillary services and capacity if the Generating Facility is an electric storage resource; where the term of sale is not less than five (5) years;
- b) Reasonable evidence that the project has been selected in an approved Resource Plan or Resource Solicitation Process; or
- c) An unsuspended Provisional Large Generator Interconnection Agreement accepted for filing by FERC with reasonable evidence that the Generating Facility and Interconnection Facilities have commenced construction.

#### **7.7.5 Security Requirements.**

A table showing the security required in each milestone is provided in Appendix A-2. The security amount is dependent on if the customer provided a Readiness Milestone and the study phase the customer is entering. All security described below shall be in the form of an irrevocable letter of credit upon which Transmission Provider may draw or cash. The security is refunded to the Interconnection Customer upon withdrawal, LGIA termination, or Commercial Operation after any final invoice is settled. If cash is provided as security, it shall be refunded plus interest, where the interest is calculated in accordance with the methodology set forth in FERC's regulations at 18 CFR § 35.19a(a)(2)(iii) from the date the security is received to the date that it is refunded. Security may be drawn upon if costs under this LGIP including the LGIA remain unpaid as per this Revised LGIP and the attached LGIA.

As part of a valid interconnection request all Interconnection Customers must provide security equal to the study deposit amount as described in Section 3.4.1.h. The security provided in Section 3.1.4.h will be applied towards the amount of security required for M5.

An Interconnection Customer may opt to provide security *in lieu* of providing Readiness Milestones 1 through 4, as described above in Sections 7.7.1, 7.7.2, 7.7.3, and 7.7.4. The security provided is applied towards the security amount required for each successive milestone if the Interconnection Customer does not withdraw from the queue. For example, the security provided for M2 is applied to the amount of security required for M3.

*In lieu* of providing a demonstration of readiness for Milestones 1 through 4, the amount of security required is a multiple of the study



deposit described in Section 3.1 and is in addition to the security required for all Interconnection Customers under Sections 3.4.1.h. The additional amount of security required for each milestone for Interconnection Customers that do not provide a demonstration of readiness is:

M1 = 1 times the study deposit amount

M2 = 2 times the study deposit amount

M3 = 4 times the study deposit amount

M4 = 6 times the study deposit amount

For clarity, the total (i.e. inclusive of the security required under Section 3.4.1.h) amount of security required for each milestone for Interconnection Customers that do not provide a demonstration of readiness is:

M1 = 2 times the study deposit amount

M2 = 3 times the study deposit amount

M3 = 5 times the study deposit amount

M4 = 7 times the study deposit amount

All Interconnection Customers are required to provide security in order to satisfy Readiness Milestone 5 (M5) when the LGIA is executed as described in Section 10.3. The amount of security required for M5 is equal to nine (9) times the Interconnection Customer's share of the Definitive Interconnection Study Process study costs. If this amount is not known, the study deposit amount shall be used as an estimate of study cost until such amounts are known. If initially estimated, M5 shall be updated when the final invoice for actual study costs is issued. As this M5 amount is the total security required to satisfy Readiness Milestone 5, any security provided pursuant to Sections 3.4.1.h, 7.7.5.a, 7.7.5.b, 7.7.1, 7.7.2, 7.7.3, and 7.7.4 shall be applied towards the Readiness Milestone 5 amount when the LGIA is executed. The Interconnection Customer shall only be responsible to provide the incremental amount of security to the Transmission Provider and any excess security provided shall be refunded to the Interconnection Customer. Transmission Provider shall refund all security provided under this section to the Interconnection Customer upon achieving Commercial Operation.

#### **7.7.6 Site Control.**

In addition to the above Readiness Milestones, Site Control is required to determine increased readiness through the Definitive Interconnection Study Process. Additional information on Site Control is posted on Transmission Provider's OASIS.

- a) Before entering Phase 1 (concurrent with M1) demonstration of 50% Site Control and 0% Site Control of Interconnection Customer's Interconnection Facilities is required.
- b) Before entering Phase 2 (concurrent with M2): continued demonstration of 50% Site Control and 0% Site Control of Interconnection Customer's Interconnection Facilities is required.
- c) Before entering Phase 3 (concurrent with M3): demonstration of 60% Site Control and 0% Site Control of Interconnection Customer's Interconnection Facilities is required.
- d) Before entering Phase 4 (concurrent with M4): demonstration of 75% Site Control and 0% Site Control of Interconnection Customer's Interconnection Facilities is required.
- e) Before executing an LGIA (concurrent with M5): demonstration of 90% Site Control and 50% Site Control of Interconnection Customer's Interconnection Facilities is required.

## **Section 8. Interconnection Facilities Study.**

### **8.1 Interconnection Facilities Study Agreement.**

Simultaneously with the notice to Interconnection Customer(s) that Phase 3 is complete or not required, Transmission Provider shall provide to Interconnection Customer an Interconnection Facilities Study Agreement in the form of Appendix 3 to this Revised LGIP. Within five (5) Business Days following the open DISIS results (Phase 2 or Phase 3) meeting, Transmission Provider shall provide to Interconnection Customer a non-binding good faith estimate of the cost and timeframe for completing the Interconnection Facilities Study. The Interconnection Facilities Study Agreement shall provide that Interconnection Customer shall compensate Transmission Provider for the actual cost of the Interconnection Facilities Study. Interconnection Customer shall execute the Interconnection Facilities Study Agreement and deliver the executed Interconnection Facilities Study Agreement to Transmission Provider within twenty (20) Calendar Days after its receipt, together with the required technical data, Readiness Milestone 4 and the Site Control requirements described in Section 7.7.7. Interconnection Customers that do not provide the Readiness Milestone (or additional security *in lieu* of the Readiness Milestone) and provide Site Control described in Section 7.7.7. by the required date shall be deemed withdrawn from the Queue pursuant to Section 3.7.

## **8.2 Scope of Interconnection Facilities Study.**

The Interconnection Facilities Study shall specify and provide a non-binding estimate of the cost of the equipment, engineering, procurement and construction work needed to implement the conclusions of the final Phase 2 or Phase 3 Report (as appropriate) in accordance with Good Utility Practice to physically and electrically connect the Interconnection Facilities to the Transmission System. The Interconnection Facilities Study shall also identify the electrical switching configuration of the connection equipment, including, without limitation: the transformer, switchgear, meters, and other station equipment; the nature and estimated cost of any Transmission Provider's Interconnection Facilities and Network Upgrades necessary to accomplish the interconnection; and an estimate of the time required to complete the construction and installation of such facilities.

The Interconnection Facilities Study will also identify any potential control equipment for requests for Interconnection Service that are lower than the Generating Facility Capacity.

## **8.3 Interconnection Facilities Study Procedures.**

- a. Transmission Provider shall coordinate the Interconnection Facilities Study with any Affected System pursuant to Section 3.6 above. Transmission Provider shall utilize existing studies to the extent practicable in performing the Interconnection Facilities Study. Transmission Provider shall use Reasonable Efforts to complete the study and issue a draft Interconnection Facilities Study report to Interconnection Customer within ninety (90) Calendar Days after acceptance of the Interconnection Facilities Agreement and Readiness Milestone 4.
- b. At the request of Interconnection Customer Transmission Provider shall notify Interconnection Customer as to the schedule status of the Interconnection Facilities Study. If Transmission Provider is unable to complete the Interconnection Facilities Study and issue a draft Interconnection Facilities Study report within the time identified, it shall notify Interconnection Customer and provide an estimated completion date and an explanation of the reasons why additional time is required.
- c. Interconnection Customer may, within thirty (30) Calendar Days after receipt of the draft Interconnection Facilities Study report, provide written comments to Transmission Provider, which Transmission Provider shall consider in completing the final Interconnection Facilities Study report. Transmission Provider shall issue the final Interconnection Facilities Study report within fifteen (15) Business Days of receiving Interconnection Customer's comments or promptly upon receiving Interconnection Customer's statement that it will not provide comments. Transmission Provider may reasonably extend such fifteen (15) Business Day period upon notice to Interconnection Customer if Interconnection Customer's comments require Transmission Provider to perform additional analyses or make other significant modifications prior to the

issuance of the final Interconnection Facilities Study report. Upon request, Transmission Provider shall provide Interconnection Customer supporting documentation, workpapers, and databases or data developed in the preparation of the Interconnection Facilities Study, subject to confidentiality arrangements consistent with Section 12.1.

**8.4 Meeting with Transmission Provider.**

Within ten (10) Business Days of providing a draft Interconnection Facilities Study report to Interconnection Customer, Transmission Provider and Interconnection Customer shall meet to discuss the results of the Interconnection Facilities Study.

**8.5 Re-Study.**

If Re-Study of the Interconnection Facilities Study is required due to a higher or equal priority queued project dropping out of the Queue or a modification of a higher queued project pursuant to Section 4.4, Transmission Provider shall so notify Interconnection Customer in writing. The Transmission Provider shall make Reasonable Efforts to ensure such Re-Study take no longer than sixty (60) Calendar Days from the date of notice. Re-Studies that require rerunning the system impact study analysis may take longer than sixty days. Any cost of Re-Study shall be borne by the Interconnection Customer(s) being re-studied.

**Section 9. Engineering & Procurement (“E&P”) Agreement.**

Prior to executing an LGIA, an Interconnection Customer may, in order to advance the implementation of its interconnection, request and Transmission Provider shall offer the Interconnection Customer, an E&P Agreement that authorizes Transmission Provider to begin engineering and procurement of long lead-time items necessary for the establishment of the interconnection. However, Transmission Provider shall not be obligated to offer an E&P Agreement if Interconnection Customer is in Dispute Resolution as a result of an allegation that Interconnection Customer has failed to meet any Readiness Milestones or comply with any prerequisites specified in other parts of the Revised LGIP. The E&P Agreement is an optional procedure and it will not alter the Interconnection Customer's Queue Position or In-Service Date. The E&P Agreement shall provide for Interconnection Customer to pay the cost of all activities authorized by Interconnection Customer and to make advance payments or provide other satisfactory security for such costs.

Interconnection Customer shall pay the cost of such authorized activities and any cancellation costs for equipment that is already ordered for its interconnection, which cannot be mitigated as hereafter described, whether or not such items or equipment later become unnecessary. If Interconnection Customer withdraws its application for interconnection or either Party terminates the E&P Agreement, to the extent the equipment ordered can be canceled under reasonable terms, Interconnection Customer shall be obligated to pay the associated cancellation costs. To the extent that the equipment cannot be reasonably canceled, Transmission Provider may elect: (i) to take title to the equipment, in which event

Transmission Provider shall refund Interconnection Customer any amounts paid by Interconnection Customer for such equipment and shall pay the cost of delivery of such equipment, or (ii) to transfer title to and deliver such equipment to Interconnection Customer, in which event Interconnection Customer shall pay any unpaid balance and cost of delivery of such equipment.

## **Section 10. Standard Large Generator Interconnection Agreement (LGIA).**

### **10.1 Tender.**

Interconnection Customer shall tender comments on the draft Interconnection Facilities Study Report within thirty (30) Calendar Days of receipt of the report. Within thirty (30) Calendar Days after the comments are submitted or after the Interconnection Customer notifies Transmission Provider that it will provide no comments, Transmission Provider shall tender a draft LGIA, together with draft appendices. The draft LGIA shall be in the form of Transmission Provider's FERC-approved standard form LGIA, which is in Appendix 6. Interconnection Customer shall return the completed draft appendices and execute the LGIA within thirty (30) Calendar Days unless the sixty (60) Calendar Day negotiation period under Section 10.2 has commenced.

### **10.2 Negotiation.**

Notwithstanding Section 10.1, at the request of Interconnection Customer, Transmission Provider shall begin negotiations with Interconnection Customer concerning the appendices to the LGIA at any time after Interconnection Customer executes the Interconnection Facilities Study Agreement. Transmission Provider and Interconnection Customer shall negotiate concerning any disputed provisions of the appendices to the draft LGIA for not more than sixty (60) Calendar Days after tender of the final Interconnection Facilities Study Report. If Interconnection Customer determines that negotiations are at an impasse, Interconnection Customer may request termination of the negotiations at any time after tender of the draft LGIA pursuant to Section 10.1 and request submission of the unexecuted LGIA with FERC or initiate Dispute Resolution procedures pursuant to Section 12.5. If Interconnection Customer requests termination of the negotiations, but within sixty (60) Calendar Days thereafter fails to request either the filing of the unexecuted LGIA or initiate Dispute Resolution, it shall be deemed to have withdrawn its Interconnection Request. Unless otherwise agreed by the Parties, if Interconnection Customer has not executed the LGIA, requested filing of an unexecuted LGIA, or initiated Dispute

Resolution procedures pursuant to Section 12.5 within sixty (60) Calendar Days of tender of draft LGIA, it shall be deemed to have withdrawn its Interconnection Request. Transmission Provider shall provide to Interconnection Customer a final LGIA within fifteen (15) Business Days after the completion of the negotiation process.

### **10.3 Execution and Filing.**

Within fifteen (15) Business Days after receipt of the final LGIA, Interconnection Customer shall (a) provide reasonable evidence that continued Site Control as

defined in Section 7.7.7 and (b) post Readiness Milestone 5 (security equal to nine (9) times that Interconnection Customer's share of the Definitive Interconnection Study Process study costs. If the actual study costs are not known at the time, study costs shall be estimated as the study deposit described in Section 3.1, and the M5 amount shall be updated when the study costs are known. If the Interconnection Customer does not reach Commercial Operation, upon payment of any final invoice, including any Withdrawal Penalty, Readiness Milestone 5 shall be refunded to the Interconnection Customer, including any accumulated interest, if applicable. If the Interconnection Customer reaches Commercial Operation, Readiness Milestone 5 is refunded to the Interconnection Customer including any accumulated interest, if applicable. Within fifteen (15) Business Days after receipt of the final LGIA, Interconnection Customer also shall provide reasonable evidence that one or more of the following milestones in the development of the Large Generating Facility, at Interconnection Customer election, has been achieved: (i) the execution of a contract for the supply or transportation of fuel to the Large Generating Facility (not available for wind or solar resources); (ii) the execution of a contract for the supply of cooling water to the Large Generating Facility (not available for wind or solar resources); (iii) execution of a contract for the engineering for, procurement of major equipment for, or construction of, the Large Generating Facility; (iv) execution of a contract (or comparable evidence) for the sale of electric energy or capacity from the Large Generating Facility; or (v) application for an air, water, or land use permit.

Interconnection Customer shall either: (i) execute two originals of the tendered LGIA and return them to Transmission Provider; or (ii) request in writing that Transmission Provider file with FERC an LGIA in unexecuted form. As soon as practicable, but not later than ten (10) Business Days after receiving either the two executed originals of the tendered LGIA (if it does not conform with a FERC-approved standard form of interconnection agreement) or the request to file an unexecuted LGIA, Transmission Provider shall file the LGIA with FERC, together with its explanation of any matters as to which Interconnection Customer and Transmission Provider disagree and support for the costs that Transmission Provider proposes to charge to Interconnection Customer under the LGIA. An unexecuted LGIA should contain terms and conditions deemed appropriate by Transmission Provider for the Interconnection Request. If the Parties agree to proceed with design, procurement, and construction of facilities and upgrades under the agreed-upon terms of the unexecuted LGIA, they may proceed pending FERC action.

#### **10.4 Commencement of Interconnection Activities.**

If Interconnection Customer executes the final LGIA, Transmission Provider and Interconnection Customer shall perform their respective obligations in accordance with the terms of the LGIA, subject to modification by FERC. Upon submission of an unexecuted LGIA, Interconnection Customer and Transmission Provider shall promptly comply with the unexecuted LGIA, subject to modification by FERC.



## **Section 11. Construction of Transmission Provider's Interconnection Facilities and Network Upgrades.**

### **11.1 Schedule.**

Transmission Provider and Interconnection Customer shall negotiate in good faith concerning a schedule for the construction of Transmission Provider's Interconnection Facilities and the Network Upgrades.

### **11.2 Construction Sequencing.**

#### **11.2.1 General.**

In general, the In-Service Date of an Interconnection Customers seeking interconnection to the Transmission System will determine the sequence of construction of Network Upgrades. Construction Sequencing may also apply to shared Transmission Provider's Interconnection Facilities in a similar manner as described below for Network Upgrades.

#### **11.2.2 Advance Construction of Network Upgrades that are an Obligation of an Entity other than Interconnection Customer.**

An Interconnection Customer with an LGIA, in order to maintain its In-Service Date, may request that Transmission Provider advance to the extent necessary the completion of Network Upgrades that: (i) were assumed in the Interconnection Studies for such Interconnection Customer, (ii) are necessary to support such In-Service Date, and (iii) would otherwise not be completed, pursuant to a contractual obligation of an entity other than Interconnection Customer that is seeking interconnection to the Transmission System, in time to support such In-Service Date. Upon such request, Transmission Provider will use Reasonable Efforts to advance the construction of such Network Upgrades to accommodate such request; provided that Interconnection Customer commits to pay Transmission Provider: (i) any associated expediting costs; and (ii) the cost of such Network Upgrades.

Transmission Provider will refund to Interconnection Customer both the expediting costs and the cost of Network Upgrades, in accordance with Article 11.4 of the LGIA. Consequently, the entity with a contractual obligation to construct such Network Upgrades shall be obligated to pay only that portion of the costs of the Network Upgrades that Transmission Provider has not refunded to Interconnection Customer. Payment by that entity shall be due on the date that it would have been due had there been no request for advance construction. Transmission Provider shall forward to Interconnection Customer the amount paid by the entity with a contractual obligation to construct the Network Upgrades as payment in full for the outstanding balance owed to Interconnection Customer. Transmission Provider then shall refund to that entity the amount that

it paid for the Network Upgrades, in accordance with Article 11.4 of the LGIA.

**11.2.3 Advancing Construction of Network Upgrades that are Part of an Expansion Plan of the Transmission Provider.**

An Interconnection Customer with an LGIA, in order to maintain its In-Service Date, may request that Transmission Provider advance to the extent necessary the completion of Network Upgrades that: (i) are necessary to support such In-Service Date; and (ii) would otherwise not be completed, pursuant to an expansion plan of Transmission Provider, in time to support such In-Service Date. Upon such request, Transmission Provider will use Reasonable Efforts to advance the construction of such Network Upgrades to accommodate such request; provided that Interconnection Customer commits to pay Transmission Provider any associated expediting costs. Interconnection Customer shall be entitled to transmission credits, if any, for any expediting costs paid.

**11.2.4 Amended Definitive Interconnection System Impact Study.**

A Definitive Interconnection System Impact Study may be amended to determine the facilities necessary to support the requested In-Service Date. This amended study will include those transmission and Large Generating Facilities that are expected to be in service on or before the requested In-Service Date.

**Section 12. Miscellaneous.**

**12.1 Confidentiality.**

Confidential Information shall include, without limitation, all information relating to a Party's technology, research and development, business affairs, and pricing, and any information supplied by either of the Parties to the other prior to the execution of an LGIA.

Information is Confidential Information only if it is clearly designated or marked in writing as confidential on the face of the document, or, if the information is conveyed orally or by inspection, if the Party providing the information orally informs the Party receiving the information that the information is confidential.

If requested by either Party, the other Party shall provide in writing the basis for asserting that the information referred to in this Article warrants confidential treatment, and the requesting Party may disclose such writing to the appropriate Governmental Authority. Each Party shall be responsible for the costs associated with affording confidential treatment to its information.

**12.1.1 Scope.**

Confidential Information shall not include information that the receiving Party can demonstrate: (1) is generally available to the public other than as a result of a disclosure by the receiving Party;



(2) was in the lawful possession of the receiving Party on a non-confidential basis before receiving it from the disclosing Party; (3) was supplied to the receiving Party without restriction by a third party, who, to the knowledge of the receiving Party after due inquiry, was under no obligation to the disclosing Party to keep such information confidential; (4) was independently developed by the receiving Party without reference to Confidential Information of the disclosing Party; (5) is, or becomes, publicly known, through no wrongful act or omission of the receiving Party or Breach of the LGIA; or (6) is required, in accordance with Section 12.1.6, Order of Disclosure, to be disclosed by any Governmental Authority or is otherwise required to be disclosed by law or subpoena, or is necessary in any legal proceeding establishing rights and obligations under the LGIA

Information designated as Confidential Information will no longer be deemed confidential if the Party that designated the information as confidential notifies the other Party that it no longer is confidential.

**12.1.2 Release of Confidential Information.**

Neither Party shall release or disclose Confidential Information to any other person, except to its Affiliates (limited by the Standards of Conduct requirements), employees, consultants, or to parties who may be or considering providing financing to or equity participation with Interconnection Customer, or to potential purchasers or assignees of Interconnection Customer, on a need-to-know basis in connection with these procedures, unless such person has first been advised of the confidentiality provisions of this Section 12.1 and has agreed to comply with such provisions. Notwithstanding the foregoing, a Party providing Confidential Information to any person shall remain primarily responsible for any release of Confidential Information in contravention of this Section 12.1.

**12.1.3 Rights.**

Each Party retains all rights, title, and interest in the Confidential Information that each Party discloses to the other Party. The disclosure by each Party to the other Party of Confidential Information shall not be deemed a waiver by either Party or any other person or entity of the right to protect the Confidential Information from public disclosure.

**12.1.4 No Warranties.**

By providing Confidential Information, neither Party makes any warranties or representations as to its accuracy or completeness. In addition, by supplying Confidential Information, neither Party obligates itself to provide any particular information or Confidential Information to the other Party nor to enter into any further agreements or proceed with any other relationship or joint venture.

**12.1.5 Standard of Care.**

Each Party shall use at least the same standard of care to protect Confidential Information it receives as it uses to protect its own Confidential Information from unauthorized disclosure, publication or dissemination. Each Party may use Confidential Information solely to fulfill its obligations to the other Party under these procedures or its regulatory requirements.

**12.1.6 Order of Disclosure.**

If a court or a Government Authority or entity with the right, power, and apparent authority to do so requests or requires either Party, by subpoena, oral deposition, interrogatories, requests for production of documents, administrative order, or otherwise, to disclose Confidential Information, that Party shall provide the other Party with prompt notice of such request(s) or requirement(s) so that the other Party may seek an appropriate protective order or waive compliance with the terms of the LGIA. Notwithstanding the absence of a protective order or waiver, the Party may disclose such Confidential Information which, in the opinion of its counsel, the Party is legally compelled to disclose. Each Party will use Reasonable Efforts to obtain reliable assurance that confidential treatment will be accorded any Confidential Information so furnished.

**12.1.7 Remedies.**

The Parties agree that monetary damages would be inadequate to compensate a Party for the other Party's Breach of its obligations under this Section 12.1. Each Party accordingly agrees that the other Party shall be entitled to equitable relief, by way of injunction or otherwise, if the first Party Breaches or threatens to Breach its obligations under this Section 12.1, which equitable relief shall be granted without bond or proof of damages, and the receiving Party shall not plead in defense that there would be an adequate remedy at law. Such remedy shall not be deemed an exclusive remedy for the Breach of this Section 12.1, but shall be in addition to all other remedies available at law or in equity. The Parties further acknowledge and agree that the covenants contained herein are necessary for the protection of legitimate business interests and are reasonable in scope. No Party, however, shall be liable for indirect, incidental, or consequential or punitive damages of any nature or kind resulting from or arising in connection with this Section 12.1.

**12.1.8 Disclosure to FERC, its Staff, or a State.**

Notwithstanding anything in this Section 12.1 to the contrary, and pursuant to 18 CFR Section 1b.20, if FERC or its staff, during the course of an investigation or otherwise, requests information from one of the Parties that is otherwise required to be maintained in confidence pursuant to the Revised LGIP, the Party shall provide the requested information to FERC or its staff, within the time provided for

in the request for information. In providing the information to FERC or its staff, the Party must, consistent with 18 CFR Section 388.112, request that the information be treated as confidential and non-public by FERC and its staff and that the information be withheld from public disclosure. Parties are prohibited from notifying the other Party prior to the release of the Confidential Information to FERC or its staff. The Party shall notify the other Party to the LGIA when it is notified by FERC or its staff that a request to release Confidential Information has been received by FERC, at which time either of the Parties may respond before such information would be made public, pursuant to 18 CFR Section 388.112. Requests from a state regulatory body conducting a confidential investigation shall be treated in a similar manner, consistent with applicable state rules and regulations.

**12.1.9** Subject to the exception in Section 12.1.8, any information that a Party claims is competitively sensitive, commercial or financial information (“Confidential Information”) shall not be disclosed by the other Party to any person not employed or retained by the other Party, except to the extent disclosure is (i) required by law; (ii) reasonably deemed by the disclosing Party to be required to be disclosed in connection with a dispute between or among the Parties, or the defense of litigation or dispute; (iii) otherwise permitted by consent of the other Party, such consent not to be unreasonably withheld; or (iv) necessary to fulfill its obligations under this Revised LGIP or as a transmission service provider or a Control Area operator including disclosing the Confidential Information to an RTO or ISO or to a subregional, regional or national reliability organization or planning group. The Party asserting confidentiality shall notify the other Party in writing of the information it claims is confidential. Prior to any disclosures of the other Party's Confidential Information under this subparagraph, or if any third party or Governmental Authority makes any request or demand for any of the information described in this subparagraph, the disclosing Party agrees to promptly notify the other Party in writing and agrees to assert confidentiality and cooperate with the other Party in seeking to protect the Confidential Information from public disclosure by confidentiality agreement, protective order or other reasonable measures.

**12.1.10** This provision shall not apply to any information that was or is hereafter in the public domain (except as a result of a Breach of this provision).

Transmission Provider shall, at Interconnection Customer's election, destroy, in a confidential manner, or return the Confidential Information provided at the time of Confidential Information is no longer needed.

## **12.2 Delegation of Responsibility.**

Transmission Provider may use the services of subcontractors as it deems appropriate to perform its obligations under this Revised LGIP. Transmission Provider shall remain primarily liable to Interconnection Customer for the performance of such subcontractors and compliance with its obligations of this Revised LGIP. The subcontractor shall keep all information provided confidential and shall use such information solely for the performance of such obligation for which it was provided and no other purpose.

### **12.3 Obligation for Study Costs and Withdrawal Penalty**

Transmission Provider shall charge and Interconnection Customer shall pay the actual costs of the Interconnection Studies and the Withdrawal Penalty, as applicable. Any difference between the study deposit and the actual cost of the applicable Interconnection Study shall be paid by or refunded, except as otherwise provided herein. Any invoices for Interconnection Studies shall include a detailed and itemized accounting of the cost of each Interconnection Study as well as the Withdrawal Penalty, if applicable. Interconnection Customer shall pay any such undisputed costs within thirty (30) Calendar Days of receipt of an invoice. Transmission Provider shall not be obligated to perform or continue to perform any studies unless Interconnection Customer has paid all undisputed amounts in compliance herewith. If invoices are not paid within thirty (30) Calendar Days of receipt of an invoice, Transmission Provider shall draw upon the security provided under this Revised LGIP to settle all accounts, which shall include any offsets of amounts due and owing by Transmission Provider. After the final invoice is paid and all accounts are settled, Transmission Provider shall refund all remaining security.

### **12.4 Third Parties Conducting Studies.**

If (i) at the time of the signing of an Interconnection Study Agreement there is disagreement as to the estimated time to complete an Interconnection Study, (ii) Interconnection Customer receives notice pursuant to Sections 7.4 or 8.3 that Transmission Provider will not complete an Interconnection Study within the applicable timeframe for such Interconnection Study, or (iii) Interconnection Customer receives neither the Interconnection Study nor a notice under Sections 7.4 or 8.3 within the applicable timeframe for such Interconnection Study, then Interconnection Customer may require Transmission Provider to utilize a third party consultant reasonably acceptable to Interconnection Customer and Transmission Provider to perform such Interconnection Study under the direction of Transmission Provider. At other times, Transmission Provider may also utilize a third party consultant to perform such Interconnection Study, either in response to a general request of Interconnection Customer, or on its own volition.

In all cases, use of a third party consultant shall be in accord with Article 26 of the LGIA (Subcontractors) and limited to situations where Transmission Provider determines that doing so will help maintain or accelerate the study process for Interconnection Customer's pending Interconnection Request and not interfere with Transmission Provider's progress on Interconnection Studies for other pending Interconnection Requests. In cases where Interconnection Customer requests use of a third party consultant to perform such Interconnection Study,

Interconnection Customer and Transmission Provider shall negotiate all of the pertinent terms and conditions, including reimbursement arrangements and the estimated study completion date and study review deadline. Transmission Provider shall convey all workpapers, data bases, study results and all other supporting documentation prepared to date with respect to the Interconnection Request as soon as soon as practicable upon Interconnection Customer's request subject to the confidentiality provision in Section 12.1. In any case, such third party contract may be entered into with either Interconnection Customer or Transmission Provider at Transmission Provider's discretion. In the case of clause (iii), above, Interconnection Customer maintains its right to submit a claim to Dispute Resolution to recover the costs of such third party study. Such third party consultant shall be required to comply with this Revised LGIP, Article 26 of the LGIA (Subcontractors), and the relevant Tariff procedures and protocols as would apply if Transmission Provider were to conduct the Interconnection Study and shall use the information provided to it solely for purposes of performing such services and for no other purposes. Transmission Provider shall cooperate with such third party consultant and Interconnection Customer to complete and issue the Interconnection Study in the shortest reasonable time.

## **12.5 Disputes.**

### **12.5.1 Submission.**

In the event either Party has a dispute, or asserts a claim, that arises out of or in connection with the LGIA, the Revised LGIP, or their performance, such Party (the "disputing Party") shall provide the other Party with written notice of the dispute or claim ("Notice of Dispute"). Such dispute or claim shall be referred to a designated senior representative of each Party for resolution on an informal basis as promptly as practicable after receipt of the Notice of Dispute by the other Party. In the event the designated representatives are unable to resolve the claim or dispute through unassisted or assisted negotiations within thirty (30) Calendar Days of the other Party's receipt of the Notice of Dispute, such claim or dispute may, upon mutual agreement of the Parties, be submitted to arbitration and resolved in accordance with the arbitration procedures set forth below. In the event the Parties do not agree to submit such claim or dispute to arbitration, each Party may exercise whatever rights and remedies it may have in equity or at law consistent with the terms of this LGIA.

### **12.5.2 External Arbitration Procedures.**

Any arbitration initiated under these procedures shall be conducted before a single neutral arbitrator appointed by the Parties. If the Parties fail to agree upon a single arbitrator within ten (10) Calendar Days of the submission of the dispute to arbitration, each Party shall choose one arbitrator who shall sit on a three-member arbitration panel. The two arbitrators so chosen shall within twenty (20) Calendar Days select a third arbitrator to chair the arbitration panel. In either case, the arbitrators shall be knowledgeable in electric utility matters,

including electric transmission and bulk power issues, and shall not have any current or past substantial business or financial relationships with any party to the arbitration (except prior arbitration). The arbitrator(s) shall provide each of the Parties an opportunity to be heard and, except as otherwise provided herein, shall conduct the arbitration in accordance with the Commercial Arbitration Rules of the American Arbitration Association ("Arbitration Rules") and any applicable FERC regulations or RTO rules; provided, however, in the event of a conflict between the Arbitration Rules and the terms of this Section 12, the terms of this Section 12 shall prevail.

**12.5.3 Arbitration Decisions.**

Unless otherwise agreed by the Parties, the arbitrator(s) shall render a decision within ninety (90) Calendar Days of appointment and shall notify the Parties in writing of such decision and the reasons therefore. The arbitrator(s) shall be authorized only to interpret and apply the provisions of the LGIA and Revised LGIP and shall have no power to modify or change any provision of the LGIA and Revised LGIP in any manner. The decision of the arbitrator(s) shall be final and binding upon the Parties, and judgment on the award may be entered in any court having jurisdiction. The decision of the arbitrator(s) may be appealed solely on the grounds that the conduct of the arbitrator(s), or the decision itself, violated the standards set forth in the Federal Arbitration Act or the Administrative Dispute Resolution Act. The final decision of the arbitrator must also be filed with FERC if it affects jurisdictional rates, terms and conditions of service, Interconnection Facilities, or Network Upgrades.

**12.5.4 Costs.**

Each Party shall be responsible for its own costs incurred during the arbitration process and for the following costs, if applicable: (1) the cost of the arbitrator chosen by the Party to sit on the three member panel and one-half of the cost of the third arbitrator chosen; or (2) one-half the cost of the single arbitrator jointly chosen by the Parties.

**12.5.5 Non-Binding Dispute Resolution Procedures.**

If a Party has submitted a Notice of Dispute pursuant to Section 12.5.1, and the Parties are unable to resolve the claim or dispute through unassisted or assisted negotiations within the thirty (30) Calendar Days provided in that section, and the Parties cannot reach mutual agreement to pursue the Section 12.5 arbitration process, a Party may request that Transmission Provider engage in Non-binding Dispute Resolution pursuant to this section by providing written notice to Transmission Provider ("Request for Non-binding Dispute Resolution"). Conversely, either Party may file a Request for Non-binding Dispute Resolution pursuant to this section without first seeking mutual agreement to pursue the Section 12.5 arbitration



process. The process in Section 12.5.5 shall serve as an alternative to, and not a replacement of, the Section 12.5 arbitration process. Pursuant to this process, Transmission Provider must within thirty (30) Calendar Days of receipt of the Request for Non-binding Dispute Resolution appoint a neutral decision-maker that is an independent subcontractor that shall not have any current or past substantial business or financial relationships with either Party. Unless otherwise agreed by the Parties, the decision-maker shall render a decision within sixty (60) Calendar Days of appointment and shall notify the Parties in writing of such decision and reasons therefore. This decision-maker shall be authorized only to interpret and apply the provisions of the Revised LGIP and LGIA and shall have no power to modify or change any provision of the Revised LGIP and LGIA in any manner. The result reached in this process is not binding, but, unless otherwise agreed, the Parties may cite the record and decision in the non-binding dispute resolution process in future dispute resolution processes, including in Section 12.5 arbitration, or in a Federal Power Act Section 206 complaint. Each Party shall be responsible for its own costs incurred during the process and the cost of the decision-maker shall be divided equally among each Party to the dispute.

## **12.6 Local Furnishing Bonds.**

### **12.6.1 Transmission Providers That Own Facilities Financed by Local Furnishing Bonds.**

This provision is applicable only to a Transmission Provider that has financed facilities for the local furnishing of electric energy with tax-exempt bonds, as described in Section 142(f) of the Internal Revenue Code ("local furnishing bonds"). Notwithstanding any other provision of this LGIA and Revised LGIP, Transmission Provider shall not be required to provide Interconnection Service to Interconnection Customer pursuant to this LGIA and Revised LGIP if the provision of such Transmission Service would jeopardize the tax-exempt status of any local furnishing bond(s) used to finance Transmission Provider's facilities that would be used in providing such Interconnection Service.

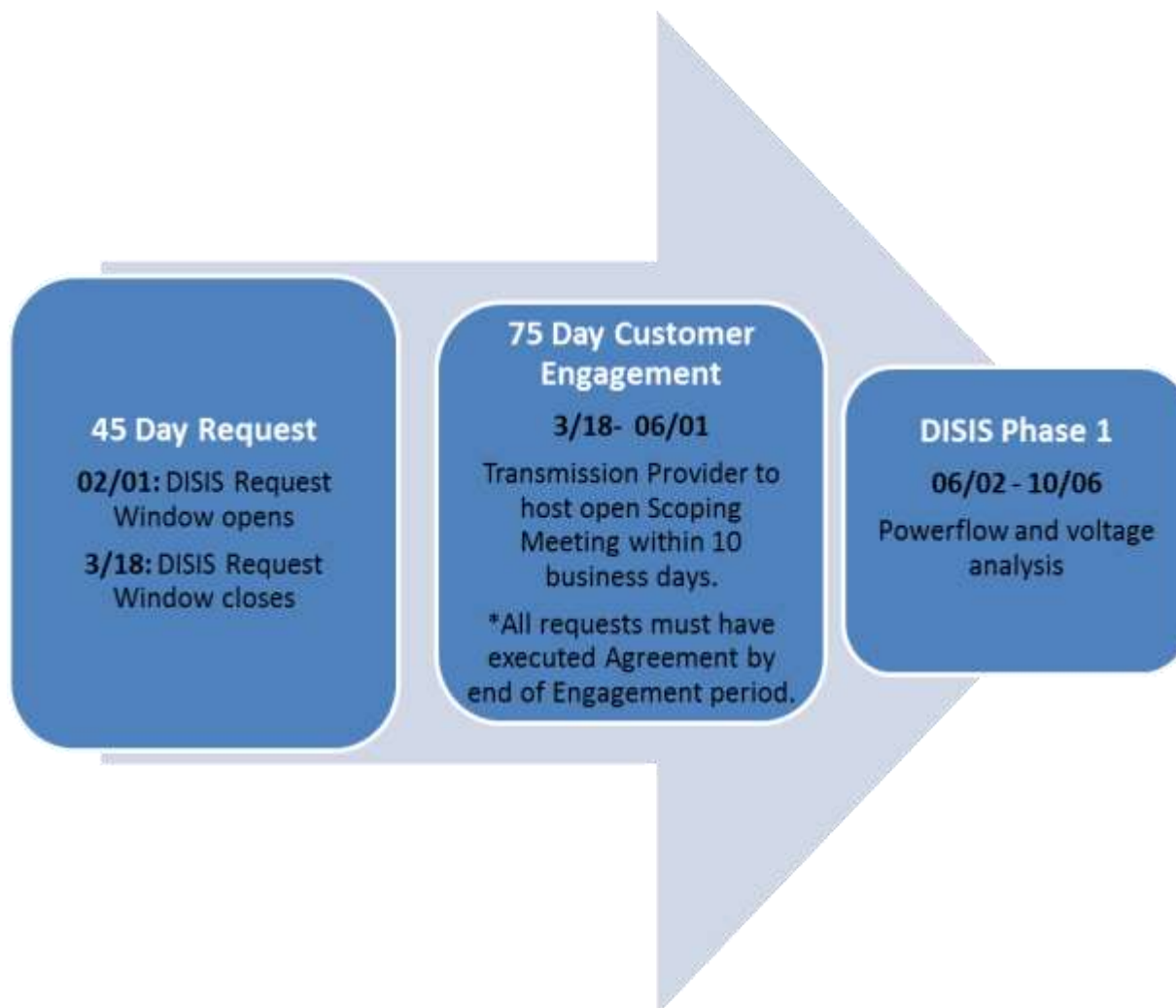
### **12.6.2 Alternative Procedures for Requesting Interconnection Service.**

If Transmission Provider determines that the provision of Interconnection Service requested by Interconnection Customer would jeopardize the tax-exempt status of any local furnishing bond(s) used to finance its facilities that would be used in providing such Interconnection Service, it shall advise Interconnection Customer within thirty (30) Calendar Days of receipt of the Interconnection Request.

Interconnection Customer thereafter may renew its request for interconnection using the process specified in Article 5.2(ii) of the Transmission Provider's Tariff.

### Timeline: Appendix A-1 – Start of the Spring DISIS Cluster

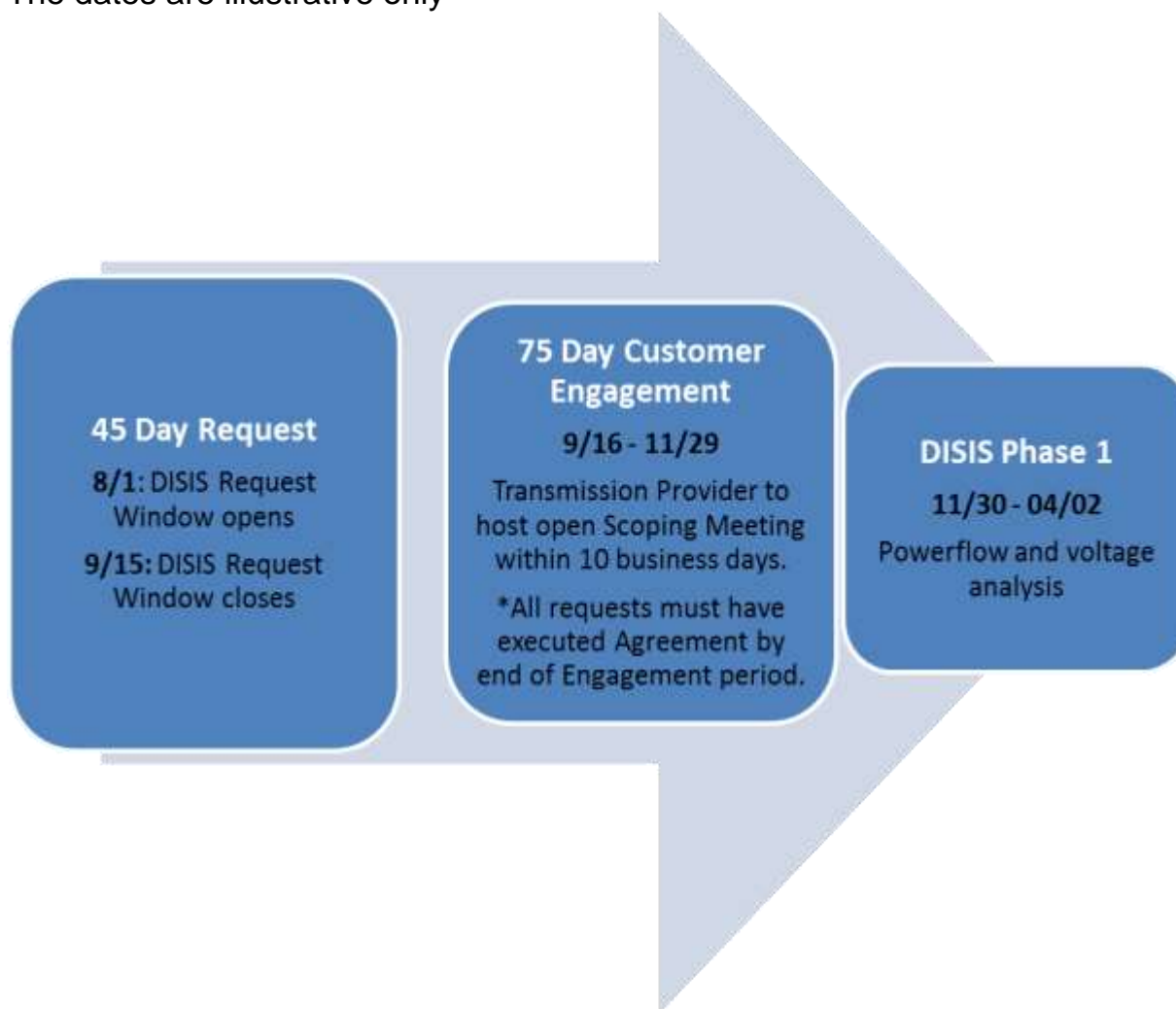
The dates are illustrative only



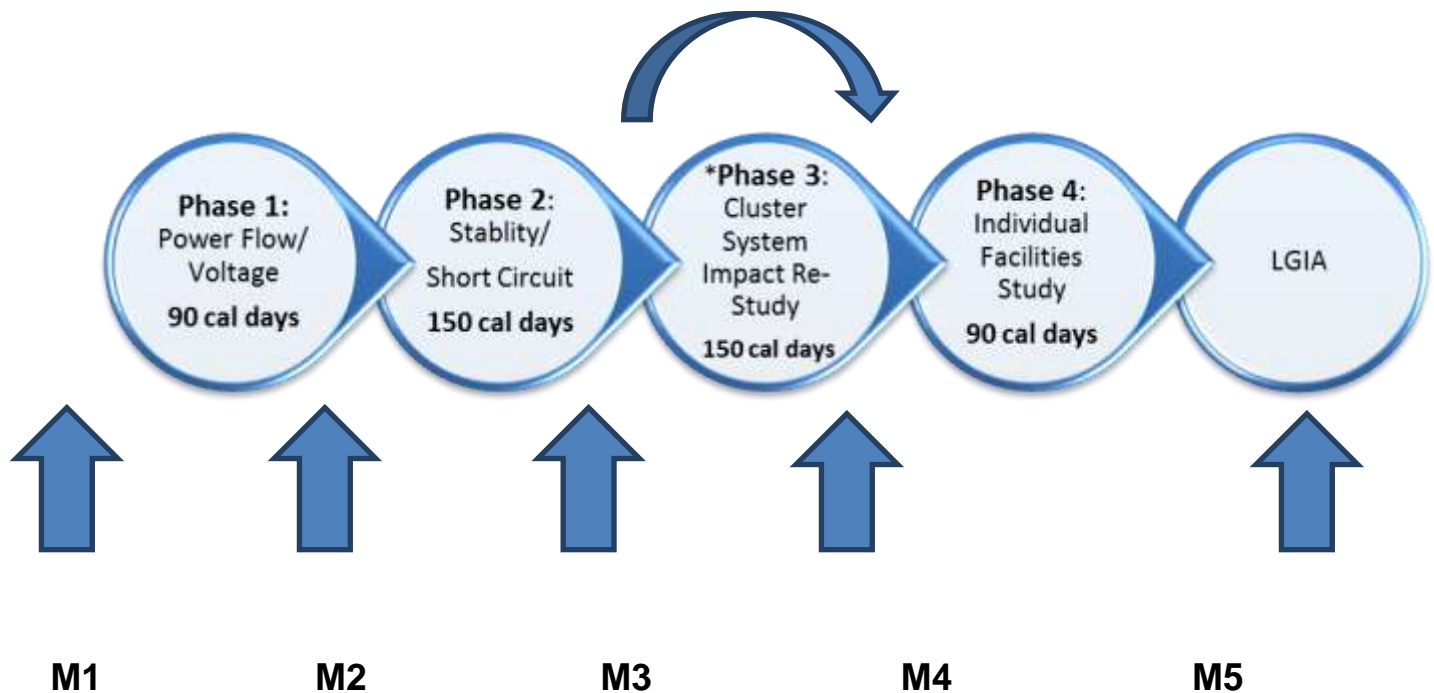


**Timeline: Appendix A-1 – Start of the Fall DISIS Cluster**

The dates are illustrative only



**Timeline: Appendix A-2**



Milestone	Total Security Required (Multiple of Section 3.1 Study Deposit) If Demonstration of Readiness <u>IS</u> Provided	Total Security Required (Multiple of Section 3.1 Study Deposit) If Demonstration of Readiness <u>IS NOT</u> Provided	Demonstration of Site Control for All Fuel Types	Site Control of ICIF's
<b>M1</b>	<b>1x</b>	<b>2x</b>	<b>50%</b>	<b>0%</b>
<b>M2</b>	<b>1x</b>	<b>3x</b>	<b>50%</b>	<b>0%</b>
<b>M3</b>	<b>1x</b>	<b>5x</b>	<b>60%</b>	<b>0%</b>
<b>M4</b>	<b>1x</b>	<b>7x</b>	<b>75%</b>	<b>0%</b>
<b>M5</b>	<b>9x</b>	<b>9x</b>	<b>90%</b>	<b>50%</b>

<b>Phase 1: Power Flow/Voltage: Within 90 calendar days</b>
<ul style="list-style-type: none"> <li>• Transmission Provider to perform Power Flow and Voltage Analysis.</li> <li>• Transmission Provider to complete Phase 1 report within 90 calendar days and post results on OASIS.</li> <li>• Transmission Provider to hold open Stakeholder Meeting within 10 business days of publishing DISIS Phase 1 results on OASIS.</li> <li>• Interconnection Customer demonstrate M2 Readiness within 20 business days following open Stakeholder Meeting</li> </ul>
<b>Phase 2: Stability/Short Circuit: Within 150 calendar days</b>
<ul style="list-style-type: none"> <li>• Transmission Provider to complete Phase 2 analysis within 150 calendar and post results on OASIS.</li> <li>• Transmission Provider to hold Phase 2 Report Meeting within 10 business days of publishing report results on OASIS.</li> <li>• Interconnection Customer to demonstrate M3 (if Re-Study is necessary) or M4 Readiness within 20 business days of Report Meeting.</li> </ul>
<b>**Phase 3: Iterative Cluster System Impact Re-Study: Within 150 calendar days</b>
<p style="text-align: center;"><b>**May not be necessary**</b></p> <ul style="list-style-type: none"> <li>• If a Re-Study is needed, Transmission Provider perform Phase 3 Re-Study within 150 calendar days and post Re-Study results on OASIS.</li> <li>• Transmission Provider to hold open Interconnection Customer Report Meeting within 10 business days of publishing Re-Study results on OASIS.</li> <li>• Interconnection Customer to demonstrate M4 Readiness if no further System Impact Re-Studies are necessary within 20 business days of Report Meeting.</li> </ul>
<b>Phase 4: Individual Facilities Study: Within 90 calendar days</b>
<ul style="list-style-type: none"> <li>• Transmission Provider to complete Facilities Study, complete and submit draft Facilities Study Report to Interconnection Customer and post results of Study on OASIS within 90 calendar days from start of Phase 4.</li> <li>• Transmission Provider to hold open Interconnection Customer Report Meeting within 10 business days of end of Phase 4.</li> <li>• Interconnection Customer to provide written comments of Facilities Study Report to Transmission Provider within 30 days of receipt of draft Facilities Study Report.</li> <li>• Transmission Provider to issue Final Facilities Study Report to Customer within 15 business days of receiving Interconnection Customer's comments or promptly upon receiving Interconnection Customer's statement that it will not provide comments.</li> </ul>
<b>Phase 5: LGIA:</b>
<ul style="list-style-type: none"> <li>• Transmission Provider to provide Interconnection Customer with draft LGIA within 30 calendar days of receipt of Interconnection Customer's Facilities Study comments.</li> <li>• Interconnection Customer to execute and return completed draft appendices within 30 calendar days of receipt of draft LGIA.</li> <li>• Deadline for LGIA negotiations to be completed within 60 calendar days of after tender of the final Interconnection Facilities Study Report.</li> <li>• Deadline for filing or executing LGIA is within 60 calendar days of after tender the draft LGIA provided to Interconnection Customer.</li> <li>• Interconnection Customer to satisfy Readiness Milestone 5 within 15 business days of receiving final LGIA</li> </ul>

**APPENDIX 1 to Revised LGIP  
INTERCONNECTION REQUEST FOR A  
LARGE GENERATING FACILITY**

1. The undersigned Interconnection Customer submits this request to interconnect its Large Generating Facility with Transmission Provider's Transmission System pursuant to a Tariff.
2. This Interconnection Request is for (check one):  
☐ A proposed new Large Generating Facility.  
☐ An increase in the generating capacity or a Material Modification of an existing Generating Facility.  
☐ A Generating Facility proposed for inclusion in a resource solicitation process.
3. The type of interconnection service requested (check one):  
☐ Energy Resource Interconnection Service  
☐ Network Resource Interconnection Service
4. Interconnection Customer provides the following information:
  - a. Address or location of the proposed new Large Generating Facility site (to the extent known) or, in the case of an existing Generating Facility, the name and specific location of the existing Generating Facility;
  - b. Maximum summer at \_\_\_\_ degrees C and winter at \_\_\_\_ degrees C megawatt electrical output of the proposed new Large Generating Facility or the amount of megawatt increase in the generating capacity of an existing Generating Facility;
  - c. General description of the equipment configuration;
  - d. Commercial Operation Date (Day, Month, and Year);
  - e. Name, address, telephone number, and e-mail address of Interconnection Customer's contact person;
  - f. Approximate location of the proposed Point of Interconnection (optional);
  - g. Interconnection Customer Data (set forth in Attachment A)
  - h. Primary frequency response operating range for electric storage resources.
  - i. Requested capacity (in MW) of Interconnection Service (if lower than the Generating Facility Capacity).
5. Interconnection Customer provides applicable study deposit amount as specified in the Revised LGIP.

\$75,000 for requests of less than 50 MW; or  
\$150,000 for requests of 50 MW and Greater, but less than 200 MW; or  
\$250,000 for requests of 200 MW and greater

6. Interconnection Customer provides Readiness Milestone 1 (M1) as specified in the Revised LGIP.

M1 is satisfied by any one of the three options below (also described in 3.4.1.f of the Revised LGIP) at Interconnection Customer's option. M1 may also be satisfied by providing additional security described in Section 7.7.5 *in lieu* of providing one of the three options to demonstrate readiness.

- i. Executed term sheet (or comparable evidence) related to a contract, binding upon the parties to the contract, for sale of (i) the constructed Generating Facility, (ii) the Generating Facility's energy, or (iii) the Generating Facility's ancillary services if the Generating Facility is an electric storage resource; where the term of sale is not less than five (5) years;
  - ii. Reasonable evidence the project has been selected in a Resource Plan or Resource Solicitation Process; or
  - iii. Provisional Large Generator Interconnection Agreement accepted for filing with FERC. Such an agreement shall not be suspended and shall include a commitment to construct the Generating Facility.
7. Interconnection Customer provides security equal to one times the study deposit described in Section 3.1 of the Revised LGIP in the form of an irrevocable letter of credit or cash.
8. If requesting NRIS: Interconnection Customer provides the expected point of delivery to deliver within the Transmission Provider's Control Area or to an adjoining Control Area if the Generating Facility is not designated a Network Resource pursuant to Section 30.2 of the Tariff.
9. Interconnection Customer provides Evidence of Site Control as specified in the Revised LGIP and Transmission Provider's business practices posted on OASIS.
10. This Interconnection Request shall be submitted to the representative indicated below:
- [To be completed by Transmission Provider]
11. Representative of Interconnection Customer to contact:
- [To be completed by Interconnection Customer]
12. This Interconnection Request is submitted by:
- Name of Interconnection Customer: \_\_\_\_\_
- By (signature): \_\_\_\_\_

Name (type or print): \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**Attachment A to Appendix 1  
Interconnection Request**

**LARGE GENERATING FACILITY DATA**

**UNIT RATINGS**

kVA \_\_\_\_\_ °F \_\_\_\_\_ Voltage \_\_\_\_\_  
Power Factor \_\_\_\_\_  
Speed (RPM) \_\_\_\_\_ Connection (e.g. Wye) \_\_\_\_\_  
Short Circuit Ratio \_\_\_\_\_ Frequency, Hertz \_\_\_\_\_  
Stator Amperes at Rated kVA \_\_\_\_\_ Field Volts \_\_\_\_\_  
Max Turbine MW \_\_\_\_\_ °F \_\_\_\_\_

**Primary frequency response operating range for electric storage resources.**

Minimum State of Charge: \_\_\_\_\_  
Maximum State of Charge: \_\_\_\_\_

**COMBINED TURBINE-GENERATOR-EXCITER INERTIA DATA**

Inertia Constant, H = \_\_\_\_\_ kW sec/kVA  
Moment-of-Inertia,  $WR^2$  = \_\_\_\_\_ lb. ft.<sup>2</sup>

**REACTANCE DATA (PER UNIT-RATED KVA)**

**DIRECT AXIS QUADRATURE AXIS**

Synchronous – saturated	$X_{dv}$ _____	$X_{qv}$ _____
Synchronous – unsaturated	$X_{di}$ _____	$X_{qi}$ _____
Transient – saturated	$X'_{dv}$ _____	$X'_{qv}$ _____
Transient – unsaturated	$X'_{di}$ _____	$X'_{qi}$ _____
Subtransient – saturated	$X''_{dv}$ _____	$X''_{qv}$ _____
Subtransient – unsaturated	$X''_{di}$ _____	$X''_{qi}$ _____
Negative Sequence – saturated	$X_{2v}$ _____	
Negative Sequence – unsaturated	$X_{2i}$ _____	

Zero Sequence – saturated  $X_{0v}$  \_\_\_\_\_  
Zero Sequence – unsaturated  $X_{0i}$  \_\_\_\_\_  
Leakage Reactance  $X_{lm}$  \_\_\_\_\_

Open Circuit	$T'_{do}$ _____	$T'_{qo}$ _____
Three-Phase Short Circuit Transient	$T'_{d3}$ _____	$T'_q$ _____
Line to Line Short Circuit Transient	$T'_{d1}$ _____	
Short Circuit Subtransient	$T''_d$ _____	$T''_q$ _____
Open Circuit Subtransient	$T'_{d2}$ _____	
Line to Neutral Short Circuit Transient	$T''_{do}$ _____	$T''_{qo}$ _____

**FIELD TIME CONSTANT DATA (SEC)**  
**ARMATURE TIME CONSTANT DATA (SEC)**

Three Phase Short Circuit	$T_{a3}$ _____
Line to Line Short Circuit	$T_{a2}$ _____
Line to Neutral Short Circuit	$T_{a1}$ _____

NOTE: If requested information is not applicable, indicate by marking “N/A.”

**MW CAPABILITY AND PLANT CONFIGURATION**  
**LARGE GENERATING FACILITY DATA**

**ARMATURE WINDING RESISTANCE DATA (PER UNIT)**

Positive	$R_1$ _____
Negative	$R_2$ _____
Zero	$R_0$ _____

Rotor Short Time Thermal Capacity  $I_2^2t$  = \_\_\_\_\_  
Field Current at Rated kVA, Armature Voltage and PF = \_\_\_\_\_ amps  
Field Current at Rated kVA and Armature Voltage, 0 PF = \_\_\_\_\_ amps  
Three Phase Armature Winding Capacitance = \_\_\_\_\_ microfarad  
Field Winding Resistance = \_\_\_\_\_ ohms \_\_\_\_\_ °C  
Armature Winding Resistance (Per Phase) = \_\_\_\_\_ ohms \_\_\_\_\_ °C

**CURVES**

Provide Saturation, Vee, Reactive Capability, Capacity Temperature Correction curves.  
Designate normal and emergency Hydrogen Pressure operating range for multiple curves.

### GENERATOR STEP-UP TRANSFORMER DATA RATINGS

Capacity Self-cooled/  
Maximum Nameplate  
\_\_\_\_\_/\_\_\_\_\_ kVA

Voltage Ratio(Generator Side/System side/Tertiary)  
\_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_ kV

Winding Connections (Low V/High V/Tertiary V (Delta or Wye))  
\_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_

Fixed Taps Available \_\_\_\_\_

Present Tap Setting \_\_\_\_\_

If more than one transformer stage is used to deliver the output from the proposed Generating Facility to the Transmission System, please provide the information above for each transformer or transformer type.

### IMPEDANCE

Positive  
 $Z_1$  (on self-cooled kVA rating) \_\_\_\_\_ % \_\_\_\_\_ X/R

Zero  
 $Z_0$  (on self-cooled kVA rating) \_\_\_\_\_ % \_\_\_\_\_ X/R

### EXCITATION SYSTEM DATA

Identify appropriate IEEE model block diagram of excitation system and power system stabilizer (PSS) for computer representation in power system stability simulations and the corresponding excitation system and PSS constants for use in the model.

### GOVERNOR SYSTEM DATA

Identify appropriate IEEE model block diagram of governor system for computer representation in power system stability simulations and the corresponding governor system constants for use in the model.

### WIND AND OTHER NON-SYNCHRONOUS GENERATORS

Number of generators to be interconnected pursuant to this Interconnection Request:  
\_\_\_\_\_

Elevation: \_\_\_\_\_ Single Phase \_\_\_\_\_ Three Phase \_\_\_\_\_



Inverter manufacturer, model name, number, and version:

---

List of adjustable setpoints for the protective equipment or software:

---

Note: A completed General Electric Company Power Systems Load Flow (PSLF) data sheet or other compatible formats, such as IEEE and PTI power flow models, must be supplied with the Interconnection Request. If other data sheets are more appropriate to the proposed device, then they shall be provided and discussed at Scoping Meeting.

### **Project Information: Site Control and Adequacy**

Total acres required to construct the Generating Facility: \_\_\_\_\_

Total acres under site control for the Generating Facility at the time of application:

---

Is Site Control required for Interconnection Facilities, i.e. transmission gen-tie or substation, to interconnect the Generating Facility? \_\_\_\_ Y \_\_\_\_ N

If yes, how many miles of gen-tie right-of-way are required? \_\_\_\_\_

What is the total number of acres required to build the gen-tie? \_\_\_\_\_

How many miles of gen-tie right-of-way are under Site Control at the time of this application?

---

List any local, state, or federal government permits required to construct the Generating Facility and any applicable Interconnection Facilities, i.e. transmission gen-tie:

---

---

## INDUCTION GENERATORS

- (\*) Field Volts: \_\_\_\_\_
- (\*) Field Amperes: \_\_\_\_\_
- (\*) Motoring Power (kW): \_\_\_\_\_
- (\*) Neutral Grounding Resistor (If Applicable): \_\_\_\_\_
- (\*)  $I_2^2t$  or K (Heating Time Constant): \_\_\_\_\_
- (\*) Rotor Resistance: \_\_\_\_\_
- (\*) Stator Resistance: \_\_\_\_\_
- (\*) Stator Reactance: \_\_\_\_\_
- (\*) Rotor Reactance: \_\_\_\_\_
- (\*) Magnetizing Reactance: \_\_\_\_\_
- (\*) Short Circuit Reactance: \_\_\_\_\_
- (\*) Exciting Current: \_\_\_\_\_
- (\*) Temperature Rise: \_\_\_\_\_
- (\*) Frame Size: \_\_\_\_\_
- (\*) Design Letter: \_\_\_\_\_
- (\*) Reactive Power Required In Vars (No Load): \_\_\_\_\_
- (\*) Reactive Power Required In Vars (Full Load): \_\_\_\_\_
- (\*) Total Rotating Inertia, H: \_\_\_\_\_ Per Unit on KVA Base

Note: Please consult Transmission Provider prior to submitting the Interconnection Request to determine if the information designated by (\*) is required.

**APPENDIX 2 to Revised LGIP  
DEFINITIVE INTERCONNECTION SYSTEM IMPACT STUDY AGREEMENT**

**THIS AGREEMENT** is made and entered into this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_ by and between \_\_\_\_\_, a \_\_\_\_\_ organized and existing under the laws of the State of \_\_\_\_\_, (“Interconnection Customer,”) and \_\_\_\_\_ a \_\_\_\_\_ existing under the laws of the State of \_\_\_\_\_, (“Transmission Provider”). Interconnection Customer and Transmission Provider each may be referred to as a “Party,” or collectively as the “Parties.”

**RECITALS**

**WHEREAS**, Interconnection Customer is proposing to develop a Large Generating Facility or generating capacity addition to an existing Generating Facility consistent with the Interconnection Request submitted by Interconnection Customer dated \_\_\_\_\_; and

**WHEREAS**, Interconnection Customer desires to interconnect the Large Generating Facility with the Transmission System; and

**WHEREAS**, Interconnection Customer has requested Transmission Provider to perform a Definitive Interconnection System Impact Study to assess the impact of interconnecting the Large Generating Facility to the Transmission System, and of any Affected Systems; and

**WHEREAS**, Interconnection Customer commits to provide certain Readiness Milestones through the Definitive Interconnection Study process as described in Section 7.7 of the Revised LGIP.

**NOW, THEREFORE**, in consideration of and subject to the mutual covenants contained herein the Parties agreed as follows:

- 1.0 When used in this Agreement, with initial capitalization, the terms specified shall have the meanings indicated in Transmission Provider's FERC-approved Revised LGIP.
- 2.0 Interconnection Customer elects and Transmission Provider shall cause to be performed a Definitive Interconnection System Impact Study consistent with Sections 7.3 and 7.4 of this Revised LGIP in accordance with the Tariff.
- 3.0 The scope of the Definitive Interconnection System Impact Study shall be subject to the assumptions set forth in Attachment A to this Agreement.
- 4.0 The Definitive Interconnection System Impact Study shall be based upon the technical information provided by Interconnection Customer in the Interconnection Request, subject to any modifications in accordance with Section 4.4 of the Revised LGIP. Transmission Provider reserves the right to request additional technical information from Interconnection Customer as may reasonably become necessary consistent with Good Utility Practice during the course of the Definitive Interconnection System Impact Study. If Interconnection Customer modifies its designated Point of Interconnection,

Interconnection Request, or the technical information provided therein is modified, the time to complete the Definitive Interconnection System Impact Study may be extended.

5.0 The Definitive Interconnection System Impact Study report (Phase 2 or Phase 3 Report) shall provide the following information, as appropriate:

- identification of any circuit breaker short circuit capability limits exceeded as a result of the interconnection;
- identification of any thermal overload or voltage limit violations resulting from the interconnection;
- identification of any instability or inadequately damped response to system disturbances resulting from the interconnection; and
- description and non-binding, good faith estimated cost of facilities required to interconnect the Large Generating Facility to the Transmission System and to address the identified short circuit, instability, and power flow issues.

6.0 Interconnection Customer shall provide the deposit as specified in Section 3.1 of the Revised LGIP for the performance of the Definitive Interconnection System Impact Study and the Interconnection Facilities Study. Transmission Provider's good faith estimate for the time of completion of the Definitive Interconnection System Impact Study (Phase 2) is [insert date].

Upon receipt of the Interconnection Facilities Study results (Phase 4 Results), or withdrawal of the Interconnection Request, Transmission Provider shall charge and Interconnection Customer shall pay the actual costs of the Definitive Interconnection System Impact Study, and the Withdrawal Penalty, as applicable, allocated according to Sections 4.2.3 and 8.1 of the Revised LGIP and the cost of the individual Interconnection Facilities Study.

Any difference between the study deposit and the actual cost of the study shall be paid by or refunded to Interconnection Customer, as appropriate, except as otherwise provided herein. As provided in Section 12.3 of the Revised LGIP, Interconnection Customer has thirty (30) Calendar Days of receipt of an invoice from Transmission Provider to pay any undisputed costs. If invoices are not paid within thirty (30) Calendar Days of receipt of an invoice, Transmission Provider shall draw upon the security provided to settle all accounts, which shall include any offsets of amounts due and owing by Transmission Provider. After the final invoice is paid and all accounts are settled, Transmission Provider shall refund all remaining security.

7.0 Miscellaneous. The Definitive Interconnection System Impact Study Agreement shall include standard miscellaneous terms including, but not limited to, indemnities, representations, disclaimers, warranties, governing law, amendment, execution, waiver, enforceability and assignment, that reflect best practices in the electric industry, that are consistent with regional practices, Applicable Laws and Regulations

and the organizational nature of each Party. All of these provisions, to the extent practicable, shall be consistent with the provisions of the Revised LGIP and the LGIA.

IN WITNESS THEREOF, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

**[Insert name of Transmission Provider or Transmission Owner, if applicable]**

By: \_\_\_\_\_ By: \_\_\_\_\_

Title: \_\_\_\_\_ Title: \_\_\_\_\_

Date: \_\_\_\_\_ Date: \_\_\_\_\_

**[Insert name of Interconnection Customer]**

By: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**Attachment A to Appendix 2  
Definitive Interconnection System Impact Study Agreement**

**ASSUMPTIONS USED IN CONDUCTING THE  
DEFINITIVE INTERCONNECTION SYSTEM IMPACT STUDY**

The Definitive Interconnection System Impact Study shall be based upon the information set forth in the Interconnection Request(s) and results of applicable prior studies, subject to any modifications in accordance with Section 4.4 of the Revised LGIP, and the following assumptions:

Designation of Point of Interconnection and configuration to be studied.

[Above assumptions to be completed by Interconnection Customer and other assumptions to be provided by Interconnection Customer and Transmission Provider]

**APPENDIX 3 to Revised LGIP  
INTERCONNECTION FACILITIES STUDY AGREEMENT**

**THIS AGREEMENT** is made and entered into this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_ by and between \_\_\_\_\_, a \_\_\_\_\_ organized and existing under the laws of the State of \_\_\_\_\_, (“Interconnection Customer,”) and \_\_\_\_\_ a \_\_\_\_\_ existing under the laws of the State of \_\_\_\_\_, (“Transmission Provider “). Interconnection Customer and Transmission Provider each may be referred to as a “Party,” or collectively as the “Parties.”

**RECITALS**

**WHEREAS**, Interconnection Customer is proposing to develop a Large Generating Facility or generating capacity addition to an existing Generating Facility consistent with the Interconnection Request submitted by Interconnection Customer dated \_\_\_\_\_; and

**WHEREAS**, Interconnection Customer desires to interconnect the Large Generating Facility with the Transmission System;

**WHEREAS**, Transmission Provider has completed a Definitive Interconnection System Impact Study (the “System Impact Study”) and provided the results of said study to Interconnection Customer; and

**WHEREAS**, Interconnection Customer has requested Transmission Provider to perform an Interconnection Facilities Study to specify and estimate the cost of the equipment, engineering, procurement and construction work needed to implement the conclusions of the Definitive Interconnection System Impact Study in accordance with Good Utility Practice to physically and electrically connect the Large Generating Facility to the Transmission System.

**NOW, THEREFORE**, in consideration of and subject to the mutual covenants contained herein the Parties agreed as follows:

- 1.0 When used in this Agreement, with initial capitalization, the terms specified shall have the meanings indicated in Transmission Provider's FERC-approved Revised LGIP.
- 2.0 Interconnection Customer elects and Transmission Provider shall cause an Interconnection Facilities Study consistent with Section 8 of this Revised LGIP to be performed in accordance with the Tariff.
- 3.0 The scope of the Interconnection Facilities Study shall be subject to the assumptions set forth in Attachment A to this Agreement.
- 4.0 The Interconnection Facilities Study report (i) shall provide a description of, estimated cost of, schedule for required facilities to interconnect the Large Generating Facility to the Transmission System and (ii) shall address the short

circuit, instability, and power flow issues identified in the Definitive Interconnection System Impact Study.

- 5.0 Interconnection Customer shall meet the requirements specified under Section 8.1 of the Revised LGIP prior to the performance of the Interconnection Facilities Study. The time for completion of the Interconnection Facilities Study is specified in Attachment A.
- 6.0 Interconnection Customer shall have provided the deposit as specified in Section 3.1 of the Revised LGIP for the performance of the Definitive Interconnection System Impact Study and the Interconnection Facilities Study.

Upon receipt of the Interconnection Facilities Study results (Phase 4 Results), Transmission Provider shall charge and Interconnection Customer shall pay the actual costs of the Definitive Interconnection System Impact Study which includes costs allocated according to Section 4.2.3 of the Revised LGIP, the cost of the individual Interconnection Facilities Study, and the withdraw penalty calculated pursuant to 3.7.1.1, if applicable.

Any difference between the study deposit and the actual cost of the study shall be paid by or refunded to Interconnection Customer, as appropriate, except as otherwise provided herein. As provided in Section 12.3 of the Revised LGIP, Interconnection Customer has thirty (30) Calendar Days of receipt of an invoice from Transmission Provider to pay any undisputed costs. If invoices are not paid within thirty (30) Calendar Days of receipt of an invoice, Transmission Provider shall draw upon the security provided to settle all accounts, which shall include any offsets of amounts due and owing by Transmission Provider. After the final invoice is paid and all accounts are settled, Transmission Provider shall refund all remaining security.

- 7.0 Miscellaneous. The Interconnection Facilities Study Agreement shall include standard miscellaneous terms including, but not limited to, indemnities, representations, disclaimers, warranties, governing law, amendment, execution, waiver, enforceability and assignment, that reflect best practices in the electric industry, and that are consistent with regional practices, Applicable Laws and Regulations, and the organizational nature of each Party. All of these provisions, to the extent practicable, shall be consistent with the provisions of the Revised LGIP and the LGIA.



**IN WITNESS WHEREOF**, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

**[Insert name of Transmission Provider or Transmission Owner, if applicable]**

By: \_\_\_\_\_ By: \_\_\_\_\_

Title: \_\_\_\_\_ Title: \_\_\_\_\_

Date: \_\_\_\_\_ Date: \_\_\_\_\_

**[Insert name of Interconnection Customer]**

By: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**Attachment A to Appendix 3  
Interconnection Facilities Study Agreement**

**DATA FORM TO BE PROVIDED BY INTERCONNECTION CUSTOMER  
WITH THE INTERCONNECTION FACILITIES STUDY AGREEMENT**

Provide location plan and simplified one-line diagram of the plant and station facilities. For staged projects, please indicate future generation, transmission circuits, etc.

One set of metering is required for each generation connection to the new ring bus or existing Transmission Provider station. Number of generation connections:

On the one line diagram indicate the generation capacity attached at each metering location. (Maximum load on CT/PT)

On the one line diagram indicate the location of auxiliary power. (Minimum load on CT/PT)  
Amps

Will an alternate source of auxiliary power be available during CT/PT maintenance?  
\_\_\_\_\_ Yes \_\_\_\_\_ No

Will a transfer bus on the generation side of the metering require that each meter set be designed for the total plant generation? \_\_\_\_\_ Yes \_\_\_\_\_ No (Please indicate on one line diagram).

What type of control system or PLC will be located at Interconnection Customer's Large Generating Facility?

\_\_\_\_\_

What protocol does the control system or PLC use?

\_\_\_\_\_

Please provide a 7.5-minute quadrangle of the site. Sketch the plant, station, transmission line, and property line.

Physical dimensions of the proposed interconnection station:

\_\_\_\_\_

Bus length from generation to interconnection station:

\_\_\_\_\_

Line length from interconnection station to Transmission Provider's transmission line.

\_\_\_\_\_

Tower number observed in the field. (Painted on tower leg)\* \_\_\_\_\_

Number of third party easements required for transmission lines\*:

---

\* To be completed in coordination with Transmission Provider.

Is the Large Generating Facility in Transmission Provider's service area?

\_\_\_\_\_ Yes \_\_\_\_\_ No      Local provider: \_\_\_\_\_

Please provide proposed schedule dates:

Begin Construction      Date: \_\_\_\_\_

Generator step-up transformer  
receives back feed power      Date: \_\_\_\_\_

Generation Testing      Date: \_\_\_\_\_

Commercial Operation      Date: \_\_\_\_\_

## APPENDIX 4 to Revised LGIP

### Transitional Serial Interconnection Facilities Study Agreement

**THIS AGREEMENT** is made and entered into this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_ by and between \_\_\_\_\_, a \_\_\_\_\_ organized and existing under the laws of the State of \_\_\_\_\_, (“Interconnection Customer,”) and \_\_\_\_\_ a \_\_\_\_\_ existing under the laws of the State of \_\_\_\_\_, (“Transmission Provider”). Interconnection Customer and Transmission Provider each may be referred to as a “Party,” or collectively as the “Parties.”

### RECITALS

**WHEREAS**, Interconnection Customer is proposing to develop a Large Generating Facility or generating capacity addition to an existing Generating Facility consistent with the Interconnection Request submitted by Interconnection Customer dated \_\_\_\_\_; and

**WHEREAS**, Interconnection Customer desires to interconnect the Large Generating Facility with the Transmission System; and

**WHEREAS**, Interconnection Customer has requested Transmission Provider to continue processing its Interconnection Facilities Study to specify and estimate the cost of the equipment, engineering, procurement and construction work needed to implement the conclusions of the System Impact Study in accordance with Good Utility Practice to physically and electrically connect the Large Generating Facility to the Transmission System; and

**WHEREAS**, Interconnection Customer has executed and Transmission Provider has accepted an Interconnection Facilities Study Agreement prior to September 27, 2019; and

**WHEREAS**, Interconnection Customer has provided certain requirements described in Section 5.1.1.1 of the Revised LGIP including a deposit on Transmission Provider’s Interconnection Facilities and Network Upgrades.

**NOW, THEREFORE**, in consideration of and subject to the mutual covenants contained herein the Parties agreed as follows:

- 1.0 When used in this Agreement, with initial capitalization, the terms specified shall have the meanings indicated in Transmission Provider's FERC-approved Revised LGIP.
- 2.0 Interconnection Customer elects and Transmission Provider shall cause to be performed an Interconnection Facilities Study consistent with Section 8 of this Revised LGIP in accordance with the Tariff.
- 3.0 The scope of the Interconnection Facilities Study shall be subject to the assumptions set forth in Attachment A to this Agreement which shall be the same assumptions as the previous Interconnection Facilities Study Agreement.

- 4.0 The Interconnection Facilities Study report (i) shall provide a description, estimated cost of (consistent with Attachment A), schedule for required facilities to interconnect the Large Generating Facility to the Transmission System and (ii) shall address the short circuit, instability, and power flow issues identified in the most recently published System Impact Study.
- 5.0 Interconnection Customer has met certain requirements described in Section 5.1.1.1 of the Revised LGIP. The time for completion of the Interconnection Facilities Study is specified in Attachment A.
- 6.0 Interconnection Customer shall have previously provided the deposit of one hundred thousand dollars (\$100,000.00) for the performance of the Interconnection Facilities Study.

Upon receipt of the Interconnection Facilities Study results, Transmission Provider shall charge and Interconnection Customer shall pay the actual costs of the Interconnection Facilities Study.

Any difference between the study deposit and the actual cost of the study shall be paid by or refunded to Interconnection Customer, as appropriate.

- 7.0 Miscellaneous. The Interconnection Facilities Study Agreement shall include standard miscellaneous terms including, but not limited to, indemnities, representations, disclaimers, warranties, governing law, amendment, execution, waiver, enforceability and assignment, that reflect best practices in the electric industry, and that are consistent with regional practices, Applicable Laws and Regulations, and the organizational nature of each Party. All of these provisions, to the extent practicable, shall be consistent with the provisions of the Revised LGIP and the LGIA.

**IN WITNESS WHEREOF**, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

**[Insert name of Transmission Provider or Transmission Owner, if applicable]**

By: \_\_\_\_\_ By: \_\_\_\_\_

Title: \_\_\_\_\_ Title: \_\_\_\_\_

Date: \_\_\_\_\_ Date: \_\_\_\_\_

**[Insert name of Interconnection Customer]**

By: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**Attachment A to Appendix 4  
Transitional Serial Interconnection Facilities Study Agreement**

**ASSUMPTIONS USED IN CONDUCTING THE  
TRANSITIONAL SERIAL INTERCONNECTION FACILITIES STUDY**

[Assumptions to be completed by Interconnection Customer and Transmission Provider]

## **APPENDIX 5.1 to Revised LGIP Transitional Cluster Study Agreement**

**THIS AGREEMENT** is made and entered into this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_ by and between \_\_\_\_\_, a \_\_\_\_\_ organized and existing under the laws of the State of \_\_\_\_\_, (“Interconnection Customer,”) and \_\_\_\_\_ a \_\_\_\_\_ existing under the laws of the State of \_\_\_\_\_, (“Transmission Provider”). Interconnection Customer and Transmission Provider each may be referred to as a “Party,” or collectively as the “Parties.”

### **RECITALS**

**WHEREAS**, Interconnection Customer is proposing to develop a Large Generating Facility or generating capacity addition to an existing Generating Facility consistent with the Interconnection Request submitted by Interconnection Customer dated \_\_\_\_\_; and

**WHEREAS**, Interconnection Customer desires to interconnect the Large Generating Facility with the Transmission System; and

**WHEREAS**, Interconnection Customer has requested Transmission Provider to perform a “Transitional Cluster Study,” which is a combined system impact and interconnection facility Cluster Study to specify and estimate the cost of the equipment, engineering, procurement and construction work needed to physically and electrically connect the Large Generating Facility to the Transmission System; and

**WHEREAS**, Interconnection Customer has provided certain requirements described in Section 5.1.1.2 of the Revised LGIP including a deposit of five million dollars (\$5,000,000) on expected Transmission Provider’s Interconnection Facilities and Network Upgrades; and

**WHEREAS**, Interconnection Customer has a valid Queue Position as of September 27, 2019; and

**NOW, THEREFORE**, in consideration of and subject to the mutual covenants contained herein the Parties agreed as follows:

- 1.0 When used in this Agreement, with initial capitalization, the terms specified shall have the meanings indicated in Transmission Provider's FERC-approved Revised LGIP.
- 2.0 Interconnection Customer elects and Transmission Provider shall cause to be performed a combined system impact and interconnection facility Cluster Study.
- 3.0 The Transitional Cluster Study shall be based upon the technical information provided by Interconnection Customer in the Interconnection Request. Transmission Provider reserves the right to request additional technical information from Interconnection Customer as may reasonably become



necessary consistent with Good Utility Practice during the course of the Transitional Cluster Study and Interconnection Customer shall provide such data as quickly as reasonable.

4.0 The Transitional Cluster Study report shall provide the following information:

- identification of any circuit breaker short circuit capability limits exceeded as a result of the interconnection;
- identification of any thermal overload or voltage limit violations resulting from the interconnection;
- identification of any instability or inadequately damped response to system disturbances resulting from the interconnection and
- shall provide a description, estimated cost of, schedule for required facilities to interconnect the Large Generating Facility to the Transmission System and (ii) shall address the short circuit, instability, and power flow issues identified in the most recently published System Impact Study.

5.0 Interconnection Customer has met certain requirements described in Section 5.1.1.2 of the Revised LGIP.

6.0 Interconnection Customer shall have previously provided a deposit for the performance of Interconnection Studies.

Upon receipt of the Transitional Cluster Study results, Transmission Provider shall charge and Interconnection Customer shall pay the actual costs of the Transitional Cluster Study.

Any difference between the study deposit and the actual cost of the study shall be paid by or refunded to Interconnection Customer, as appropriate.

7.0 Miscellaneous. The Interconnection Facilities Study Agreement shall include standard miscellaneous terms including, but not limited to, indemnities, representations, disclaimers, warranties, governing law, amendment, execution, waiver, enforceability and assignment, that reflect best practices in the electric industry, and that are consistent with regional practices, Applicable Laws and Regulations, and the organizational nature of each Party. All of these provisions, to the extent practicable, shall be consistent with the provisions of the Revised LGIP and the LGIA.

**IN WITNESS WHEREOF**, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

**[Insert name of Transmission Provider or Transmission Owner, if applicable]**

By: \_\_\_\_\_ By: \_\_\_\_\_

Title: \_\_\_\_\_ Title: \_\_\_\_\_

Date: \_\_\_\_\_ Date: \_\_\_\_\_

**[Insert name of Interconnection Customer]**

By: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**Attachment A to Appendix 5.1  
Transitional Cluster Study Agreement**

**ASSUMPTIONS USED IN CONDUCTING THE  
TRANSITIONAL CLUSTER STUDY (A COMBINED SYSTEM IMPACT AND  
INTERCONNECTION FACILITIES STUDY)**

[Assumptions to be completed by Interconnection Customer Transmission Provider]

**APPENDIX 5.2 to REVISED LGIP  
PROVISIONAL INTERCONNECTION STUDY AGREEMENT**

**THIS AGREEMENT** is made and entered into this \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_ by and between \_\_\_\_\_, a \_\_\_\_\_ organized and existing under the laws of the State of \_\_\_\_\_, ("Interconnection Customer,") and \_\_\_\_\_ a \_\_\_\_\_ existing under the laws of the State of \_\_\_\_\_, ("Transmission Provider "). Interconnection Customer and Transmission Provider each may be referred to as a "Party," or collectively as the "Parties."

**RECITALS**

**WHEREAS**, Interconnection Customer is proposing to develop a Large Generating Facility or generating capacity addition to an existing Generating Facility consistent with the Interconnection Request submitted by Interconnection Customer dated \_\_\_\_\_; and

**WHEREAS**, Interconnection Customer is proposing to establish a provisional interconnection with the Transmission System; and

**WHEREAS**, Interconnection Customer has submitted to Transmission Provider an Interconnection Request; and

**NOW, THEREFORE**, in consideration of and subject to the mutual covenants contained herein the Parties agree as follows:

- 1.0 When used in this Agreement, with initial capitalization, the terms specified shall have the meanings indicated in Transmission Provider's FERC-approved Revised LGIP.
- 2.0 Interconnection Customer elects and Transmission Provider shall cause a Provisional Interconnection Study in order to provide the service described in Article 5.9.2.
- 3.0 3.0 The Provisional Interconnection Study will determine if stability, short circuit, thermal, and/or voltage issues would arise if Interconnection Customer interconnects with Provisional Interconnection Service. Transmission Provider shall determine any Interconnection Facilities, Network Upgrades, Distribution Upgrades, or System Protection Facilities necessary to meet the requirements of NERC, or any applicable Regional Entity for the interconnection of the new, modified and/or expanded Generating Facility.
- 4.0 4.0 The Provisional Interconnection Study shall determine the initial maximum permissible output of the Generating Facility.
- 5.0 The scope of the Provisional Interconnection Study shall be subject to the assumptions set forth in Attachment A to this Agreement.

- 6.0 Interconnection Customer shall provide a deposit of \$10,000 for the performance of the Provisional Interconnection Study. Transmission Provider's good faith estimate for the time of completion of the Provisional Interconnection Service Study is [insert date].

Upon receipt of the Provisional Interconnection Study, Transmission Provider shall charge and Interconnection Customer shall pay the actual costs of the Provisional Interconnection Study.

Any difference between the initial payment and the actual cost of the study shall be paid by or refunded to Interconnection Customer, as appropriate.

- 7.0 Miscellaneous. The Provisional Interconnection Study Agreement shall include standard miscellaneous terms including, but not limited to, indemnities, representations, disclaimers, warranties, governing law, amendment, execution, waiver, enforceability and assignment, that reflect best practices in the electric industry, and that are consistent with regional practices, Applicable Laws and Regulations, and the organizational nature of each Party. All of these provisions, to the extent practicable, shall be consistent with the provisions of the Revised LGIP and the LGIA.

**IN WITNESS WHEREOF**, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

**[Insert name of Transmission Provider or Transmission Owner, if applicable]**

By: \_\_\_\_\_ By: \_\_\_\_\_

Title: \_\_\_\_\_ Title: \_\_\_\_\_

Date: \_\_\_\_\_ Date: \_\_\_\_\_

**[Insert name of Interconnection Customer]**

By: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**Attachment A**  
**Appendix 5.2**  
**Provisional Interconnection**  
**Study Agreement**

**ASSUMPTIONS USED IN CONDUCTING  
THE PROVISIONAL INTERCONNECTION STUDY**

[To be completed by Transmission Provider consistent with Article 5.9.2 of the LGIA.]

## **APPENDIX 5.3 to REVISED LGIP SURPLUS INTERCONNECTION STUDY AGREEMENT**

**THIS AGREEMENT** is made and entered into this \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_ by and between \_\_\_\_\_, a \_\_\_\_\_ organized and existing under the laws of the State of \_\_\_\_\_, ("Interconnection Customer,") and \_\_\_\_\_ a \_\_\_\_\_ existing under the laws of the State of \_\_\_\_\_, ("Transmission Provider "). Interconnection Customer and Transmission Provider each may be referred to as a "Party," or collectively as the "Parties."

### **RECITALS**

**WHEREAS**, Interconnection Customer is requesting to utilize Surplus Interconnection Service as described in Section 3.3 of the Revised LGIP; and

**WHEREAS**, Interconnection Customer is proposing to utilize an existing interconnection with the Transmission System; and

**NOW, THEREFORE**, in consideration of and subject to the mutual covenants contained herein the Parties agree as follows:

- 1.0 When used in this Agreement, with initial capitalization, the terms specified shall have the meanings indicated in Transmission Provider's FERC-approved Revised LGIP.
- 2.0 Interconnection Customer elects and Transmission Provider shall cause an Surplus Interconnection Study consistent with Section 3.3 of this Revised LGIP to be performed in accordance with the Tariff.
- 3.0 The scope of the Surplus Interconnection Study shall be subject to the assumptions set forth in Attachment A to this Agreement.
- 4.0 Studies for Surplus Interconnection Service shall consist of reactive power, short circuit/fault duty, stability analyses, and any other appropriate studies. Steady-state (thermal/voltage) analyses may be performed as necessary to ensure that all required reliability conditions are studied. If the Surplus Interconnection Service was not studied under off-peak conditions, off-peak steady state analyses shall be performed to the required level necessary to demonstrate reliable operation of the Surplus Interconnection Service. If the original System Impact Study is not available for the Surplus Interconnection Service, both off-peak and peak analysis may need to be performed for the existing Generating Facility associated with the request for Surplus Interconnection Service. The reactive power, short circuit/fault duty, stability, and steady-state analyses for Surplus Interconnection Service will identify

any additional Interconnection Facilities and/or Network Upgrades. Surplus Interconnection Service is only available up to the amount that can be accommodated without requiring new Network Upgrades.

- 5.0 Interconnection Customer shall provide a deposit of \$10,000 for the performance of the Surplus Interconnection Study. Transmission Provider's good faith estimate for the time of completion of the Surplus Interconnection Study is [insert date].

Upon receipt of the Surplus Interconnection Study, Transmission Provider shall charge and Interconnection Customer shall pay the actual costs of the Surplus Interconnection Study.

Any difference between the initial payment and the actual cost of the study shall be paid by or refunded to Interconnection Customer, as appropriate.

- 7.0 Miscellaneous. The Surplus Interconnection Study shall include standard miscellaneous terms including, but not limited to, indemnities, representations, disclaimers, warranties, governing law, amendment, execution, waiver, enforceability and assignment, that reflect best practices in the electric industry, and that are consistent with regional practices, Applicable Laws and Regulations, and the organizational nature of each Party. All of these provisions, to the extent practicable, shall be consistent with the provisions of the Revised LGIP and the LGIA.

**IN WITNESS WHEREOF**, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

**[Insert name of Transmission Provider or Transmission Owner, if applicable]**

By: \_\_\_\_\_ By: \_\_\_\_\_

Title: \_\_\_\_\_ Title: \_\_\_\_\_

Date: \_\_\_\_\_ Date: \_\_\_\_\_

**[Insert name of Interconnection Customer]**

By: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_



**Attachment A**  
**Appendix 5.3**  
**Surplus Interconnection**  
**Study Agreement**

**ASSUMPTIONS USED IN CONDUCTING  
THE SURPLUS INTERCONNECTION STUDY**

[To be completed by Interconnection Customer and Transmission Provider consistent with  
Section 3.3 of the Revised LGIP.]

**APPENDIX 5.4 to Revised LGIP**  
**INFORMATIONAL INTERCONNECTION STUDY REQUEST**

1. The undersigned Interconnection Customer submits this request to evaluate the interconnection of its Generating Facility with Transmission Provider's Transmission System pursuant to the Tariff.
2. The type of interconnection service to be evaluated (check one):  
☐ Energy Resource Interconnection Service  
☐ Network Resource Interconnection Service
3. Interconnection Customer provides the following information:
  - a. Address or location of the proposed new Large Generating Facility site (to the extent known) or, in the case of an existing Generating Facility, the name and specific location of the existing Generating Facility;
  - b. Maximum summer at \_\_\_\_ degrees C and winter at \_\_\_\_ degrees C megawatt electrical output of the proposed new Large Generating Facility or the amount of megawatt increase in the generating capacity of an existing Generating Facility;
  - c. General description of the equipment configuration;
  - d. Commercial Operation Date to be studied (Day, Month, and Year);
  - e. Name, address, telephone number, and e-mail address of Interconnection Customer's contact person;
  - f. Approximate location of the proposed Point of Interconnection;
  - g. Interconnection Customer Data (set forth in Attachment A)
  - h. Primary frequency response operating range for electric storage resources.
  - i. Requested capacity (in MW) of Interconnection Service (if lower than the Generating Facility Capacity); and
  - j. A Scope of Work including any additional information that may be reasonably required.
4. \$10,000 study deposit amount as specified in the Revised LGIP.
5. For study purposes, the point of delivery to deliver within the Control Area or to adjoining Control Area if the Generating Facility is not designated a Network Resource pursuant to Section 30.2 of the Tariff.
6. This Informational Interconnection Study Request shall be submitted to the representative indicated below:

[To be completed by Transmission Provider]

7. Representative of Interconnection Customer to contact:

[To be completed by Interconnection Customer]

8. This Interconnection Request is submitted by:

Name of Interconnection Customer: \_\_\_\_\_

By (signature): \_\_\_\_\_

Name (type or print): \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**Attachment A to Appendix 5.4  
Informational Interconnection Study Request**

**LARGE GENERATING FACILITY DATA**

**UNIT RATINGS**

kVA \_\_\_\_\_ °F \_\_\_\_\_ Voltage \_\_\_\_\_  
Power Factor \_\_\_\_\_  
Speed (RPM) \_\_\_\_\_ Connection (e.g. Wye) \_\_\_\_\_  
Short Circuit Ratio \_\_\_\_\_ Frequency, Hertz \_\_\_\_\_  
Stator Amperes at Rated kVA \_\_\_\_\_ Field Volts \_\_\_\_\_  
Max Turbine MW \_\_\_\_\_ °F \_\_\_\_\_

**Primary frequency response operating range for electric storage resources.**

Minimum State of Charge: \_\_\_\_\_  
Maximum State of Charge: \_\_\_\_\_

**COMBINED TURBINE-GENERATOR-EXCITER INERTIA DATA**

Inertia Constant, H = \_\_\_\_\_ kW sec/kVA  
Moment-of-Inertia,  $WR^2$  = \_\_\_\_\_ lb. ft.<sup>2</sup>

**REACTANCE DATA (PER UNIT-RATED KVA)**

**DIRECT AXIS QUADRATURE AXIS**

Synchronous – saturated	$X_{dv}$ _____	$X_{qv}$ _____
Synchronous – unsaturated	$X_{di}$ _____	$X_{qi}$ _____
Transient – saturated	$X'_{dv}$ _____	$X'_{qv}$ _____
Transient – unsaturated	$X'_{di}$ _____	$X'_{qi}$ _____
Subtransient – saturated	$X''_{dv}$ _____	$X''_{qv}$ _____
Subtransient – unsaturated	$X''_{di}$ _____	$X''_{qi}$ _____
Negative Sequence – saturated	$X_{2v}$ _____	
Negative Sequence – unsaturated	$X_{2i}$ _____	
Zero Sequence – saturated	$X_{0v}$ _____	
Zero Sequence – unsaturated	$X_{0i}$ _____	
Leakage Reactance	$X_{lm}$ _____	

Open Circuit	$T'_{do}$ _____	$T'_{qo}$ _____
Three-Phase Short Circuit Transient	$T'_{d3}$ _____	$T'_q$ _____
Line to Line Short Circuit Transient	$T'_{d1}$ _____	
Short Circuit Subtransient	$T''_d$ _____	$T''_q$ _____
Open Circuit Subtransient	$T'_{d2}$ _____	
Line to Neutral Short Circuit Transient	$T''_{do}$ _____	$T''_{qo}$ _____

**FIELD TIME CONSTANT DATA (SEC)  
 ARMATURE TIME CONSTANT DATA (SEC)**

Three Phase Short Circuit	$T_{a3}$ _____
Line to Line Short Circuit	$T_{a2}$ _____
Line to Neutral Short Circuit	$T_{a1}$ _____

NOTE: If requested information is not applicable, indicate by marking "N/A."

**MW CAPABILITY AND PLANT CONFIGURATION  
 LARGE GENERATING FACILITY DATA**

**ARMATURE WINDING RESISTANCE DATA (PER UNIT)**

Positive	$R_1$ _____
Negative	$R_2$ _____
Zero	$R_0$ _____

Rotor Short Time Thermal Capacity  $I_2^2t$  = \_\_\_\_\_  
 Field Current at Rated kVA, Armature Voltage and PF = \_\_\_\_\_amps  
 Field Current at Rated kVA and Armature Voltage, 0 PF = \_\_\_\_\_amps  
 Three Phase Armature Winding Capacitance = \_\_\_\_\_microfarad  
 Field Winding Resistance = \_\_\_\_\_ ohms \_\_\_\_\_°C  
 Armature Winding Resistance (Per Phase) = \_\_\_\_\_ ohms \_\_\_\_\_°C

**CURVES**

Provide Saturation, Vee, Reactive Capability, Capacity Temperature Correction curves.  
 Designate normal and emergency Hydrogen Pressure operating range for multiple curves.

**GENERATOR STEP-UP TRANSFORMER DATA RATINGS**

Capacity	Self-cooled/ Maximum Nameplate
_____	/_____kVA

Voltage Ratio(Generator Side/System side/Tertiary)  
\_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_ kV

Winding Connections (Low V/High V/Tertiary V (Delta or Wye))  
\_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_

Fixed Taps Available \_\_\_\_\_

Present Tap Setting \_\_\_\_\_

If more than one transformer stage is used to deliver the output from the proposed generator to the Transmission System, please provide the information above for each transformer or transformer type.

#### IMPEDANCE

Positive

$Z_1$  (on self-cooled kVA rating) \_\_\_\_\_ % \_\_\_\_\_ X/R

Zero

$Z_0$  (on self-cooled kVA rating) \_\_\_\_\_ % \_\_\_\_\_ X/R

#### EXCITATION SYSTEM DATA

Identify appropriate IEEE model block diagram of excitation system and power system stabilizer (PSS) for computer representation in power system stability simulations and the corresponding excitation system and PSS constants for use in the model.

#### GOVERNOR SYSTEM DATA

Identify appropriate IEEE model block diagram of governor system for computer representation in power system stability simulations and the corresponding governor system constants for use in the model.

#### WIND GENERATORS

Number of generators to be interconnected pursuant to this Interconnection Request:  
\_\_\_\_\_

Elevation: \_\_\_\_\_ Single Phase \_\_\_\_\_ Three Phase \_\_\_\_\_

Inverter manufacturer, model name, number, and version:  
\_\_\_\_\_

List of adjustable setpoints for the protective equipment or software:  
\_\_\_\_\_

Note: A completed General Electric Company Power Systems Load Flow (PSLF) data sheet or other compatible formats, such as IEEE and PTI power flow models, must be supplied with the Interconnection Request. If other data sheets are more appropriate to the proposed device, then they shall be provided and discussed at Scoping Meeting.

### INDUCTION GENERATORS

- (\*) Field Volts: \_\_\_\_\_
- (\*) Field Amperes: \_\_\_\_\_
- (\*) Motoring Power (kW): \_\_\_\_\_
- (\*) Neutral Grounding Resistor (If Applicable): \_\_\_\_\_
- (\*)  $I_2^2t$  or K (Heating Time Constant): \_\_\_\_\_
- (\*) Rotor Resistance: \_\_\_\_\_
- (\*) Stator Resistance: \_\_\_\_\_
- (\*) Stator Reactance: \_\_\_\_\_
- (\*) Rotor Reactance: \_\_\_\_\_
- (\*) Magnetizing Reactance: \_\_\_\_\_
- (\*) Short Circuit Reactance: \_\_\_\_\_
- (\*) Exciting Current: \_\_\_\_\_
- (\*) Temperature Rise: \_\_\_\_\_
- (\*) Frame Size: \_\_\_\_\_
- (\*) Design Letter: \_\_\_\_\_
- (\*) Reactive Power Required In Vars (No Load): \_\_\_\_\_
- (\*) Reactive Power Required In Vars (Full Load): \_\_\_\_\_
- (\*) Total Rotating Inertia, H: \_\_\_\_\_ Per Unit on KVA Base

Note: Please consult Transmission Provider prior to submitting the Informational Interconnection Study Request to determine if the information designated by (\*) is required.

## **APPENDIX 5.5 to Revised LGIP INFORMATIONAL INTERCONNECTION STUDY AGREEMENT**

**THIS AGREEMENT** is made and entered into this \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_ by and between \_\_\_\_\_, a \_\_\_\_\_ organized and existing under the laws of the State of \_\_\_\_\_, ("Interconnection Customer,") and \_\_\_\_\_ a \_\_\_\_\_ existing under the laws of the State of \_\_\_\_\_, ("Transmission Provider"). Interconnection Customer and Transmission Provider each may be referred to as a "Party," or collectively as the "Parties."

### **RECITALS**

**WHEREAS**, Interconnection Customer is evaluating developing a Large Generating Facility or generating capacity addition to an existing Generating Facility and

**WHEREAS**, Interconnection Customer is proposing to evaluate an interconnection with the Transmission System; and

**WHEREAS**, Interconnection Customer has submitted to Transmission Provider an Informational Interconnection Study Interconnection Request; and

**NOW, THEREFORE**, in consideration of and subject to the mutual covenants contained herein the Parties agree as follows:

- 1.0 When used in this Agreement, with initial capitalization, the terms specified shall have the meanings indicated in Transmission Provider's FERC-approved Revised LGIP.
- 2.0 Interconnection Customer elects and Transmission Provider shall cause an Informational Interconnection Study consistent with Section 6 of this Revised LGIP to be performed in accordance with the Tariff.
- 3.0 The scope of the Informational Interconnection Study shall be subject to the assumptions set forth in Attachment A to this Agreement.
- 4.0 The Informational Interconnection Study shall be performed solely for informational purposes.
- 5.0 The Informational Interconnection Study report shall provide a sensitivity analysis based on the assumptions specified by Interconnection Customer in Attachment A to this Agreement. The Informational Interconnection Study shall identify Transmission Provider's Interconnection Facilities and the Network Upgrades, and the estimated cost thereof that may be required to



provide transmission service or Interconnection Service based upon the assumptions specified by Interconnection Customer in Attachment A.

- 6.0 Interconnection Customer shall provide a deposit of ten thousand dollars (\$10,000.00) for the performance of the Informational Interconnection Study. Transmission Provider's good faith estimate for the time of completion of the Informational Interconnection Study is [insert date].

Upon receipt of the Informational Interconnection Study, Transmission Provider shall charge and Interconnection Customer shall pay the actual costs of the Informational Interconnection Study.

Any difference between the initial deposit and the actual cost of the study shall be paid by or refunded to Interconnection Customer, as appropriate.

- 7.0 Miscellaneous. The Informational Interconnection Study Agreement shall include standard miscellaneous terms including, but not limited to, indemnities, representations, disclaimers, warranties, governing law, amendment, execution, waiver, enforceability and assignment, that reflect best practices in the electric industry, and that are consistent with regional practices, Applicable Laws and Regulations, and the organizational nature of each Party. All of these provisions, to the extent practicable, shall be consistent with the provisions of the Revised LGIP and the LGIA.

**IN WITNESS WHEREOF**, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

**[Insert name of Transmission Provider or Transmission Owner, if applicable]**

By: \_\_\_\_\_ By: \_\_\_\_\_

Title: \_\_\_\_\_ Title: \_\_\_\_\_

Date: \_\_\_\_\_ Date: \_\_\_\_\_

**[Insert name of Interconnection Customer]**

By: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**APPENDIX 6 to Revised LGIP**  
**STANDARD LARGE GENERATOR INTERCONNECTION AGREEMENT (LGIA)**  
**(Applicable to Generating Facilities that exceed 20 MW)**

## TABLE OF CONTENTS

Article 1. Definitions	
Article 2. Effective Date, Term, and Termination	
2.1	Effective Date.
2.2	Term of Agreement.
2.3	Termination Procedures.
2.3.1	Written Notice.
2.3.2	Default.
2.4	Termination Costs.
2.5	Disconnection.
2.6	Survival.
Article 3. Regulatory Filings	
3.1	Filing.
Article 4. Scope of Service	
4.1	Interconnection Product Options.
4.1.1	Energy Resource Interconnection Service.
4.1.1.1	The Product.
4.1.1.2	Transmission Delivery Service Implications.
4.1.2	Network Resource Interconnection Service.
4.1.2.1	The Product.
4.1.2.2	Transmission Delivery Service Implications.
4.2	Provision of Service.
4.3	Performance Standards.
4.4	No Transmission Delivery Service.
4.5	Interconnection Customer Provided Services
Article 5. Interconnection Facilities Engineering, Procurement, and Construction	
5.1	Options.
5.1.1	Standard Option.
5.1.2	Alternate Option.
5.1.3	Option to Build.
5.1.4	Negotiated Option.
5.2	General Conditions Applicable to Option to Build.
5.3	Liquidated Damages.
5.4	Power System Stabilizers.
5.5	Equipment Procurement.
5.6	Construction Commencement.
5.7	Work Progress.
5.8	Information Exchange.
5.9	Other Interconnection Options
5.9.1	Limited Operation.
5.9.2	Provisional Interconnection Service.
5.10	Interconnection Customer's Interconnection Facilities ("ICIF").
5.10.1	Interconnection Customer's Interconnection Facility Specifications.
5.10.2	Transmission Provider's Review.
5.10.3	ICIF Construction.
5.11	Transmission Provider's Interconnection Facilities Construction.

- 5.12 Access Rights.
- 5.13 Lands of Other Property Owners.
- 5.14 Permits.
- 5.15 Early Construction of Base Case Facilities.
- 5.16 Suspension.
  - 5.16.1 Effect of Missed Interconnection Customer LGIA Milestones.
  - 5.16.2 Effect of Suspension; Parties Obligations.
- 5.17 Taxes
  - 5.17.1 Interconnection Customer Payments Not Taxable.
  - 5.17.2 Representations and Covenants.
  - 5.17.3 Indemnification for the Cost Consequences of Current Tax Liability Imposed Upon the Transmission Provider.
  - 5.17.4 Tax Gross-Up Amount.
  - 5.17.5 Private Letter Ruling or Change or Clarification of Law.
  - 5.17.6 Subsequent Taxable Events.
  - 5.17.7 Contests.
  - 5.17.8 Refund.
  - 5.17.9 Taxes Other Than Income Taxes.
  - 5.17.10 Transmission Owners Who Are Not Transmission Providers.
- 5.18 Tax Status.
- 5.19 Modification.
  - 5.19.1 General.
  - 5.19.2 Standards.
  - 5.19.3 Modification Costs.
- Article 6. Testing and Inspection
  - 6.1 Pre-Commercial Operation Date Testing and Modifications.
  - 6.2 Post-Commercial Operation Date Testing and Modifications.
  - 6.3 Right to Observe Testing.
  - 6.4 Right to Inspect.
- Article 7. Metering
  - 7.1 General.
  - 7.2 Check Meters.
  - 7.3 Standards.
  - 7.4 Testing of Metering Equipment.
  - 7.5 Metering Data.
- Article 8. Communications
  - 8.1 Interconnection Customer Obligations.
  - 8.2 Remote Terminal Unit.
  - 8.3 No Annexation.
  - 8.4 Provision of Data from a Variable Energy Resource.
- Article 9. Operations
  - 9.1 General.
  - 9.2 Control Area Notification.
  - 9.3 Transmission Provider Obligations.
  - 9.4 Interconnection Customer Obligations.
  - 9.5 Start-Up and Synchronization.
  - 9.6 Reactive Power and Primary Frequency Response.
    - 9.6.1 Power Factor Design Criteria.

- 9.6.1.1 Synchronous Generation.
      - 9.6.1.2 Non-Synchronous Generation.
    - 9.6.2 Voltage Schedules.
      - 9.6.2.1 Voltage Regulators.
    - 9.6.3 Payment for Reactive Power.
    - 9.6.4 Primary Frequency Response.
      - 9.6.4.1 Governor or Equivalent Controls.
      - 9.6.4.2 Timely and Sustained Response.
      - 9.6.4.3 Exemptions.
      - 9.6.4.4 Electric Storage Resources.
  - 9.7 Outages and Interruptions.
    - 9.7.1 Outages.
      - 9.7.1.1 Outage Authority and Coordination.
      - 9.7.1.2 Outage Schedules.
      - 9.7.1.3 Outage Restoration.
    - 9.7.2 Interruption of Service.
    - 9.7.3 Under-Frequency and Over Frequency Conditions.
    - 9.7.4 System Protection and Other Control Requirements.
      - 9.7.4.1 System Protection Facilities.
    - 9.7.5 Requirements for Protection.
    - 9.7.6 Power Quality.
  - 9.8 Switching and Tagging Rules.
  - 9.9 Use of Interconnection Facilities by Third Parties.
    - 9.9.1 Purpose of Interconnection Facilities.
    - 9.9.2 Third Party Users.
  - 9.10 Disturbance Analysis Data Exchange.
- Article 10. Maintenance.
- 10.1 Transmission Provider Obligations.
  - 10.2 Interconnection Customer Obligations.
  - 10.3 Coordination.
  - 10.4 Secondary Systems.
  - 10.5 Operating and Maintenance Expenses.
- Article 11. Performance Obligation.
- 11.1 Interconnection Customer Interconnection Facilities.
  - 11.2 Transmission Provider's Interconnection Facilities.
  - 11.3 Network Upgrades and Distribution Upgrades.
  - 11.4 Transmission Credits.
    - 11.4.1 Repayment of Amounts Advanced for Network Upgrades.
    - 11.4.2 Special Provisions for Affected Systems.
  - 11.5 Provision of Security.
  - 11.6 Interconnection Customer Compensation.
    - 11.6.1 Interconnection Customer Compensation for Actions During Emergency Condition.
- Article 12. Invoice.
- 12.1 General.
  - 12.2 Final Invoice.
  - 12.3 Payment.
  - 12.4 Disputes.

Article 13. Emergencies

- 13.1 Definition.
- 13.2 Obligations.
- 13.3 Notice.
- 13.4 Immediate Action.
- 13.5 Transmission Provider Authority.
  - 13.5.1 General.
  - 13.5.2 Reduction and Disconnection.
- 13.6 Interconnection Customer Authority.
- 13.7 Limited Liability.

Article 14. Regulatory Requirements and Governing Law

- 14.1 Regulatory Requirements.
- 14.2 Governing Law.

Article 15. Notices

- 15.1 General.
- 15.2 Billings and Payments.
- 15.3 Alternative Forms of Notice.
- 15.4 Operations and Maintenance Notice.

Article 16. Force Majeure

Article 17. Default

- 17.1 Default.
  - 17.1.1 General.
  - 17.1.2 Right to Terminate.

Article 18. Indemnity, Consequential Damages and Insurance

- 18.1 Indemnity.
  - 18.1.1 Indemnified Person.
  - 18.1.2 Indemnifying Party.
  - 18.1.3 Indemnity Procedures.
- 18.2 Consequential Damages.
- 18.3 Insurance.

Article 19. Assignment

- 19.1 Assignment.

Article 20. Severability

- 20.1 Severability.

Article 21. Comparability

Article 22. Confidentiality

- 22.1 Confidentiality.
  - 22.1.1 Term.
  - 22.1.2 Scope.
  - 22.1.3 Release of Confidential Information.
  - 22.1.4 Rights.
  - 22.1.5 No Warranties.
  - 22.1.6 Standard of Care.
  - 22.1.7 Order of Disclosure.
  - 22.1.8 Termination of Agreement.
  - 22.1.9 Remedies.
  - 22.1.10 Disclosure to FERC, its Staff, or a State.

Article 23. Environmental Releases

Article 24. Information Requirements

- 24.1 Information Acquisition.
- 24.2 Information Submission by Transmission Provider.
- 24.3 Updated Information Submission by Interconnection Customer.
- 24.4 Information Supplementation.

Article 25. Information Access and Audit Rights

- 25.1 Information Access.
- 25.2 Reporting of Non-Force Majeure Events.
- 25.3 Audit Rights.
- 25.4 Audit Rights Periods.
  - 25.4.1 Audit Rights Period for Construction-Related Accounts and Records.
  - 25.4.2 Audit Rights Period for All Other Accounts and Records.
- 25.5 Audit Results.

Article 26. Subcontractors

- 26.1 General.
- 26.2 Responsibility of Principal.
- 26.3 No Limitation by Insurance.

Article 27. Disputes

- 27.1 Submission.
- 27.2 External Arbitration Procedures.
- 27.3 Arbitration Decisions.
- 27.4 Costs.

Article 28. Representations, Warranties, and Covenants

- 28.1 General.
  - 28.1.1 Good Standing.
  - 28.1.2 Authority.
  - 28.1.3 No Conflict.
  - 28.1.4 Consent and Approval.

Article 29. Joint Operating Committee

- 29.1 Joint Operating Committee.

Article 30. Miscellaneous

- 30.1 Binding Effect.
- 30.2 Conflicts.
- 30.3 Rules of Interpretation.
- 30.4 Entire Agreement.
- 30.5 No Third Party Beneficiaries.
- 30.6 Waiver.
- 30.7 Headings.
- 30.8 Multiple Counterparts.
- 30.9 Amendment.
- 30.10 Modification by the Parties.
- 30.11 Reservation of Rights.
- 30.12 No Partnership.

Appendix A - Interconnection Facilities, Network Upgrades, and Distribution Upgrades

Appendix B – LGIA Milestones

Appendix C – Interconnection Details

Appendix D – Security Arrangements Details

Appendix E – Commercial Operation Date

Appendix F – Addresses for Delivery of Notices and Billings

Appendix G – Requirements of Generators Relying on Newer Technologies



## STANDARD LARGE GENERATOR INTERCONNECTION AGREEMENT

**THIS STANDARD LARGE GENERATOR INTERCONNECTION AGREEMENT** (“Agreement” or “LGIA”) is made and entered into this \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, by and between \_\_\_\_\_, a \_\_\_\_\_, organized and existing under the laws of the State/Commonwealth of \_\_\_\_\_, (“Interconnection Customer” with a Large Generating Facility), and \_\_\_\_\_, a \_\_\_\_\_, organized and existing under the laws of the State/Commonwealth of \_\_\_\_\_, (“Transmission Provider and/or Transmission Owner”). Interconnection Customer and Transmission Provider each may be referred to as a “Party” or collectively as the “Parties.”

### Recitals

**WHEREAS**, Transmission Provider operates the Transmission System; and

**WHEREAS**, Interconnection Customer intends to own, lease and/or control and operate the Generating Facility identified as a Large Generating Facility in Appendix C to this Agreement; and,

**WHEREAS**, Interconnection Customer and Transmission Provider have agreed to enter into this Agreement for the purpose of interconnecting the Large Generating Facility with the Transmission System;

**NOW, THEREFORE**, in consideration of and subject to the mutual covenants contained herein, it is agreed:

When used in this Standard Large Generator Interconnection Agreement, terms with initial capitalization that are not defined in Article 1 shall have the meanings specified in the Article in which they are used or the Open Access Transmission Tariff (Tariff).

### Article 1. Definitions

**Adverse System Impact** shall mean the negative effects due to technical or operational limits on conductors or equipment being exceeded that may compromise the safety and reliability of the electric system.

**Affected System** shall mean an electric system other than the Transmission Provider's Transmission System that may be affected by the proposed interconnection.

**Affected System Operator** shall mean the entity that operates an Affected System.

**Affiliate** shall mean, with respect to a corporation, partnership or other entity, each such other corporation, partnership or other entity that directly or indirectly, through one or more

intermediaries, controls, is controlled by, or is under common control with, such corporation, partnership or other entity.

**Ancillary Services** shall mean those services that are necessary to support the transmission of capacity and energy from resources to loads while maintaining reliable operation of the Transmission Provider's Transmission System in accordance with Good Utility Practice.

**Applicable Laws and Regulations** shall mean all duly promulgated applicable federal, state and local laws, regulations, rules, ordinances, codes, decrees, judgments, directives, or judicial or administrative orders, permits and other duly authorized actions of any Governmental Authority.

**Applicable Reliability Council** shall mean the reliability council applicable to the Transmission System to which the Generating Facility is directly interconnected.

**Applicable Reliability Standards** shall mean the requirements and guidelines of NERC, the Applicable Reliability Council, and the Control Area of the Transmission System to which the Generating Facility is directly interconnected.

**Base Case** shall mean the base case power flow, short circuit, and stability data bases used for the Interconnection Studies by the Transmission Provider or Interconnection Customer.

**Breach** shall mean the failure of a Party to perform or observe any material term or condition of the Standard Large Generator Interconnection Agreement.

**Breaching Party** shall mean a Party that is in Breach of the Standard Large Generator Interconnection Agreement.

**Business Day** shall mean Monday through Friday, excluding Federal Holidays.

**Calendar Day** shall mean any day including Saturday, Sunday or a Federal Holiday. If a requirement due date lands on a Saturday, Sunday or Federal Holiday, the requirement is due the next Business Day.

**Cluster** shall mean a group of Interconnection Requests (one or more) that are studied together for the purpose of conducting the Interconnection Studies

**Clustering** shall mean a group of Interconnection Requests (one or more) that are studied together for the purpose of conducting the Interconnection Studies

**Commercial Operation** shall mean the status of a Generating Facility that has commenced generating electricity for sale, excluding electricity generated during Trial Operation.

**Commercial Operation Date** of a unit shall mean the date on which the Generating Facility commences Commercial Operation as agreed to by the Parties pursuant to Appendix E to the Standard Large Generator Interconnection Agreement.

**Confidential Information** shall mean any confidential, proprietary or trade secret information of a plan, specification, pattern, procedure, design, device, list, concept, policy or compilation relating to the present or planned business of a Party, which is designated as confidential by the Party supplying the information, whether conveyed orally, electronically, in writing, through inspection, or otherwise.

**Control Area** shall mean an electrical system or systems bounded by interconnection metering and telemetry, capable of controlling generation to maintain its interchange schedule with other Control Areas and contributing to frequency regulation of the interconnection. A Control Area must be certified by an Applicable NERC Regional Reliability Entity. Control Area shall have the same meaning as Balancing Authority Area as defined by NERC.

**Default** shall mean the failure of a Breaching Party to cure its Breach in accordance with Article 17 of the Standard Large Generator Interconnection Agreement.

**Definitive Interconnection Study Process (“Definitive Interconnection Study”)** shall mean the complete definitive study process inclusive of the DISIS Request Window, Customer Engagement Window, Definitive Interconnection System Impact Study, and the Interconnection Facilities Study. Both the Resource Solicitation Cluster and the DISIS Cluster are processed under the Definitive Interconnection Study.

**Definitive Interconnection System Impact Study (“DISIS”)** shall mean an engineering study that evaluates the impact of a Cluster of Interconnection Requests on the safety and reliability of the Transmission System and, if applicable, an Affected System.

**Definitive Interconnection System Impact Study Agreement (“DISIS Agreement”)** shall mean the form of agreement contained in Appendix 2 of the Revised LGIP for conducting the Definitive Interconnection System Impact Study.

**Definitive Interconnection System Impact Study Cluster (“DISIS Cluster”)** shall mean an engineering study that evaluates the impact of a Cluster of Interconnection Requests on the safety and reliability of Transmission System and, if applicable, an Affected System.

**DISIS Request Window** shall have the meaning set forth in Section 4.2.1 of the Revised LGIP.

**Dispute Resolution** shall mean the procedure for resolution of a dispute between the Parties in which they will first attempt to resolve the dispute on an informal basis.

**Distribution System** shall mean the Transmission Provider's facilities and equipment used to transmit electricity to ultimate usage points such as homes and industries directly from nearby generators or from interchanges with higher voltage transmission networks which transport bulk power over longer distances. The voltage levels at which distribution systems operate differ among areas.

**Distribution Upgrades** shall mean the additions, modifications, and upgrades to the Transmission Provider's Distribution System at or beyond the Point of Interconnection to facilitate interconnection of the Generating Facility and render the transmission service

necessary to affect Interconnection Customer's wholesale sale of electricity in interstate commerce. Distribution Upgrades do not include Interconnection Facilities.

**Effective Date** shall mean the date on which the Standard Large Generator Interconnection Agreement becomes effective upon execution by the Parties subject to acceptance by FERC, or if filed unexecuted, upon the date specified by FERC.

**Emergency Condition** shall mean a condition or situation: (1) that in the judgment of the Party making the claim is imminently likely to endanger life or property; or (2) that, in the case of a Transmission Provider, is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to Transmission Provider's Transmission System, Transmission Provider's Interconnection Facilities or the electric systems of others to which the Transmission Provider's Transmission System is directly connected; or (3) that, in the case of Interconnection Customer, is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to, the Generating Facility or Interconnection Customer's Interconnection Facilities. System restoration and black start shall be considered Emergency Conditions; provided, that Interconnection Customer is not obligated by the Standard Large Generator Interconnection Agreement to possess black start capability.

**Energy Resource Interconnection Service** shall mean an Interconnection Service that allows the Interconnection Customer to connect its Generating Facility to the Transmission Provider's Transmission System to be eligible to deliver the Generating Facility's electric output using the existing firm or non-firm capacity of the Transmission Provider's Transmission System on an as available basis. Energy Resource Interconnection Service in and of itself does not convey transmission service.

**Engineering & Procurement (E&P) Agreement** shall mean an agreement that authorizes the Transmission Provider to begin engineering and procurement of long lead-time items necessary for the establishment of the interconnection in order to advance the implementation of the Interconnection Request.

**Environmental Law** shall mean Applicable Laws or Regulations relating to pollution or protection of the environment or natural resources.

**Federal Power Act** shall mean the Federal Power Act, as amended, 16 U.S.C. §§ 791a et seq.

**FERC** shall mean the Federal Energy Regulatory Commission (Commission) or its successor.

**Force Majeure** shall mean any act of God, labor disturbance, act of the public enemy, war, insurrection, riot, fire, storm or flood, explosion, breakage or accident to machinery or equipment, any order, regulation or restriction imposed by governmental, military or lawfully established civilian authorities, or any other cause beyond a Party's control. A Force Majeure event does not include acts of negligence or intentional wrongdoing by the Party claiming Force Majeure.

**Generating Facility** shall mean Interconnection Customer's device for the production and/or storage for later injection of electricity identified in the Interconnection Request, but shall not include the Interconnection Customer's Interconnection Facilities.

**Generating Facility Capacity** shall mean the net capacity of the Generating Facility and the aggregate net capacity of the Generating Facility where it includes multiple energy production devices.

**Good Utility Practice** shall mean any of the practices, methods and acts engaged in or approved by a significant portion of the electric industry during the relevant time period, or any of the practices, methods and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. Good Utility Practice is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather to be acceptable practices, methods, or acts generally accepted in the region.

**Governmental Authority** shall mean any federal, state, local or other governmental regulatory or administrative agency, court, commission, department, board, or other governmental subdivision, legislature, rulemaking board, tribunal, or other governmental authority having jurisdiction over the Parties, their respective facilities, or the respective services they provide, and exercising or entitled to exercise any administrative, executive, police, or taxing authority or power; provided, however, that such term does not include Interconnection Customer, Transmission Provider, or any Affiliate thereof.

**Hazardous Substances** shall mean any chemicals, materials or substances defined as or included in the definition of "hazardous substances," "hazardous wastes," "hazardous materials," "hazardous constituents," "restricted hazardous materials," "extremely hazardous substances," "toxic substances," "radioactive substances," "contaminants," "pollutants," "toxic pollutants" or words of similar meaning and regulatory effect under any applicable Environmental Law, or any other chemical, material or substance, exposure to which is prohibited, limited or regulated by any applicable Environmental Law.

**Informational Interconnection Study** shall mean an analysis based on assumptions specified by Interconnection Customer in the Informational Interconnection Study Agreement.

**Informational Interconnection Study Agreement** shall mean the form of agreement contained in Appendix 7 of the Revised LGIP for conducting the Informational Interconnection Study.

**Initial Synchronization Date** shall mean the date upon which the Generating Facility is initially synchronized and upon which Trial Operation begins.

**In-Service Date** shall mean the date upon which the Interconnection Customer reasonably expects it will be ready to begin use of the Transmission Provider's Interconnection Facilities to obtain back feed power.

**Interconnection Customer** shall mean any entity, including the Transmission Provider, Transmission Owner or any of the Affiliates or subsidiaries of either, that proposes to interconnect its Generating Facility with the Transmission Provider's Transmission System.

**Interconnection Customer's Interconnection Facilities** shall mean all facilities and equipment, as identified in Appendix A of the Standard Large Generator Interconnection

Agreement, that are located between the Generating Facility and the Point of Change of Ownership, including any modification, addition, or upgrades to such facilities and equipment necessary to physically and electrically interconnect the Generating Facility to the Transmission Provider's Transmission System. Interconnection Customer's Interconnection Facilities are sole use facilities (e.g. for generator interconnection).

**Interconnection Facilities** shall mean the Transmission Provider's Interconnection Facilities and the Interconnection Customer's Interconnection Facilities. Collectively, Interconnection Facilities include all facilities and equipment between the Generating Facility and the Point of Interconnection, including any modification, additions or upgrades that are necessary to physically and electrically interconnect the Generating Facility to the Transmission Provider's Transmission System. Interconnection Facilities are sole use facilities (e.g. for generator interconnection) and shall not include Distribution Upgrades, Stand Alone Network Upgrades or Network Upgrades. Interconnection Facilities may be shared by more than one Generating Facility in a Cluster.

**Interconnection Facilities Study** shall mean a study conducted by the Transmission Provider or a third party consultant for the Interconnection Customer to determine a list of facilities (including Transmission Provider's Interconnection Facilities and Network Upgrades as identified in the Definitive Interconnection System Impact Study), the cost of those facilities, and the time required to interconnect the Generating Facility with the Transmission Provider's Transmission System. The scope of the study is defined in Section 8 of the Revised LGIP.

**Interconnection Facilities Study Agreement** shall mean the form of agreement contained in Appendix 3 of the Revised LGIP for conducting the Interconnection Facilities Study.

**Interconnection Request** shall mean an Interconnection Customer's request, in the form of Appendix 1 to the Revised LGIP, in accordance with the Tariff, to interconnect a new Generating Facility, or to increase the capacity of, or make a Material Modification to the operating characteristics of, an existing Generating Facility that is interconnected with the Transmission Provider's Transmission System.

**Interconnection Service** shall mean the service provided by the Transmission Provider associated with interconnecting the Interconnection Customer's Generating Facility to the Transmission Provider's Transmission System and enabling it to receive electric energy and capacity from the Generating Facility at the Point of Interconnection, pursuant to the terms of the Standard Large Generator Interconnection Agreement and, if applicable, the Transmission Provider's Tariff.

**Interconnection Study** shall mean any of the following studies: the Informational Interconnection Study, the Definitive Interconnection System Impact Study, and the Interconnection Facilities Study described in the Standard Large Generator Interconnection Procedures or Revised LGIP

**Interconnection Study Agreement** shall mean any of the following agreements: the Informational Interconnection Study Agreement, the Definitive Interconnection System Impact Study Agreement, or the Interconnection Facilities Study Agreement described in the Standard Large Generator Interconnection Procedures or Revised LGIP.



**IRS** shall mean the Internal Revenue Service.

**Joint Operating Committee** shall be a group made up of representatives from Interconnection Customers and the Transmission Provider to coordinate operating and technical considerations of Interconnection Service.

**Large Generating Facility** shall mean a Generating Facility having a Generating Facility Capacity of more than 20 MW.

**LGIA Milestone** shall mean milestones provided in Appendix B of this LGIA

**Loss** shall mean any and all losses relating to injury to or death of any person or damage to property, demand, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties, arising out of or resulting from the other Party's performance, or non-performance of its obligations under the Standard Large Generator Interconnection Agreement on behalf of the indemnifying Party, except in cases of gross negligence or intentional wrongdoing by the indemnifying Party.

**Material Modification** shall mean those modifications that have a material impact on the cost or timing of any Interconnection Request with a later or equal Queue Position.

**Metering Equipment** shall mean all metering equipment installed or to be installed at the Generating Facility pursuant to the Standard Large Generator Interconnection Agreement at the metering points, including but not limited to instrument transformers, MWh-meters, data acquisition equipment, transducers, remote terminal unit, communications equipment, phone lines, and fiber optics.

**NERC** shall mean the North American Electric Reliability Council or its successor organization.

**Network Resource** shall mean any designated generating resource owned, purchased, or leased by a Network Customer under the Network Integration Transmission Service Tariff. Network Resources do not include any resource, or any portion thereof, that is committed for sale to third parties or otherwise cannot be called upon to meet the Network Customer's Network Load on a non-interruptible basis.

**Network Resource Interconnection Service** shall mean an Interconnection Service that allows the Interconnection Customer to integrate its Large Generating Facility with the Transmission Provider's Transmission System (1) in a manner comparable to that in which the Transmission Provider integrates its generating facilities to serve native load customers; or (2) in an RTO or ISO with market based congestion management, in the same manner as Network Resources. Network Resource Interconnection Service in and of itself does not convey transmission service.

**Network Upgrades** shall mean the additions, modifications, and upgrades to the Transmission Provider's Transmission System required at or beyond the point at which the Interconnection Facilities connect to the Transmission Provider's Transmission System to accommodate the

interconnection of the Large Generating Facility to the Transmission Provider's Transmission System.

**Notice of Dispute** shall mean a written notice of a dispute or claim that arises out of or in connection with the Standard Large Generator Interconnection Agreement or its performance.

**OASIS** shall mean the Transmission Provider's Open Access Same-Time Information System

**Party or Parties** shall mean Transmission Provider, Transmission Owner, Interconnection Customer or any combination of the above.

**Phase ("Phase 1, Phase 2, Phase 3, or Phase 4")** shall mean a distinct part of the Definitive Study Process as described in Section 7.

**Point of Change of Ownership** shall mean the point, as set forth in Appendix A to the Standard Large Generator Interconnection Agreement, where the Interconnection Customer's Interconnection Facilities connect to the Transmission Provider's Interconnection Facilities.

**Point of Interconnection** shall mean the point, as set forth in Appendix A to the Standard Large Generator Interconnection Agreement, where the Interconnection Facilities connect to the Transmission Provider's Transmission System.

**Provisional Interconnection Service** shall mean interconnection service provided by Transmission Provider associated with interconnecting the Interconnection Customer's Generating Facility to Transmission Provider's Transmission System and enabling that Transmission System to receive electric energy and capacity from the Generating Facility at the Point of Interconnection, pursuant to the terms of the Provisional Large Generator Interconnection Agreement and, if applicable, the Tariff.

**Provisional Large Generator Interconnection Agreement** shall mean the interconnection agreement for Provisional Interconnection Service established between Transmission Provider and/or the Transmission Owner and the Interconnection Customer. This agreement shall take the form of the Large Generator Interconnection Agreement, modified for provisional purposes. Provisional Large Generator Interconnection Agreements are not eligible for suspension.

**Queue** shall mean a queue for valid Interconnection Requests for the Definitive Interconnection Study Process.

**Queue Position** shall mean the order of a valid Interconnection Request, relative to all other pending valid Interconnection Requests, in the Definitive Interconnection Study Process. The Queue Position is established based upon the date and time Interconnection Customer satisfies all of the requirements of Section 7.2 of the Revised LGIP to enter the Definitive Interconnection Study Process.

**Readiness Milestone(s)** shall have the meaning set forth in Section 7.7 of the Revised LGIP.

**Reasonable Efforts** shall mean, with respect to an action required to be attempted or taken by a Party under the Standard Large Generator Interconnection Agreement, efforts that are timely



and consistent with Good Utility Practice and are otherwise substantially equivalent to those a Party would use to protect its own interests.

**Revised LGIP** shall mean the Large Generator Interconnection Process as described in this Attachment N.

**Resource Plan** shall mean any process authorized or required by Applicable Laws and Regulations for, *inter alia*, the selection of Generating Facilities interconnected to the Transmission System of Transmission Provider

**Resource Planning Entity** shall mean any entity subject to or conducting a Resource Solicitation Process.

**Resource Solicitation Cluster** shall mean a Cluster Study associated with a Resource Planning Process.

**Resource Solicitation Process** shall mean any process authorized or required by Applicable Laws and Regulations for the acquisition of Network Resources by an entity interconnected to the Transmission System of Transmission Provider.

**Scoping Meeting** shall mean the meeting between representatives of the Interconnection Customer and Transmission Provider conducted for the purpose of discussing the proposed Interconnection Request, alternative interconnection options, to exchange information including any transmission data and earlier study evaluations that would be reasonably expected to affect such interconnection options, to analyze such information, and to determine the potential feasible Points of Interconnection.

**Site Control** shall mean the exclusive land right to develop, construct, operate, and maintain the Generating Facility over the term of expected operation of the Generating Facility. Site Control shall include the right to develop, construct, operate, and maintain Interconnection Customer's Interconnection Facilities. Site Control may be demonstrated by documentation establishing: (1) ownership of, a leasehold interest in, or a right to develop a site of sufficient size to construct and operate the Generating Facility and associated Interconnection Customer's Interconnection Facilities; (2) an option to purchase or acquire a leasehold interest in a site of sufficient size to construct and operate the Generating Facility and associated Interconnection Facilities; or (3) any other documentation that clearly demonstrates the right of the Interconnection Customer to exclusively occupy a site of sufficient size to construct and operate the Generating Facility. Site Control for any co-located project is demonstrated by a contract or other agreement demonstrating shared land use for all co-located projects that meet the aforementioned provisions of this Site Control definition.

**Small Generating Facility** shall mean a Generating Facility that has a Generating Facility Capacity of no more than 20 MW.

**Stand Alone Network Upgrades** shall mean Network Upgrades that are not a part of an Affected System that an Interconnection Customer may construct without affecting day-to-day operations of the Transmission System during their construction. Both the Transmission Provider and the Interconnection Customer must agree as to what constitutes Stand Alone

Network Upgrades and identify them in Appendix A to the Standard Large Generator Interconnection Agreement. If the Transmission Provider and Interconnection Customer disagree about whether a particular Network Upgrade is a Stand Alone Network Upgrade, the Transmission Provider must provide the Interconnection Customer a written technical explanation outlining why the Transmission Provider does not consider the Network Upgrade to be a Stand Alone Network Upgrade within 15 days of its determination.

**Standard Large Generator Interconnection Agreement (LGIA)** shall mean the form of interconnection agreement applicable to an Interconnection Request pertaining to a Large Generating Facility that is included in the Transmission Provider's Tariff.

**Standard Large Generator Interconnection Procedures (LGIP)** shall mean the interconnection procedures applicable to an Interconnection Request pertaining to a Large Generating Facility that are included in the Transmission Provider's Tariff.

**Surplus Interconnection Service** shall mean any unneeded portion of Interconnection Service established in a Large Generator Interconnection Agreement, such that if Surplus Interconnection Service is utilized the total amount of Interconnection Service at the Point of Interconnection would remain the same.

**System Protection Facilities** shall mean the equipment, including necessary protection signal communications equipment, required to protect (1) the Transmission Provider's Transmission System from faults or other electrical disturbances occurring at the Generating Facility and (2) the Generating Facility from faults or other electrical system disturbances occurring on the Transmission Provider's Transmission System or on other delivery systems or other generating systems to which the Transmission Provider's Transmission System is directly connected.

**Tariff** shall mean the Transmission Provider's Tariff through which open access transmission service and Interconnection Service are offered, as filed with FERC, and as amended or supplemented from time to time, or any successor tariff.

**Transmission Owner** shall mean an entity that owns, leases or otherwise possesses an interest in the portion of the Transmission System at the Point of Interconnection and may be a Party to the Standard Large Generator Interconnection Agreement to the extent necessary.

**Transmission Provider** shall mean the public utility (or its designated agent) that owns, controls, or operates transmission or distribution facilities used for the transmission of electricity in interstate commerce and provides transmission service under the Tariff. The term Transmission Provider should be read to include the Transmission Owner when the Transmission Owner is separate from the Transmission Provider.

**Transmission Provider's Interconnection Facilities** shall mean all facilities and equipment owned, controlled or operated by the Transmission Provider from the Point of Change of Ownership to the Point of Interconnection as identified in Appendix A to the Standard Large Generator Interconnection Agreement, including any modifications, additions or upgrades to such facilities and equipment. Transmission Provider's Interconnection Facilities are sole use facilities (e.g. for generator interconnection) and shall not include Distribution Upgrades, Stand

Alone Network Upgrades or Network Upgrades. Transmission Provider's Interconnection Facilities may be shared by more than one Generating Facility in a given Cluster Study.

**Transmission System** shall mean the facilities owned, controlled or operated by the Transmission Provider or Transmission Owner that are used to provide transmission service under the Tariff.

**Trial Operation** shall mean the period during which Interconnection Customer is engaged in on-site test operations and commissioning of the Generating Facility prior to Commercial Operation.

**Variable Energy Resource** shall mean a device for the production of electricity that is characterized by an energy source that: (1) is renewable; (2) cannot be stored by the facility owner or operator; and (3) has variability that is beyond the control of the facility owner or operator.

**Withdrawal Penalty** shall have the meaning set forth in Section 3.7.1 of the Revised LGIP.

## **Article 2. Effective Date, Term, and Termination**

### **2.1 Effective Date.**

This LGIA shall become effective upon execution by the Parties subject to acceptance by FERC (if applicable), or if filed unexecuted, upon the date specified by FERC. Transmission Provider shall promptly file this LGIA with FERC upon execution in accordance with Article 3.1, if required.

### **2.2 Term of Agreement.**

Subject to the provisions of Article 2.3, this LGIA shall remain in effect for a period of ten (10) years from the Effective Date or such other longer period as Interconnection Customer may request (Term to be specified in individual agreements) and shall be automatically renewed for each successive one-year period thereafter.

### **2.3 Termination Procedures.**

#### **2.3.1 Written Notice.**

This LGIA may be terminated by Interconnection Customer after giving Transmission Provider ninety (90) Calendar Days advance written notice, or by Transmission Provider notifying FERC after the Generating Facility permanently ceases Commercial Operation. This LGIA shall be terminated by Transmission Provider if the Generating Facility or a portion of the Generating Facility fails to achieve Commercial Operation by the Commercial Operation Date established in accordance with Section 4.4.5 of the Revised LGIP, including any extension provided thereunder, or, having previously achieved Commercial Operation, has ceased Commercial Operation for three (3) consecutive years, beginning with the last date of Commercial Operation for the Generating Facility, after giving Interconnection Customer ninety (90) Calendar Days advance written notice. When only a portion of the Generating Facility fails to achieve Commercial Operation by the Commercial Operation

Date established in accordance with Section 4.4.5 of the Revised LGIP, including any extension provided thereunder, Transmission Provider shall terminate only that portion of the LGIA. Notwithstanding the foregoing, in the limited circumstance that the Interconnection Request is served by a Contingent Facility with an in-service date that is later than the Commercial Operation Date permitted under Section 4.4.5 of the Revised LGIP, Transmission Provider shall terminate this LGIA only for failure to achieve Commercial Operation by ninety (90) Calendar Days after that later in-service date of the Contingent Facility. The Generating Facility will not be deemed to have ceased Commercial Operation for purposes of this Article 2.3.1 if Interconnection Customer can document that it has taken other significant steps to maintain or restore operational readiness of the Generating Facility for the purpose of returning the Generating Facility to Commercial Operation as soon as possible.

**2.3.2 Default.**

Either Party may terminate this LGIA in accordance with Article 17.

**2.3.3** Notwithstanding Articles 2.3.1 and 2.3.2, no termination shall become effective until the Parties have complied with all Applicable Laws and Regulations applicable to such termination, including the filing with FERC of a notice of termination of this LGIA, which notice has been accepted for filing by FERC.

**2.4 Termination Costs.**

If a Party elects to terminate this Agreement pursuant to Article 2.3 above, each Party shall pay all costs incurred (including any cancellation costs relating to orders or contracts for Interconnection Facilities and equipment) or charges assessed by the other Party, as of the date of the other Party's receipt of such notice of termination, that are the responsibility of the Terminating Party under this LGIA. In the event of termination by a Party, the Parties shall use commercially Reasonable Efforts to mitigate the costs, damages and charges arising as a consequence of termination. Upon termination of this LGIA, unless otherwise ordered or approved by FERC:

**2.4.1** With respect to any portion of Transmission Provider's Interconnection Facilities that have not yet been constructed or installed, Transmission Provider shall to the extent possible and with Interconnection Customer's authorization cancel any pending orders of, or return, any materials or equipment for, or contracts for construction of, such facilities; provided that in the event Interconnection Customer elects not to authorize such cancellation, Interconnection Customer shall assume all payment obligations with respect to such materials, equipment, and contracts, and Transmission Provider shall deliver such material and equipment, and, if necessary, assign such contracts, to Interconnection Customer as soon as practicable, at Interconnection Customer's expense. To the extent that Interconnection Customer has already paid Transmission Provider for any or all such costs of materials or equipment not taken by Interconnection Customer, Transmission Provider shall promptly refund such amounts to Interconnection Customer,

less any costs, including penalties incurred by Transmission Provider to cancel any pending orders of or return such materials, equipment, or contracts.

If an Interconnection Customer terminates this LGIA, it shall be responsible for all costs incurred in association with that Interconnection Customer's interconnection, including any cancellation costs relating to orders or contracts for Interconnection Facilities and equipment, and other expenses including any Network Upgrades for which Transmission Provider has incurred expenses and has not been reimbursed by Interconnection Customer.

- 2.4.2** Transmission Provider may, at its option, retain any portion of such materials, equipment, or facilities that Interconnection Customer chooses not to accept delivery of, in which case Transmission Provider shall be responsible for all costs associated with procuring such materials, equipment, or facilities.
- 2.4.3** With respect to any portion of the Interconnection Facilities, and any other facilities already installed or constructed pursuant to the terms of this LGIA, Interconnection Customer shall be responsible for all costs associated with the removal, relocation or other disposition or retirement of such materials, equipment, or facilities.
- 2.4.4** Transmission Provider shall refund the security provided under Section 10.3 of the Revised LGIP, including any accumulated interest, if applicable. Notwithstanding the foregoing, prior to remitting such security, plus accumulated interest, Transmission Provider shall offset against such security, and accumulated interest, any unpaid costs or penalties arising out of this Agreement or the Revised LGIP. Monies due the Interconnection Customer shall be remitted within 90 days of termination.

## **2.5 Disconnection.**

Upon termination of this LGIA, the Parties will take all appropriate steps to disconnect the Large Generating Facility from the Transmission System. All costs required to effectuate such disconnection shall be borne by the terminating Party, unless such termination resulted from the non-terminating Party's Default of this LGIA or such non-terminating Party otherwise is responsible for these costs under this LGIA.

## **2.6 Survival.**

This LGIA shall continue in effect after termination to the extent necessary to provide for final billings and payments and for costs incurred hereunder, including billings and payments pursuant to this LGIA; to permit the determination and enforcement of liability and indemnification obligations arising from acts or events that occurred while this LGIA was in effect; and to permit each Party to have access to the lands of the other Party pursuant to this LGIA or other applicable agreements, to disconnect, remove or salvage its own facilities and equipment

## **Article 3. Regulatory Filings**

### **3.1 Filing.**

Transmission Provider shall file this LGIA (and any amendment hereto) with the appropriate Governmental Authority, if required. Interconnection Customer may request that any information so provided be subject to the confidentiality provisions of Article 22. If Interconnection Customer has executed this LGIA, or any amendment thereto, Interconnection Customer shall reasonably cooperate with Transmission Provider with respect to such filing and to provide any information reasonably requested by Transmission Provider needed to comply with applicable regulatory requirements.

## **Article 4. Scope of Service**

### **4.1 Interconnection Product Options.**

Interconnection Customer has selected the following (checked) type of Interconnection Service:

#### **4.1.1 Energy Resource Interconnection Service.**

##### **4.1.1.1 The Product.**

Energy Resource Interconnection Service allows Interconnection Customer to connect the Large Generating Facility to the Transmission System and be eligible to deliver the Large Generating Facility's output using the existing firm or non-firm capacity of the Transmission System on an "as available" basis. To the extent Interconnection Customer wants to receive Energy Resource Interconnection Service, Transmission Provider shall construct facilities identified in Attachment A.

##### **4.1.1.2 Transmission Delivery Service Implications.**

Under Energy Resource Interconnection Service, Interconnection Customer will be eligible to inject power from the Large Generating Facility into and deliver power across the interconnecting Transmission Provider's Transmission System on an "as available" basis up to the amount of MWs identified in the applicable stability and steady state studies to the extent the upgrades initially required to qualify for Energy Resource Interconnection Service have been constructed. Where eligible to do so (e.g., PJM, ISO-NE, NYISO), Interconnection Customer may place a bid to sell into the market up to the maximum identified Large Generating Facility output, subject to any conditions specified in the interconnection service approval, and the Large Generating Facility will be dispatched to the extent Interconnection Customer's bid clears. In all other instances, no transmission delivery service from the Large Generating Facility is assured, but Interconnection Customer may obtain Point-to-Point Transmission Service, Network Integration Transmission Service, or be used for secondary network transmission service, pursuant to Transmission Provider's Tariff, up to the maximum output



identified in the stability and steady state studies. In those instances, in order for Interconnection Customer to obtain the right to deliver or inject energy beyond the Large Generating Facility Point of Interconnection or to improve its ability to do so, transmission delivery service must be obtained pursuant to the provisions of Transmission Provider's Tariff. The Interconnection Customer's ability to inject its Large Generating Facility output beyond the Point of Interconnection, therefore, will depend on the existing capacity of Transmission Provider's Transmission System at such time as a transmission service request is made that would accommodate such delivery. The provision of firm Point-to-Point Transmission Service or Network Integration Transmission Service may require the construction of additional Network Upgrades.

#### **4.1.2 Network Resource Interconnection Service.**

##### **4.1.2.1 The Product.**

Transmission Provider must conduct the necessary studies and construct the Network Upgrades needed to integrate the Large Generating Facility (1) in a manner comparable to that in which Transmission Provider integrates its generating facilities to serve native load customers; or (2) in an ISO or RTO with market based congestion management, in the same manner as all Network Resources. To the extent Interconnection Customer wants to receive Network Resource Interconnection Service, Transmission Provider shall construct the facilities identified in Attachment A to this LGIA.

##### **4.1.2.2 Transmission Delivery Service Implications.**

Network Resource Interconnection Service allows Interconnection Customer's Large Generating Facility to be designated by any Network Customer under the Tariff on Transmission Provider's Transmission System as a Network Resource, up to the Large Generating Facility's full output, on the same basis as existing Network Resources interconnected to Transmission Provider's Transmission System, and to be studied as a Network Resource on the assumption that such a designation will occur. Although Network Resource Interconnection Service does not convey a reservation of transmission service, any Network Customer under the Tariff can utilize its network service under the Tariff to obtain delivery of energy from the interconnected Interconnection Customer's Large Generating Facility in the same manner as it accesses Network Resources. A Large Generating Facility receiving Network Resource Interconnection Service may also be used to provide Ancillary Services after technical studies and/or periodic analyses are performed with respect to the Large Generating Facility's ability to provide any applicable Ancillary

Services, provided that such studies and analyses have been or would be required in connection with the provision of such Ancillary Services by any existing Network Resource. However, if an Interconnection Customer's Large Generating Facility has not been designated as a Network Resource by any load, it cannot be required to provide Ancillary Services except to the extent such requirements extend to all generating facilities that are similarly situated. The provision of Network Integration Transmission Service or firm Point-to-Point Transmission Service may require additional studies and the construction of additional upgrades. Because such studies and upgrades would be associated with a request for delivery service under the Tariff, cost responsibility for the studies and upgrades would be in accordance with FERC's policy for pricing transmission delivery services.

Network Resource Interconnection Service does not necessarily provide Interconnection Customer with the capability to physically deliver the output of its Large Generating Facility to any particular load on Transmission Provider's Transmission System without incurring congestion costs. In the event of transmission constraints on Transmission Provider's Transmission System, Interconnection Customer's Large Generating Facility shall be subject to the applicable congestion management procedures in Transmission Provider's Transmission System in the same manner as Network Resources.

There is no requirement either at the time of study or interconnection, or at any point in the future, that Interconnection Customer's Large Generating Facility be designated as a Network Resource by a Network Service Customer under the Tariff or that Interconnection Customer identify a specific buyer (or sink). To the extent a Network Customer does designate the Large Generating Facility as a Network Resource, it must do so pursuant to Transmission Provider's Tariff.

Once an Interconnection Customer satisfies the requirements for obtaining Network Resource Interconnection Service, any future transmission service request for delivery from the Large Generating Facility within Transmission Provider's Transmission System of any amount of capacity and/or energy, up to the amount initially studied, will not require that any additional studies be performed or that any further upgrades associated with such Large Generating Facility be undertaken, regardless of whether or not such Large Generating Facility is ever designated by a Network Customer as a Network Resource and regardless of changes in ownership of the Large Generating Facility. However, the reduction or elimination of congestion or redispatch costs may



require additional studies and the construction of additional upgrades.

To the extent Interconnection Customer enters into an arrangement for long term transmission service for deliveries from the Large Generating Facility outside Transmission Provider's Transmission System, such request may require additional studies and upgrades in order for Transmission Provider to grant such request.

**4.2 Provision of Service.**

Transmission Provider shall provide Interconnection Service for the Large Generating Facility at the Point of Interconnection.

**4.3 Performance Standards.**

Each Party shall perform all of its obligations under this LGIA in accordance with Applicable Laws and Regulations, Applicable Reliability Standards, and Good Utility Practice, and to the extent a Party is required or prevented or limited in taking any action by such regulations and standards, such Party shall not be deemed to be in Breach of this LGIA for its compliance therewith. If such Party is a Transmission Provider or Transmission Owner, then that Party shall amend the LGIA and submit the amendment to FERC for approval.

**4.4 No Transmission Delivery Service.**

The execution of this LGIA does not constitute a request for, nor the provision of, any transmission delivery service under Transmission Provider's Tariff, and does not convey any right to deliver electricity to any specific customer or Point of Delivery.

**4.5 Interconnection Customer Provided Services.**

The services provided by Interconnection Customer under this LGIA are set forth in Article 9.6 and Article 13.5.1. Interconnection Customer shall be paid for such services in accordance with Article 11.6.

**Article 5. Interconnection Facilities Engineering, Procurement, and Construction**

**5.1 Options.**

Unless otherwise mutually agreed to between the Parties, Interconnection Customer shall select the In-Service Date, Initial Synchronization Date, and Commercial Operation Date; and either the Standard Option or Alternate Option set forth below for completion of Transmission Provider's Interconnection Facilities and Network Upgrades as set forth in Appendix A, Interconnection Facilities and Network Upgrades, and such dates and selected option shall be set forth in Appendix B, Milestones. At the same time, Interconnection Customer shall indicate whether it elects to exercise the Option to Build set forth in Article 5.1.3 below. If the dates designated by Interconnection Customer are not acceptable to Transmission Provider, Transmission Provider shall so notify Interconnection Customer within thirty (30) Calendar Days. Upon receipt of the notification that Interconnection Customer's designated dates are not acceptable to Transmission Provider, the Interconnection Customer shall notify Transmission Provider

within thirty (30) Calendar Days whether it elects to exercise the Option to Build if it has not already elected to exercise the Option to Build.

**5.1.1 Standard Option.**

Transmission Provider shall design, procure, and construct Transmission Provider's Interconnection Facilities and Network Upgrades, using Reasonable Efforts to complete Transmission Provider's Interconnection Facilities and Network Upgrades by the dates set forth in Appendix B, LGIA Milestones. Transmission Provider shall not be required to undertake any action which is inconsistent with its standard safety practices, its material and equipment specifications, its design criteria and construction procedures, its labor agreements, and Applicable Laws and Regulations. In the event Transmission Provider reasonably expects that it will not be able to complete Transmission Provider's Interconnection Facilities and Network Upgrades by the specified dates, Transmission Provider shall promptly provide written notice to Interconnection Customer and shall undertake Reasonable Efforts to meet the earliest dates thereafter.

**5.1.2 Alternate Option.**

If the dates designated by Interconnection Customer are acceptable to Transmission Provider, Transmission Provider shall so notify Interconnection Customer within thirty (30) Calendar Days, and shall assume responsibility for the design, procurement and construction of Transmission Provider's Interconnection Facilities by the designated dates.

If Transmission Provider subsequently fails to complete Transmission Provider's Interconnection Facilities by the In-Service Date, to the extent necessary to provide back feed power; or fails to complete Network Upgrades by the Initial Synchronization Date to the extent necessary to allow for Trial Operation at full power output, unless other arrangements are made by the Parties for such Trial Operation; or fails to complete the Network Upgrades by the Commercial Operation Date, as such dates are reflected in Appendix B, LGIA Milestones; Transmission Provider shall pay Interconnection Customer liquidated damages in accordance with Article 5.3, Liquidated Damages, provided, however, the dates designated by Interconnection Customer shall be extended day for day for each day that the applicable RTO or ISO refuses to grant clearances to install equipment.

**5.1.3 Option to Build.**

Interconnection Customer shall have the option to assume responsibility for the design, procurement and construction of Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades on the dates specified in Article 5.1.2. Transmission Provider and Interconnection Customer must agree as to what constitutes Stand Alone Network Upgrades and identify such Stand Alone Network Upgrades in Appendix A. Except for Stand Alone Network Upgrades, Interconnection Customer shall have no right to construct Network Upgrades under this option.

**5.1.4 Negotiated Option.**

If the dates designated by Interconnection Customer are not acceptable to Transmission Provider, the Parties shall in good faith attempt to negotiate terms and conditions (including revision of the specified dates and liquidated damages, the provision of incentives, or the procurement and construction of all facilities other than Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades if the Interconnection Customer elects to exercise the Option to Build under Article 5.1.3) If the Parties are unable to reach agreement on such terms and conditions, then, pursuant to Article 5.1.1 (Standard Option), Transmission Provider shall assume responsibility for the design, procurement and construction of all facilities other than Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades if the Interconnection Customer elects to exercise the Option to Build.

**5.2 General Conditions Applicable to Option to Build.**

If Interconnection Customer assumes responsibility for the design, procurement and construction of Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades,

- (1) Interconnection Customer shall engineer, procure equipment, and construct Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades (or portions thereof) using Good Utility Practice and using standards and specifications provided in advance by Transmission Provider;
- (2) Interconnection Customer's engineering, procurement and construction of Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades shall comply with all requirements of law to which Transmission Provider would be subject in the engineering, procurement or construction of Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades;
- (3) Transmission Provider shall review and approve the engineering design, equipment acceptance tests, and the construction of Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades;
- (4) Prior to commencement of construction, Interconnection Customer shall provide to Transmission Provider a schedule for construction of Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades, and shall promptly respond to requests for information from Transmission Provider;
- (5) At any time during construction, Transmission Provider shall have the right to gain unrestricted access to Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades and to conduct inspections of the same;

- (6) At any time during construction, should any phase of the engineering, equipment procurement, or construction of Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades not meet the standards and specifications provided by Transmission Provider, Interconnection Customer shall be obligated to remedy deficiencies in that portion of Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades;
- (7) Interconnection Customer shall indemnify Transmission Provider for claims arising from Interconnection Customer's construction of Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades under the terms and procedures applicable to Article 18.1 Indemnity;
- (8) Interconnection Customer shall transfer control of Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades to Transmission Provider;
- (9) Unless Parties otherwise agree, Interconnection Customer shall transfer ownership of Transmission Provider's Interconnection Facilities and Stand-Alone Network Upgrades to Transmission Provider;
- (10) Transmission Provider shall approve and accept for operation and maintenance Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades to the extent engineered, procured, and constructed in accordance with this Article 5.2; and
- (11) Interconnection Customer shall deliver to Transmission Provider "as-built" drawings, information, and any other documents that are reasonably required by Transmission Provider to assure that the Interconnection Facilities and Stand-Alone Network Upgrades are built to the standards and specifications required by Transmission Provider.
- (12) If Interconnection Customer exercises the Option to Build pursuant to Article 5.1.3, Interconnection Customer shall pay Transmission Provider the agreed upon amount of [\$ PLACEHOLDER] for Transmission Provider to execute the responsibilities enumerated to Transmission Provider under Article 5.2. Transmission Provider shall invoice Interconnection Customer for this total amount to be divided on a monthly basis pursuant to Article 12.

### **5.3 Liquidated Damages.**

The actual damages to Interconnection Customer, in the event Transmission Provider's Interconnection Facilities or Network Upgrades are not completed by the dates designated by Interconnection Customer and accepted by Transmission Provider

pursuant to subparagraphs 5.1.2 or 5.1.4, above, may include Interconnection Customer's fixed operation and maintenance costs and lost opportunity costs. Such actual damages are uncertain and impossible to determine at this time. Because of such uncertainty, any liquidated damages paid by Transmission Provider to Interconnection Customer in the event that Transmission Provider does not complete any portion of Transmission Provider's Interconnection Facilities or Network Upgrades by the applicable dates, shall be an amount equal to  $\frac{1}{2}$  of 1 percent per day of the actual cost of Transmission Provider's Interconnection Facilities and Network Upgrades, in the aggregate, for which Transmission Provider has assumed responsibility to design, procure and construct.

However, in no event shall the total liquidated damages exceed 20 percent of the actual cost of Transmission Provider's Interconnection Facilities and Network Upgrades for which Transmission Provider has assumed responsibility to design, procure, and construct. The foregoing payments will be made by Transmission Provider to Interconnection Customer as just compensation for the damages caused to Interconnection Customer, which actual damages are uncertain and impossible to determine at this time, and as reasonable liquidated damages, but not as a penalty or a method to secure performance of this LGIA. Liquidated damages, when the Parties agree to them, are the exclusive remedy for the Transmission Provider's failure to meet its schedule.

No liquidated damages shall be paid to Interconnection Customer if: (1) Interconnection Customer is not ready to commence use of Transmission Provider's Interconnection Facilities or Network Upgrades to take the delivery of power for the Large Generating Facility's Trial Operation or to export power from the Large Generating Facility on the specified dates, unless Interconnection Customer would have been able to commence use of Transmission Provider's Interconnection Facilities or Network Upgrades to take the delivery of power for Large Generating Facility's Trial Operation or to export power from the Large Generating Facility, but for Transmission Provider's delay; (2) Transmission Provider's failure to meet the specified dates is the result of the action or inaction of Interconnection Customer or any other Interconnection Customer who has entered into an LGIA with Transmission Provider or any cause beyond Transmission Provider's reasonable control or reasonable ability to cure; (3) the Interconnection Customer has assumed responsibility for the design, procurement and construction of Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades; or (4) the Parties have otherwise agreed.

#### **5.4 Power System Stabilizers.**

The Interconnection Customer shall procure, install, maintain and operate Power System Stabilizers in accordance with the guidelines and procedures established by the Applicable Reliability Council. Transmission Provider reserves the right to reasonably establish minimum acceptable settings for any installed Power System Stabilizers, subject to the design and operating limitations of the Large Generating Facility. If the Large Generating Facility's Power System Stabilizers are removed from service or not capable of automatic operation, Interconnection Customer shall immediately notify Transmission Provider's system operator, or its designated representative. The requirements of this paragraph shall not apply to wind generators.

## **5.5 Equipment Procurement.**

If responsibility for construction of Transmission Provider's Interconnection Facilities or Network Upgrades is to be borne by Transmission Provider, then Transmission Provider shall commence design of Transmission Provider's Interconnection Facilities or Network Upgrades and procure necessary equipment as soon as practicable after all of the following conditions are satisfied, unless the Parties otherwise agree in writing:

- 5.5.1** Transmission Provider has completed the Interconnection Facilities Study pursuant to the Interconnection Facilities Study Agreement;
- 5.5.2** Transmission Provider has received written authorization to proceed with design and procurement from Interconnection Customer by the date specified in Appendix B, LGIA Milestones; and
- 5.5.3** Interconnection Customer has provided security to Transmission Provider in accordance with Article 11.5 by the dates specified in Appendix B, LGIA Milestones.

## **5.6 Construction Commencement.**

Transmission Provider shall commence construction of Transmission Provider's Interconnection Facilities and Network Upgrades for which it is responsible as soon as practicable after the following additional conditions are satisfied:

- 5.6.1** Approval of the appropriate Governmental Authority has been obtained for any facilities requiring regulatory approval;
- 5.6.2** Necessary real property rights and rights-of-way have been obtained, to the extent required for the construction of a discrete aspect of Transmission Provider's Interconnection Facilities and Network Upgrades;
- 5.6.3** Transmission Provider has received written authorization to proceed with construction from Interconnection Customer by the date specified in Appendix B, LGIA Milestones; and
- 5.6.4** Interconnection Customer has provided security to Transmission Provider in accordance with Article 11.5 by the dates specified in Appendix B, LGIA Milestones.

## **5.7 Work Progress.**

The Parties will keep each other advised periodically as to the progress of their respective design, procurement and construction efforts. Either Party may, at any time, request a progress report from the other Party. If, at any time, Interconnection Customer determines that the completion of Transmission Provider's Interconnection Facilities will not be required until after the specified In-Service Date, Interconnection Customer will provide written notice to Transmission Provider of such later date upon which the completion of Transmission Provider's Interconnection Facilities will be required.



## **5.8 Information Exchange.**

As soon as reasonably practicable after the Effective Date, the Parties shall exchange information regarding the design and compatibility of the Parties' Interconnection Facilities and compatibility of the Interconnection Facilities with Transmission Provider's Transmission System, and shall work diligently and in good faith to make any necessary design changes.

## **5.9 Other Interconnection Options**

### **5.9.1 Limited Operation.**

If any of Transmission Provider's Interconnection Facilities or Network Upgrades are not reasonably expected to be completed prior to the Commercial Operation Date of the Large Generating Facility, Transmission Provider shall, upon the request and at the expense of Interconnection Customer, perform operating studies on a timely basis to determine the extent to which the Large Generating Facility and Interconnection Customer's Interconnection Facilities may operate prior to the completion of Transmission Provider's Interconnection Facilities or Network Upgrades consistent with Applicable Laws and Regulations, Applicable Reliability Standards, Good Utility Practice, and this LGIA. Transmission Provider shall permit Interconnection Customer to operate the Large Generating Facility and Interconnection Customer's Interconnection Facilities in accordance with the results of such studies.

### **5.9.2 Provisional Interconnection Service.**

Upon the request of Interconnection Customer, and prior to completion of requisite Interconnection Facilities, Network Upgrades, Distribution Upgrades, or System Protection Facilities Transmission Provider may execute a Provisional Large Generator Interconnection Agreement or Interconnection Customer may request the filing of an unexecuted Provisional Large Generator Interconnection Agreement with the Interconnection Customer for limited Interconnection Service at the discretion of Transmission Provider based upon an evaluation that will consider the results of available studies. Transmission Provider shall determine, through available studies or additional studies as necessary, whether stability, short circuit, thermal, and/or voltage issues would arise if Interconnection Customer interconnects without modifications to the Generating Facility or Transmission System. Transmission Provider shall determine whether any Interconnection Facilities, Network Upgrades, Distribution Upgrades, or System Protection Facilities that are necessary to meet the requirements of NERC, or any applicable Regional Entity for the interconnection of a new, modified and/or expanded Generating Facility are in place prior to the commencement of Interconnection Service from the Generating Facility. Where available studies indicate that such, Interconnection Facilities, Network Upgrades, Distribution Upgrades, and/or System Protection Facilities that are required for the interconnection of a new, modified and/or expanded Generating Facility are not currently in place, Transmission Provider will perform a study, at the Interconnection Customer's expense, to confirm the facilities that are

required for Provisional Interconnection Service. The maximum permissible output of the Generating Facility in the Provisional Large Generator Interconnection Agreement shall be reviewed quarterly and updated if there are changes to system conditions compared to the system conditions previously used to determine of the maximum permissible output. Any necessary study is conducted at the Interconnection Customer's expense. Interconnection Customer assumes all risk and liabilities with respect to changes between the Provisional Large Generator Interconnection Agreement and the Large Generator Interconnection Agreement, including changes in output limits and Interconnection Facilities, Network Upgrades, Distribution Upgrades, and/or System Protection Facilities cost responsibilities.

**5.10 Interconnection Customer's Interconnection Facilities ("ICIF").**

Interconnection Customer shall, at its expense, design, procure, construct, own and install the ICIF, as set forth in Appendix A, Interconnection Facilities, Network Upgrades and Distribution Upgrades.

**5.10.1 Interconnection Customer's Interconnection Facility Specifications.**

Interconnection Customer shall submit initial specifications for the ICIF, including System Protection Facilities, to Transmission Provider at least one-hundred eighty (180) Calendar Days prior to the Initial Synchronization Date; and final specifications for review and comment at least ninety (90) Calendar Days prior to the Initial Synchronization Date. Transmission Provider shall review such specifications to ensure that the ICIF are compatible with the technical specifications, operational control, and safety requirements of Transmission Provider and comment on such specifications within thirty (30) Calendar Days of Interconnection Customer's submission. All specifications provided hereunder shall be deemed confidential.

**5.10.2 Transmission Provider's Review.**

Transmission Provider's review of Interconnection Customer's final specifications shall not be construed as confirming, endorsing, or providing a warranty as to the design, fitness, safety, durability or reliability of the Large Generating Facility, or the ICIF. Interconnection Customer shall make such changes to the ICIF as may reasonably be required by Transmission Provider, in accordance with Good Utility Practice, to ensure that the ICIF are compatible with the technical specifications, operational control, and safety requirements of Transmission Provider.

**5.10.3 ICIF Construction.**

The ICIF shall be designed and constructed in accordance with Good Utility Practice. Within one-hundred twenty (120) Calendar Days after the Commercial Operation Date, unless the Parties agree on another mutually acceptable deadline, Interconnection Customer shall deliver to Transmission Provider "as-built" drawings, information and documents for the ICIF, such as: a one-line diagram, a site plan showing the Large Generating Facility and the ICIF, plan and elevation drawings showing the layout of the ICIF, a relay



functional diagram, relaying AC and DC schematic wiring diagrams and relay settings for all facilities associated with Interconnection Customer's step-up transformers, the facilities connecting the Large Generating Facility to the step-up transformers and the ICIF, and the impedances (determined by factory tests) for the associated step-up transformers and the Large Generating Facility. The Interconnection Customer shall provide Transmission Provider specifications for the excitation system, automatic voltage regulator, Large Generating Facility control and protection settings, transformer tap settings, and communications, if applicable.

**5.11 Transmission Provider's Interconnection Facilities Construction.**

Transmission Provider's Interconnection Facilities shall be designed and constructed in accordance with Good Utility Practice. Upon request, within one-hundred twenty (120) Calendar Days after the Commercial Operation Date, unless the Parties agree on another mutually acceptable deadline, Transmission Provider shall deliver to Interconnection Customer the following "as-built" drawings, information and documents for Transmission Provider's Interconnection Facilities [include appropriate drawings and relay diagrams]. Transmission Provider will obtain control of Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades upon completion of such facilities.

**5.12 Access Rights.**

Upon reasonable notice and supervision by a Party, and subject to any required or necessary regulatory approvals, a Party ("Granting Party") shall furnish at no cost to the other Party ("Access Party") any rights of use, licenses, rights of way and easements with respect to lands owned or controlled by the Granting Party, its agents (if allowed under the applicable agency agreement), or any Affiliate, that are necessary to enable the Access Party to obtain ingress and egress to construct, operate, maintain, repair, test (or witness testing), inspect, replace or remove facilities and equipment to: (i) interconnect the Large Generating Facility with the Transmission System; (ii) operate and maintain the Large Generating Facility, the Interconnection Facilities and the Transmission System; and (iii) disconnect or remove the Access Party's facilities and equipment upon termination of this LGIA. In exercising such licenses, rights of way and easements, the Access Party shall not unreasonably disrupt or interfere with normal operation of the Granting Party's business and shall adhere to the safety rules and procedures established in advance, as may be changed from time to time, by the Granting Party and provided to the Access Party.

**5.13 Lands of Other Property Owners.**

If any part of Transmission Provider or Transmission Owner's Interconnection Facilities and/or Network Upgrades is to be installed on property owned by persons other than Interconnection Customer or Transmission Provider or Transmission Owner, Transmission Provider or Transmission Owner shall at Interconnection Customer's expense use efforts, similar in nature and extent to those that it typically undertakes on its own behalf or on behalf of its Affiliates, including use of its eminent domain authority, and to the extent consistent with state law, to procure from such persons any rights of use, licenses, rights of way and easements that are necessary to construct, operate,

maintain, test, inspect, replace or remove Transmission Provider or Transmission Owner's Interconnection Facilities and/or Network Upgrades upon such property.

**5.14 Permits.**

Transmission Provider or Transmission Owner and Interconnection Customer shall cooperate with each other in good faith in obtaining all permits, licenses, and authorizations that are necessary to accomplish the interconnection in compliance with Applicable Laws and Regulations. With respect to this paragraph, Transmission Provider or Transmission Owner shall provide permitting assistance to Interconnection Customer comparable to that provided to Transmission Provider's own, or an Affiliate's generation.

**5.15 Early Construction of Base Case Facilities.**

Interconnection Customer may request Transmission Provider to construct, and Transmission Provider shall construct, using Reasonable Efforts to accommodate Interconnection Customer's In-Service Date, all or any portion of any Network Upgrades required for Interconnection Customer to be interconnected to the Transmission System which are included in the Base Case of the Facilities Study for Interconnection Customer, and which also are required to be constructed for another Interconnection Customer, but where such construction is not scheduled to be completed in time to achieve Interconnection Customer's In-Service Date.

**5.16 Suspension.**

Interconnection Customer reserves the right, upon written notice to Transmission Provider, to suspend at any time all work by Transmission Provider associated with the construction and installation of Transmission Provider's Interconnection Facilities and/or Network Upgrades required under this LGIA with the condition that Transmission System shall be left in a safe and reliable condition in accordance with Good Utility Practice and Transmission Provider's safety and reliability criteria. In such event, Interconnection Customer shall be responsible for all reasonable and necessary costs which Transmission Provider (i) has incurred pursuant to this LGIA prior to the suspension and (ii) incurs in suspending such work, including any costs incurred to perform such work as may be necessary to ensure the safety of persons and property and the integrity of the Transmission System during such suspension and, if applicable, any costs incurred in connection with the cancellation or suspension of material, equipment and labor contracts which Transmission Provider cannot reasonably avoid; provided, however, that prior to canceling or suspending any such material, equipment or labor contract, Transmission Provider shall obtain Interconnection Customer's authorization to do so.

Transmission Provider shall invoice Interconnection Customer for such costs pursuant to Article 12 and shall use due diligence to minimize its costs. In the event Interconnection Customer suspends work by Transmission Provider required under this LGIA pursuant to this Article 5.16, and has not requested Transmission Provider to recommence the work required under this LGIA on or before the expiration of three (3) years following commencement of such suspension, this LGIA shall be deemed terminated. The three-year period shall begin on the date the suspension is requested, or the date of the written notice to Transmission Provider, if no effective date is specified.

**5.16.1 Effect of Missed Interconnection Customer LGIA Milestones.**

If Interconnection Customer fails to provide notice of suspension pursuant to Article 5.16, and Interconnection Customer fails to fulfill or complete any Interconnection Customer LGIA Milestone provided in Appendix B (“LGIA Milestone”), this constitutes a Breach under this LGIA. Depending upon the consequences of the Breach and effectiveness of the cure pursuant to Article 17, Transmission Provider’s LGIA Milestones may be revised, following consultation with Interconnection Customer, consistent with Reasonable Efforts, and in consideration of all relevant circumstances. Parties shall employ Reasonable Efforts to maintain their remaining respective LGIA Milestones.

#### **5.16.2 Effect of Suspension; Parties Obligations.**

In the event that Interconnection Customer suspends work pursuant to this Article 5.16, the applicable construction duration, timelines and schedules set forth in Appendix B shall be suspended during the period of suspension. Should Interconnection Customer thereafter request that work be recommenced, Appendix A and Appendix B may be revised to account for construction sequencing and modified milestones. If the Commercial Operation Date is extended beyond three (3) cumulative years described in Section 4.4.5 of the Revised LGIP and Article 2.3.1 of this LGIA, such an extension may be considered a Material Modification and result in the termination of the LGIA under Article 2.3.1. Interconnection Customer is required to maintain Site Control while this LGIA is in effect, including during suspension.

### **5.17 Taxes**

#### **5.17.1 Interconnection Customer Payments Not Taxable.**

The Parties intend that all payments or property transfers made by Interconnection Customer to Transmission Provider for the installation of Transmission Provider’s Interconnection Facilities and the Network Upgrades shall be non-taxable, either as contributions to capital, or as an advance, in accordance with the Internal Revenue Code and any applicable state income tax laws and shall not be taxable as contributions in aid of construction or otherwise under the Internal Revenue Code and any applicable state income tax laws.

#### **5.17.2 Representations and Covenants.**

In accordance with IRS Notice 2001-82 and IRS Notice 88-129, Interconnection Customer represents and covenants that (i) ownership of the electricity generated at the Large Generating Facility will pass to another party prior to the transmission of the electricity on the Transmission System, (ii) for income tax purposes, the amount of any payments and the cost of any property transferred to Transmission Provider for Transmission Provider’s Interconnection Facilities will be capitalized by Interconnection Customer as an intangible asset and recovered using the straight-line method over a useful life of twenty (20) years, and (iii) any portion of Transmission Provider’s Interconnection Facilities that is a “dual-use intertie,” within the meaning of IRS Notice 88-129, is reasonably expected to carry only a de minimis amount of electricity in the direction of the Large Generating Facility. For this purpose, “de minimis amount” means no more

than percent of the total power flows in both directions, calculated in accordance with the "5 percent test" set forth in IRS Notice 88-129. This is not intended to be an exclusive list of the relevant conditions that must be met to conform to IRS requirements for non-taxable treatment.

At Transmission Provider's request, Interconnection Customer shall provide Transmission Provider with a report from an independent engineer confirming its representation in clause (iii), above. Transmission Provider represents and covenants that the cost of Transmission Provider's Interconnection Facilities paid for by Interconnection Customer will have no net effect on the base upon which rates are determined.

**5.17.3 Indemnification for the Cost Consequences of Current Tax Liability Imposed Upon the Transmission Provider.**

Notwithstanding Article 5.17.1, Interconnection Customer shall protect, indemnify and hold harmless Transmission Provider from the cost consequences of any current tax liability imposed against Transmission Provider as the result of payments or property transfers made by Interconnection Customer to Transmission Provider under this LGIA for Interconnection Facilities, as well as any interest and penalties, other than interest and penalties attributable to any delay caused by Transmission Provider.

Transmission Provider shall not include a gross-up for the cost consequences of any current tax liability in the amounts it charges Interconnection Customer under this LGIA unless (i) Transmission Provider has determined, in good faith, that the payments or property transfers made by Interconnection Customer to Transmission Provider should be reported as income subject to taxation or (ii) any Governmental Authority directs Transmission Provider to report payments or property as income subject to taxation; provided, however, that Transmission Provider may require Interconnection Customer to provide security for Interconnection Facilities, in a form reasonably acceptable to Transmission Provider (such as a parental guarantee or a letter of credit), in an amount equal to the cost consequences of any current tax liability under this Article 5.17. Interconnection Customer shall reimburse Transmission Provider for such costs on a fully grossed-up basis, in accordance with Article 5.17.4, within thirty (30) Calendar Days of receiving written notification from Transmission Provider of the amount due, including detail about how the amount was calculated.

The indemnification obligation shall terminate at the earlier of (1) the expiration of the ten-year testing period and the applicable statute of limitation, as it may be extended by Transmission Provider upon request of the IRS, to keep these years open for audit or adjustment, or (2) the occurrence of a subsequent taxable event and the payment of any related indemnification obligations as contemplated by this Article 5.17.

**5.17.4 Tax Gross-Up Amount.**

Interconnection Customer's liability for the cost consequences of any current tax liability under this Article 5.17 shall be calculated on a fully grossed-up basis.

Except as may otherwise be agreed to by the parties, this means that Interconnection Customer will pay Transmission Provider, in addition to the amount paid for the Interconnection Facilities and Network Upgrades, an amount equal to (1) the current taxes imposed on Transmission Provider ("Current Taxes") on the excess of (a) the gross income realized by Transmission Provider as a result of payments or property transfers made by Interconnection Customer to Transmission Provider under this LGIA (without regard to any payments under this Article 5.17) (the "Gross Income Amount") over (b) the present value of future tax deductions for depreciation that will be available as a result of such payments or property transfers (the "Present Value Depreciation Amount"), plus (2) an additional amount sufficient to permit Transmission Provider to receive and retain, after the payment of all Current Taxes, an amount equal to the net amount described in clause (1).

For this purpose, (i) Current Taxes shall be computed based on Transmission Provider's composite federal and state tax rates at the time the payments or property transfers are received and Transmission Provider will be treated as being subject to tax at the highest marginal rates in effect at that time (the "Current Tax Rate"), and (ii) the Present Value Depreciation Amount shall be computed by discounting Transmission Provider's anticipated tax depreciation deductions as a result of such payments or property transfers by Transmission Provider's current weighted average cost of capital. Thus, the formula for calculating Interconnection Customer's liability to Transmission Owner pursuant to this Article 5.17.4 can be expressed as follows:  $(\text{Current Tax Rate} \times (\text{Gross Income Amount} - \text{Present Value of Tax Depreciation})) / (1 - \text{Current Tax Rate})$ . Interconnection Customer's estimated tax liability in the event taxes are imposed shall be stated in Appendix A, Interconnection Facilities, Network Upgrades and Distribution Upgrades.

#### **5.17.5 Private Letter Ruling or Change or Clarification of Law.**

At Interconnection Customer's request and expense, Transmission Provider shall file with the IRS a request for a private letter ruling as to whether any property transferred or sums paid, or to be paid, by Interconnection Customer to Transmission Provider under this LGIA are subject to federal income taxation. Interconnection Customer will prepare the initial draft of the request for a private letter ruling, and will certify under penalties of perjury that all facts represented in such request are true and accurate to the best of Interconnection Customer's knowledge. Transmission Provider and Interconnection Customer shall cooperate in good faith with respect to the submission of such request. Transmission Provider shall keep Interconnection Customer fully informed of the status of such request for a private letter ruling and shall execute either a privacy act waiver or a limited power of attorney, in a form acceptable to the IRS that authorizes Interconnection Customer to participate in all discussions with the IRS regarding such request for a private letter ruling. Transmission Provider shall allow Interconnection Customer to attend all meetings with IRS officials about the request and shall permit Interconnection Customer to prepare the initial drafts of any follow-up letters in connection with the request.



#### **5.17.6 Subsequent Taxable Events.**

If, within ten (10) years from the date on which the relevant Transmission Provider's Interconnection Facilities are placed in service, (i) Interconnection Customer Breaches the covenants contained in Article 5.17.2, (ii) a "disqualification event" occurs within the meaning of IRS Notice 88-129, or (iii) this LGIA terminates and Transmission Provider retains ownership of the Interconnection Facilities and Network Upgrades, Interconnection Customer shall pay a tax gross-up for the cost consequences of any current tax liability imposed on Transmission Provider, calculated using the methodology described in Article 5.17.4 and in accordance with IRS Notice 90-60.

#### **5.17.7 Contests.**

In the event any Governmental Authority determines that Transmission Provider's receipt of payments or property constitutes income that is subject to taxation, Transmission Provider shall notify Interconnection Customer, in writing, within thirty (30) Calendar Days of receiving notification of such determination by a Governmental Authority. Upon the timely written request by Interconnection Customer and at Interconnection Customer's sole expense, Transmission Provider may appeal, protest, seek abatement of, or otherwise oppose such determination. Upon Interconnection Customer's written request and sole expense, Transmission Provider may file a claim for refund with respect to any taxes paid under this Article 5.17, whether or not it has received such a determination. Transmission Provider reserves the right to make all decisions with regard to the prosecution of such appeal, protest, abatement or other contest, including the selection of counsel and compromise or settlement of the claim, but Transmission Provider shall keep Interconnection Customer informed, shall consider in good faith suggestions from Interconnection Customer about the conduct of the contest, and shall reasonably permit Interconnection Customer or an Interconnection Customer representative to attend contest proceedings.

Interconnection Customer shall pay to Transmission Provider on a periodic basis, as invoiced by Transmission Provider, Transmission Provider's documented reasonable costs of prosecuting such appeal, protest, abatement or other contest. At any time during the contest, Transmission Provider may agree to a settlement either with Interconnection Customer's consent or after obtaining written advice from nationally-recognized tax counsel, selected by Transmission Provider, but reasonably acceptable to Interconnection Customer, that the proposed settlement represents a reasonable settlement given the hazards of litigation. Interconnection Customer's obligation shall be based on the amount of the settlement agreed to by Interconnection Customer, or if a higher amount, so much of the settlement that is supported by the written advice from nationally-recognized tax counsel selected under the terms of the preceding sentence. The settlement amount shall be calculated on a fully grossed-up basis to cover any related cost consequences of the current tax liability. Any settlement without Interconnection Customer's consent or such written advice will relieve Interconnection Customer from any obligation to indemnify Transmission Provider for the tax at issue in the contest.

#### **5.17.8 Refund.**

In the event that (a) a private letter ruling is issued to Transmission Provider which holds that any amount paid or the value of any property transferred by Interconnection Customer to Transmission Provider under the terms of this LGIA is not subject to federal income taxation, (b) any legislative change or administrative announcement, notice, ruling or other determination makes it reasonably clear to Transmission Provider in good faith that any amount paid or the value of any property transferred by Interconnection Customer to Transmission Provider under the terms of this LGIA is not taxable to Transmission Provider, (c) any abatement, appeal, protest, or other contest results in a determination that any payments or transfers made by Interconnection Customer to Transmission Provider are not subject to federal income tax, or (d) if Transmission Provider receives a refund from any taxing authority for any overpayment of tax attributable to any payment or property transfer made by Interconnection Customer to Transmission Provider pursuant to this LGIA, Transmission Provider shall promptly refund to Interconnection Customer the following:

- (i) any payment made by Interconnection Customer under this Article 5.17 for taxes that is attributable to the amount determined to be non-taxable, together with interest thereon,
- (ii) interest on any amount paid by Interconnection Customer to Transmission Provider for such taxes which Transmission Provider did not submit to the taxing authority, calculated in accordance with the methodology set forth in FERC's regulations at 18 CFR § 35.19a(a)(2)(iii) from the date payment was made by Interconnection Customer to the date Transmission Provider refunds such payment to Interconnection Customer, and
- (iii) with respect to any such taxes paid by Transmission Provider, any refund or credit Transmission Provider receives or to which it may be entitled from any Governmental Authority, interest (or that portion thereof attributable to the payment described in clause (i), above) owed to Transmission Provider for such overpayment of taxes (including any reduction in interest otherwise payable by Transmission Provider to any Governmental Authority resulting from an offset or credit); provided, however, that Transmission Provider will remit such amount promptly to Interconnection Customer only after and to the extent that Transmission Provider has received a tax refund, credit or offset from any Governmental Authority for any applicable overpayment of income tax related to Transmission Provider's Interconnection Facilities. The intent of this provision is to leave the Parties, to the extent practicable, in the event that no taxes are due with respect to any payment for Interconnection Facilities and Network Upgrades hereunder, in the same position they would have been in had no such tax payments been made.

#### **5.17.9 Taxes Other Than Income Taxes.**

Upon the timely request by Interconnection Customer, and at Interconnection Customer's sole expense, Transmission Provider may appeal, protest, seek abatement of, or otherwise contest any tax (other than federal or state income tax) asserted or assessed against Transmission Provider for which Interconnection Customer may be required to reimburse Transmission Provider under the terms of this LGIA. Interconnection Customer shall pay to Transmission Provider on a periodic basis, as invoiced by Transmission Provider, Transmission Provider's documented reasonable costs of prosecuting such appeal, protest, abatement, or other contest. Interconnection Customer and Transmission Provider shall cooperate in good faith with respect to any such contest. Unless the payment of such taxes is a prerequisite to an appeal or abatement or cannot be deferred, no amount shall be payable by Interconnection Customer to Transmission Provider for such taxes until they are assessed by a final, non-appealable order by any court or agency of competent jurisdiction. In the event that a tax payment is withheld and ultimately due and payable after appeal, Interconnection Customer will be responsible for all taxes, interest and penalties, other than penalties attributable to any delay caused by Transmission Provider.

#### **5.17.10 Transmission Owners Who Are Not Transmission Providers.**

If Transmission Provider is not the same entity as the Transmission Owner, then (i) all references in this Article 5.17 to Transmission Provider shall be deemed also to refer to and to include the Transmission Owner, as appropriate, and (ii) this LGIA shall not become effective until such Transmission Owner shall have agreed in writing to assume all of the duties and obligations of Transmission Provider under this Article 5.17 of this LGIA.

#### **5.18 Tax Status.**

Each Party shall cooperate with the other to maintain the other Party's tax status. Nothing in this LGIA is intended to adversely affect any Transmission Provider's tax exempt status with respect to the issuance of bonds including, but not limited to, Local Furnishing Bonds.

#### **5.19 Modification.**

##### **5.19.1 General.**

Either Party may undertake modifications to its facilities. If a Party plans to undertake a modification that reasonably may be expected to affect the other Party's facilities, that Party shall provide to the other Party sufficient information regarding such modification so that the other Party may evaluate the potential impact of such modification prior to commencement of the work. Such information shall be deemed to be confidential hereunder and shall include information concerning the timing of such modifications and whether such modifications are expected to interrupt the flow of electricity from the Large Generating Facility. The Party desiring to perform such work shall provide the relevant drawings, plans, and specifications to the other Party at least ninety (90) Calendar Days in advance of the commencement of the



work or such shorter period upon which the Parties may agree, which agreement shall not unreasonably be withheld, conditioned or delayed.

In the case of Large Generating Facility modifications that do not require Interconnection Customer to submit an Interconnection Request, Transmission Provider shall provide, within thirty (30) Calendar Days (or such other time as the Parties may agree), an estimate of any additional modifications to the Transmission System, Transmission Provider's Interconnection Facilities or Network Upgrades necessitated by such Interconnection Customer modification and a good faith estimate of the costs thereof.

**5.19.2 Standards.**

Any additions, modifications, or replacements made to a Party's facilities shall be designed, constructed, and operated in accordance with this LGIA and Good Utility Practice.

**5.19.3 Modification Costs.**

Interconnection Customer shall not be directly assigned for the costs of any additions, modifications, or replacements that Transmission Provider makes to Transmission Provider's Interconnection Facilities or the Transmission System to facilitate the interconnection of a third party to Transmission Provider's Interconnection Facilities or the Transmission System, or to provide transmission service to a third party under Transmission Provider's Tariff. Interconnection Customer shall be responsible for the costs of any additions, modifications, or replacements to Interconnection Customer's Interconnection Facilities that may be necessary to maintain or upgrade such Interconnection Customer's Interconnection Facilities consistent with Applicable Laws and Regulations, Applicable Reliability Standards or Good Utility Practice.

**Article 6. Testing and Inspection**

**6.1 Pre-Commercial Operation Date Testing and Modifications.**

Prior to the Commercial Operation Date, Transmission Provider shall test Transmission Provider's Interconnection Facilities and Network Upgrades and Interconnection Customer shall test the Large Generating Facility and Interconnection Customer's Interconnection Facilities to ensure their safe and reliable operation. Similar testing may be required after initial operation. Each Party shall make any modifications to its facilities that are found to be necessary as a result of such testing. Interconnection Customer shall bear the cost of all such testing and modifications. Interconnection Customer shall generate test energy at the Large Generating Facility only if it has arranged for the delivery of such test energy.

**6.2 Post-Commercial Operation Date Testing and Modifications.**

Each Party shall at its own expense perform routine inspection and testing of its facilities and equipment in accordance with Good Utility Practice as may be necessary to ensure the continued interconnection of the Large Generating Facility with the Transmission

System in a safe and reliable manner. Each Party shall have the right, upon advance written notice, to require reasonable additional testing of the other Party's facilities, at the requesting Party's expense, as may be in accordance with Good Utility Practice.

**6.3 Right to Observe Testing.**

Each Party shall notify the other Party in advance of its performance of tests of its Interconnection Facilities. The other Party has the right, at its own expense, to observe such testing.

**6.4 Right to Inspect.**

Each Party shall have the right, but shall have no obligation to: (i) observe the other Party's tests and/or inspection of any of its System Protection Facilities and other protective equipment, including Power System Stabilizers; (ii) review the settings of the other Party's System Protection Facilities and other protective equipment; and (iii) review the other Party's maintenance records relative to the Interconnection Facilities, the System Protection Facilities and other protective equipment. A Party may exercise these rights from time to time as it deems necessary upon reasonable notice to the other Party. The exercise or non-exercise by a Party of any such rights shall not be construed as an endorsement or confirmation of any element or condition of the Interconnection Facilities or the System Protection Facilities or other protective equipment or the operation thereof, or as a warranty as to the fitness, safety, desirability, or reliability of same. Any information that a Party obtains through the exercise of any of its rights under this Article 6.4 shall be deemed to be Confidential Information and treated pursuant to Article 22 of this LGIA.

**Article 7. Metering**

**7.1 General.**

Each Party shall comply with the Applicable Reliability Council requirements. Unless otherwise agreed by the Parties, Transmission Provider shall install Metering Equipment at the Point of Interconnection prior to any operation of the Large Generating Facility and shall own, operate, test and maintain such Metering Equipment. Power flows to and from the Large Generating Facility shall be measured at or, at Transmission Provider's option, compensated to, the Point of Interconnection. Transmission Provider shall provide metering quantities, in analog and/or digital form, to Interconnection Customer upon request. Interconnection Customer shall bear all reasonable documented costs associated with the purchase, installation, operation, testing and maintenance of the Metering Equipment.

**7.2 Check Meters.**

Interconnection Customer, at its option and expense, may install and operate, on its premises and on its side of the Point of Interconnection, one or more check meters to check Transmission Provider's meters. Such check meters shall be for check purposes only and shall not be used for the measurement of power flows for purposes of this LGIA, except as provided in Article 7.4 below. The check meters shall be subject at all reasonable times to inspection and examination by Transmission Provider or its designee. The installation, operation and maintenance thereof shall be performed entirely by Interconnection Customer in accordance with Good Utility Practice.

**7.3 Standards.**

Transmission Provider shall install, calibrate, and test revenue quality Metering Equipment in accordance with applicable ANSI standards.

**7.4 Testing of Metering Equipment.**

Transmission Provider shall inspect and test all Transmission Provider-owned Metering Equipment upon installation and at least once every two (2) years thereafter. If requested to do so by Interconnection Customer, Transmission Provider shall, at Interconnection Customer's expense, inspect or test Metering Equipment more frequently than every two (2) years. Transmission Provider shall give reasonable notice of the time when any inspection or test shall take place, and Interconnection Customer may have representatives present at the test or inspection. If at any time Metering Equipment is found to be inaccurate or defective, it shall be adjusted, repaired or replaced at Interconnection Customer's expense, in order to provide accurate metering, unless the inaccuracy or defect is due to Transmission Provider's failure to maintain, then Transmission Provider shall pay. If Metering Equipment fails to register, or if the measurement made by Metering Equipment during a test varies by more than two percent from the measurement made by the standard meter used in the test, Transmission Provider shall adjust the measurements by correcting all measurements for the period during which Metering Equipment was in error by using Interconnection Customer's check meters, if installed. If no such check meters are installed or if the period cannot be reasonably ascertained, the adjustment shall be for the period immediately preceding the test of the Metering Equipment equal to one-half the time from the date of the last previous test of the Metering Equipment.

**7.5 Metering Data.**

At Interconnection Customer's expense, the metered data shall be telemetered to one or more locations designated by Transmission Provider and one or more locations designated by Interconnection Customer. Such telemetered data shall be used, under normal operating conditions, as the official measurement of the amount of energy delivered from the Large Generating Facility to the Point of Interconnection.

**Article 8. Communications**

**8.1 Interconnection Customer Obligations.**

Interconnection Customer shall maintain satisfactory operating communications with Transmission Provider's Transmission System dispatcher or representative designated by Transmission Provider. Interconnection Customer shall provide standard voice line, dedicated voice line and facsimile communications at its Large Generating Facility control room or central dispatch facility through use of either the public telephone system, or a voice communications system that does not rely on the public telephone system. Interconnection Customer shall also provide the dedicated data circuit(s) necessary to provide Interconnection Customer data to Transmission Provider as set forth in Appendix D, Security Arrangements Details. The data circuit(s) shall extend from the Large Generating Facility to the location(s) specified by Transmission Provider. Any required maintenance of such communications equipment shall be performed by Interconnection Customer. Operational communications shall be activated and

maintained under, but not be limited to, the following events: system paralleling or separation, scheduled and unscheduled shutdowns, equipment clearances, and hourly and daily load data

## **8.2 Remote Terminal Unit.**

Prior to the Initial Synchronization Date of the Large Generating Facility, a Remote Terminal Unit, or equivalent data collection and transfer equipment acceptable to the Parties, shall be installed by Interconnection Customer, or by Transmission Provider at Interconnection Customer's expense, to gather accumulated and instantaneous data to be telemetered to the location(s) designated by Transmission Provider through use of a dedicated point-to-point data circuit(s) as indicated in Article 8.1. The communication protocol for the data circuit(s) shall be specified by Transmission Provider. Instantaneous bi-directional analog real power and reactive power flow information must be telemetered directly to the location(s) specified by Transmission Provider.

Each Party will promptly advise the other Party if it detects or otherwise learns of any metering, telemetry or communications equipment errors or malfunctions that require the attention and/or correction by the other Party. The Party owning such equipment shall correct such error or malfunction as soon as reasonably feasible.

## **8.3 No Annexation.**

Any and all equipment placed on the premises of a Party shall be and remain the property of the Party providing such equipment regardless of the mode and manner of annexation or attachment to real property, unless otherwise mutually agreed by the Parties.

## **8.4 Provision of Data from a Variable Energy Resource.**

The Interconnection Customer whose Generating Facility is a Variable Energy Resource shall provide meteorological and forced outage data to the Transmission Provider to the extent necessary for the Transmission Provider's development and deployment of power production forecasts for that class of Variable Energy Resources.

The Interconnection Customer with a Variable Energy Resource having wind as the energy source, at a minimum, will be required to provide the Transmission Provider with site-specific meteorological data including: manufacturer, model, and year of all wind turbines and meteorological instrumentation, latitude, longitude and hub height at every wind turbine and meteorological tower, real-time data including turbine generation (kW), wind speed (mph), turbine availability, wind direction (in degrees relative to true north), temperature (Celsius and F), pressure (mb), air density and turbine manufacturer power curve. The information provided shall be refreshed in approximately four-ten (4-10) second intervals with regard to its generation of Renewable Energy at the Facility.

The Interconnection Customer with a Variable Energy Resource having solar as the energy source, at a minimum, will be required to provide the Transmission Provider with site-specific meteorological data including: manufacturer, model and year of all panels, inverters and meteorological instrumentation, latitude and longitude of the center of the solar panels for every inverter and every meteorological tower, real-time data including inverter generation (kW), inverter availability, direct normal solar insolation (solar

intensity), temperature, barometric pressure, wind speed (mph), wind direction (degrees relative to true north) and solar panel manufacturer power curve. The information provided shall be refreshed as frequently as allowed by the SCADA System, not to exceed sixty (60) second intervals.

The Transmission Provider and Interconnection Customer whose Generating Facility is a Variable Energy Resource shall mutually agree to any additional meteorological data that are required for the development and deployment of a power production forecast. The Interconnection Customer whose Generating Facility is a Variable Energy Resource also shall submit data to the Transmission Provider regarding all forced outages to the extent necessary for the Transmission Provider's development and deployment of power production forecasts for that class of Variable Energy Resources. The exact specifications of the meteorological and forced outage data to be provided by the Interconnection Customer to the Transmission Provider including the frequency and timing of data submittals shall be made taking into account the size and configuration of the Variable Energy Resource, its characteristics, location, and its importance in maintaining generation resource adequacy and transmission system reliability in its area. All requirements for meteorological and forced outage data must be commensurate with the power production forecasting employed by the Transmission Provider. Such requirements for meteorological and forced outage data are set forth in Appendix C, Interconnection Details, of this LGIA, as they may change from time to time.

## **Article 9. Operations**

- 9.1 General.** Each Party shall comply with the Applicable Reliability Council requirements. Each Party shall provide to the other Party all information that may reasonably be required by the other Party to comply with Applicable Laws and Regulations and Applicable Reliability Standards.
- 9.2 Control Area Notification.** At least three months before Initial Synchronization Date, Interconnection Customer shall notify Transmission Provider in writing of the Control Area in which the Large Generating Facility will be located. If Interconnection Customer elects to locate the Large Generating Facility in a Control Area other than the Control Area in which the Large Generating Facility is physically located, and if permitted to do so by the relevant transmission tariffs, all necessary arrangements, including but not limited to those set forth in Article 7 and Article 8 of this LGIA, and remote Control Area generator interchange agreements, if applicable, and the appropriate measures under such agreements, shall be executed and implemented prior to the placement of the Large Generating Facility in the other Control Area.
- 9.3 Transmission Provider Obligations.** Transmission Provider shall cause the Transmission System and Transmission Provider's Interconnection Facilities to be operated, maintained and controlled in a safe and reliable manner and in accordance with this LGIA. Transmission Provider may provide operating instructions to Interconnection Customer consistent with this LGIA and Transmission Provider's operating protocols and procedures as they may change from time to time. Transmission Provider will consider changes to its operating protocols and procedures proposed by Interconnection Customer.

**9.4 Interconnection Customer Obligations.** Interconnection Customer shall at its own expense operate, maintain and control the Large Generating Facility and Interconnection Customer's Interconnection Facilities in a safe and reliable manner and in accordance with this LGIA. Interconnection Customer shall operate the Large Generating Facility and Interconnection Customer's Interconnection Facilities in accordance with all applicable requirements of the Control Area of which it is part, as such requirements are set forth in Appendix C, Interconnection Details, of this LGIA. Appendix C, Interconnection Details, will be modified to reflect changes to the requirements as they may change from time to time. Either Party may request that the other Party provide copies of the requirements set forth in Appendix C, Interconnection Details, of this LGIA.

**9.5 Start-Up and Synchronization.** Consistent with the Parties' mutually acceptable procedures, Interconnection Customer is responsible for the proper synchronization of the Large Generating Facility to Transmission Provider's Transmission System.

**9.6 Reactive Power and Primary Frequency Response.**

**9.6.1 Power Factor Design Criteria.**

**9.6.1.1 Synchronous Generation.** Interconnection Customer shall design the Large Generating Facility to maintain a composite power delivery at continuous rated power output at the Point of Interconnection at a power factor within the range of 0.95 leading to 0.95 lagging, unless the Transmission Provider has established different requirements that apply to all synchronous generators in the Control Area on a comparable basis.

**9.6.1.2 Non-Synchronous Generation.** Interconnection Customer shall design the Large Generating Facility to maintain a composite power delivery at continuous rated power output at the high-side of the generator substation at a power factor within the range of 0.95 leading to 0.95 lagging, unless the Transmission Provider has established a different power factor range that applies to all non-synchronous generators in the Control Area on a comparable basis. This power factor range standard shall be dynamic and can be met using, for example, power electronics designed to supply this level of reactive capability (taking into account any limitations due to voltage level, real power output, etc.) or fixed and switched capacitors, or a combination of the two. This requirement shall only apply to newly interconnecting non-synchronous generators that have not yet executed a Facilities Study Agreement as of the effective date of the Final Rule establishing this requirement (Order No. 827).<sup>1</sup> This requirement also applies to existing non-synchronous generators making upgrades that require a new Generator Interconnection Agreement where the System Impact Study shows the need for reactive power as a result of an upgrade.



[1] The effective date of Order 827 is October 14, 2016.

**9.6.2 Voltage Schedules.** Once Interconnection Customer has synchronized the Large Generating Facility with the Transmission System, Transmission Provider shall require Interconnection Customer to operate the Large Generating Facility to produce or absorb reactive power within the design limitations of the Large Generating Facility set forth in Article 9.6.1 (Power Factor Design Criteria). Transmission Provider's voltage schedules shall treat all sources of reactive power in the Control Area in an equitable and not unduly discriminatory manner. Transmission Provider shall exercise Reasonable Efforts to provide Interconnection Customer with such schedules at least one (1) day in advance, and may make changes to such schedules as necessary to maintain the reliability of the Transmission System. Interconnection Customer shall operate the Large Generating Facility to maintain the specified output voltage or power factor at the Point of Interconnection within the design limitations of the Large Generating Facility set forth in Article 9.6.1 (Power Factor Design Criteria). If Interconnection Customer is unable to maintain the specified voltage or power factor, it shall promptly notify the System Operator.

**9.6.2.1 Voltage Regulators.**

Whenever the Large Generating Facility is operated in parallel with the Transmission System and voltage regulators are capable of operation, Interconnection Customer shall operate the Large Generating Facility with its voltage regulators in automatic operation. If the Large Generating Facility's voltage regulators are not capable of such automatic operation, Interconnection Customer shall immediately notify Transmission Provider's system operator, or its designated representative, and ensure that such Large Generating Facility's reactive power production or absorption (measured in MVARs) are within the design capability of the Large Generating Facility's generating unit(s) and steady state stability limits. Interconnection Customer shall not cause its Large Generating Facility to disconnect automatically or instantaneously from the Transmission System or trip any generating unit comprising the Large Generating Facility for an under or over frequency condition unless the abnormal frequency condition persists for a time period beyond the limits set forth in ANSI/IEEE Standard C37.106, or such other standard as applied to other generators in the Control Area on a comparable basis.

**9.6.3 Payment for Reactive Power.**

Transmission Provider is required to pay Interconnection Customer for reactive power that Interconnection Customer provides or absorbs from the Large Generating Facility when Transmission Provider requests Interconnection Customer to operate its Large Generating Facility outside the range specified in Article 9.6.1, provided that if

Transmission Provider pays its own or affiliated generators for reactive power service within the specified range, it must also pay Interconnection Customer. Payments shall be pursuant to Article 11.6 or such other agreement to which the Parties have otherwise agreed.

#### **9.6.4 Primary Frequency Response.**

Interconnection Customer shall ensure the primary frequency response capability of its Large Generating Facility by installing, maintaining, and operating a functioning governor or equivalent controls. The term “functioning governor or equivalent controls” as used herein shall mean the required hardware and/or software that provides frequency responsive real power control with the ability to sense changes in system frequency and autonomously adjust the Large Generating Facility’s real power output in accordance with the droop and deadband parameters and in the direction needed to correct frequency deviations. Interconnection Customer is required to install a governor or equivalent controls with the capability of operating: (1) with a maximum 5 percent droop and  $\pm 0.036$  Hz deadband; or (2) in accordance with the relevant droop, deadband, and timely and sustained response settings from an approved NERC Reliability Standard providing for equivalent or more stringent parameters. The droop characteristic shall be: (1) based on the nameplate capacity of the Large Generating Facility, and shall be linear in the range of frequencies between 59 to 61 Hz that are outside of the deadband parameter; or (2) based on an approved NERC Reliability Standard providing for an equivalent or more stringent parameter. The deadband parameter shall be: the range of frequencies above and below nominal (60 Hz) in which the governor or equivalent controls is not expected to adjust the Large Generating Facility’s real power output in response to frequency deviations. The deadband shall be implemented: (1) without a step to the droop curve, that is, once the frequency deviation exceeds the deadband parameter, the expected change in the Large Generating Facility’s real power output in response to frequency deviations shall start from zero and then increase (for under-frequency deviations) or decrease (for over-frequency deviations) linearly in proportion to the magnitude of the frequency deviation; or (2) in accordance with an approved NERC Reliability Standard providing for an equivalent or more stringent parameter. Interconnection Customer shall notify Transmission Provider that the primary frequency response capability of the Large Generating Facility has been tested and confirmed during commissioning. Once Interconnection Customer has synchronized the Large Generating Facility with the Transmission System, Interconnection Customer shall operate the Large Generating Facility consistent with the provisions specified in Articles 9.6.4.1 and 9.6.4.2 of this Agreement. The primary frequency response requirements contained herein shall apply to both synchronous and non-synchronous Large Generating Facilities.



**9.6.4.1 Governor or Equivalent Controls.**

Whenever the Large Generating Facility is operated in parallel with the Transmission System, Interconnection Customer shall operate the Large Generating Facility with its governor or equivalent controls in service and responsive to frequency. Interconnection Customer shall: (1) in coordination with Transmission Provider and/or the relevant balancing authority, set the deadband parameter to: (1) a maximum of  $\pm 0.036$  Hz and set the droop parameter to a maximum of 5 percent or (2) implement the relevant droop and deadband settings from an approved NERC Reliability Standard that provides for equivalent or more stringent parameters. Interconnection Customer shall be required to provide the status and settings of the governor or equivalent controls to Transmission Provider and/or the relevant balancing authority upon request. If Interconnection Customer needs to operate the Large Generating Facility with its governor or equivalent controls not in service, Interconnection Customer shall immediately notify Transmission Provider and the relevant balancing authority, and provide both with the following information: (1) the operating status of the governor or equivalent controls (i.e., whether it is currently out of service or when it will be taken out of service); (2) the reasons for removing the governor or equivalent controls from service; and (3) a reasonable estimate of when the governor or equivalent controls will be returned to service. Interconnection Customer shall make Reasonable Efforts to return its governor or equivalent controls into service as soon as practicable. Interconnection Customer shall make Reasonable Efforts to keep outages of the Large Generating Facility's governor or equivalent controls to a minimum whenever the Large Generating Facility is operated in parallel with the Transmission System.

**9.6.4.2 Timely and Sustained Response.**

Interconnection Customer shall ensure that the Large Generating Facility's real power response to sustained frequency deviations outside of the deadband setting is automatically provided and shall begin immediately after frequency deviates outside of the deadband, and to the extent the Large Generating Facility has operating capability in the direction needed to correct the frequency deviation. Interconnection Customer shall not block or otherwise inhibit the ability of the governor or equivalent controls to respond and shall ensure that the response is not inhibited, except under certain operational constraints including, but not limited to, ambient temperature limitations, physical energy limitations, outages of mechanical equipment, or regulatory requirements. The Large Generating Facility shall sustain the real power response at least until system frequency returns to a value

within the deadband setting of the governor or equivalent controls. A Commission-approved Reliability Standard with equivalent or more stringent requirements shall supersede the above requirements.

**9.6.4.3 Exemptions.**

Large Generating Facilities that are regulated by the United States Nuclear Regulatory Commission shall be exempt from Articles 9.6.4, 9.6.4.1, and 9.6.4.2 of this Agreement. Large Generating Facilities that are behind the meter generation that is sized-to-load (i.e., the thermal load and the generation are near-balanced in real-time operation and the generation is primarily controlled to maintain the unique thermal, chemical, or mechanical output necessary for the operating requirements of its host facility) shall be required to install primary frequency response capability in accordance with the droop and deadband capability requirements specified in Article 9.6.4, but shall be otherwise exempt from the operating requirements in Articles 9.6.4, 9.6.4.1, 9.6.4.2, and 9.6.4.4 of this Agreement.

**9.6.4.4 Electric Storage Resources.**

Interconnection Customer interconnecting an electric storage resource shall establish an operating range in Appendix C of its LGIA that specifies a minimum state of charge and a maximum state of charge between which the electric storage resource will be required to provide primary frequency response consistent with the conditions set forth in Articles 9.6.4, 9.6.4.1, 9.6.4.2, and 9.6.4.3 of this Agreement. Appendix C shall specify whether the operating range is static or dynamic, and shall consider (1) the expected magnitude of frequency deviations in the interconnection; (2) the expected duration that system frequency will remain outside of the deadband parameter in the interconnection; (3) the expected incidence of frequency deviations outside of the deadband parameter in the interconnection; (4) the physical capabilities of the electric storage resource; (5) operational limitations of the electric storage resource due to manufacturer specifications; and (6) any other relevant factors agreed to by Transmission Provider and Interconnection Customer, and in consultation with the relevant transmission owner or balancing authority as appropriate. If the operating range is dynamic, then Appendix C must establish how frequently the operating range will be reevaluated and the factors that may be considered during its reevaluation.

Interconnection Customer's electric storage resource is required to provide timely and sustained primary frequency response consistent with Article 9.6.4.2 of this Agreement when it is online and dispatched to inject electricity to the Transmission System

and/or receive electricity from the Transmission System. This excludes circumstances when the electric storage resource is not dispatched to inject electricity to the Transmission System and/or dispatched to receive electricity from the Transmission System. If Interconnection Customer's electric storage resource is charging at the time of a frequency deviation outside of its deadband parameter, it is to increase (for over-frequency deviations) or decrease (for under-frequency deviations) the rate at which it is charging in accordance with its droop parameter. Interconnection Customer's electric storage resource is not required to change from charging to discharging, or vice versa, unless the response necessitated by the droop and deadband settings requires it to do so and it is technically capable of making such a transition.

## **9.7 Outages and Interruptions.**

### **9.7.1 Outages.**

#### **9.7.1.1 Outage Authority and Coordination.**

Each Party may in accordance with Good Utility Practice in coordination with the other Party remove from service any of its respective Interconnection Facilities or Network Upgrades that may impact the other Party's facilities as necessary to perform maintenance or testing or to install or replace equipment. Absent an Emergency Condition, the Party scheduling a removal of such facility(ies) from service will use Reasonable Efforts to schedule such removal on a date and time mutually acceptable to the Parties. In all circumstances, any Party planning to remove such facility(ies) from service shall use Reasonable Efforts to minimize the effect on the other Party of such removal.

#### **9.7.1.2 Outage Schedules.**

Transmission Provider shall post scheduled outages of its transmission facilities on the OASIS. Interconnection Customer shall submit its planned maintenance schedules for the Large Generating Facility to Transmission Provider for a minimum of a rolling twenty-four month period. Interconnection Customer shall update its planned maintenance schedules as necessary. Transmission Provider may request Interconnection Customer to reschedule its maintenance as necessary to maintain the reliability of the Transmission System; provided, however, adequacy of generation supply shall not be a criterion in determining Transmission System reliability. Transmission Provider shall compensate Interconnection Customer for any additional direct costs that Interconnection Customer incurs as a result of having to reschedule maintenance, including any additional overtime, breaking of maintenance contracts or other costs above and beyond the cost Interconnection Customer would have incurred

absent Transmission Provider's request to reschedule maintenance. Interconnection Customer will not be eligible to receive compensation, if during the twelve (12) months prior to the date of the scheduled maintenance, Interconnection Customer had modified its schedule of maintenance activities.

**9.7.1.3 Outage Restoration.**

If an outage on a Party's Interconnection Facilities or Network Upgrades adversely affects the other Party's operations or facilities, the Party that owns or controls the facility that is out of service shall use Reasonable Efforts to promptly restore such facility(ies) to a normal operating condition consistent with the nature of the outage. The Party that owns or controls the facility that is out of service shall provide the other Party, to the extent such information is known, information on the nature of the Emergency Condition, an estimated time of restoration, and any corrective actions required. Initial verbal notice shall be followed up as soon as practicable with written notice explaining the nature of the outage.

**9.7.2 Interruption of Service.**

If required by Good Utility Practice to do so, Transmission Provider may require Interconnection Customer to interrupt or reduce deliveries of electricity if such delivery of electricity could adversely affect Transmission Provider's ability to perform such activities as are necessary to safely and reliably operate and maintain the Transmission System. The following provisions shall apply to any interruption or reduction permitted under this Article 9.7.2:

**9.7.2.1** The interruption or reduction shall continue only for so long as reasonably necessary under Good Utility Practice;

**9.7.2.2** Any such interruption or reduction shall be made on an equitable, non-discriminatory basis with respect to all generating facilities directly connected to the Transmission System;

**9.7.2.3** When the interruption or reduction must be made under circumstances which do not allow for advance notice, Transmission Provider shall notify Interconnection Customer by telephone as soon as practicable of the reasons for the curtailment, interruption, or reduction, and, if known, its expected duration. Telephone notification shall be followed by written notification as soon as practicable;

**9.7.2.4** Except during the existence of an Emergency Condition, when the interruption or reduction can be scheduled without advance notice, Transmission Provider shall notify Interconnection Customer in advance regarding the timing of such scheduling and further notify

Interconnection Customer of the expected duration. Transmission Provider shall coordinate with Interconnection Customer using Good Utility Practice to schedule the interruption or reduction during periods of least impact to Interconnection Customer and Transmission Provider; and

- 9.7.2.5** The Parties shall cooperate and coordinate with each other to the extent necessary in order to restore the Large Generating Facility, Interconnection Facilities, and the Transmission System to their normal operating state, consistent with system conditions and Good Utility Practice.

**9.7.3 Under-Frequency and Over Frequency Conditions.**

The Transmission System is designed to automatically activate a load-shed program as required by the Applicable Reliability Council in the event of an under-frequency system disturbance. Interconnection Customer shall implement under-frequency and over-frequency relay set points for the Large Generating Facility as required by the Applicable Reliability Council to ensure “ride through” capability of the Transmission System. Large Generating Facility response to frequency deviations of pre-determined magnitudes, both under-frequency and over-frequency deviations, shall be studied and coordinated with Transmission Provider in accordance with Good Utility Practice. The term “ride through” as used herein shall mean the ability of a Generating Facility to stay connected to and synchronized with the Transmission System during system disturbances within a range of under-frequency and over-frequency conditions, in accordance with Good Utility Practice.

**9.7.4 System Protection and Other Control Requirements.**

- 9.7.4.1 System Protection Facilities.** Interconnection Customer shall, at its expense, install, operate and maintain System Protection Facilities as a part of the Large Generating Facility or Interconnection Customer's Interconnection Facilities. Transmission Provider shall install at Interconnection Customer's expense any System Protection Facilities that may be required on Transmission Provider's Interconnection Facilities or the Transmission System as a result of the interconnection of the Large Generating Facility and Interconnection Customer's Interconnection Facilities.

- 9.7.4.2** Each Party's protection facilities shall be designed and coordinated with other systems in accordance with Good Utility Practice.

- 9.7.4.3** Each Party shall be responsible for protection of its facilities consistent with Good Utility Practice.

- 9.7.4.4** Each Party's protective relay design shall incorporate the necessary test switches to perform the tests required in Article 6. The required test switches will be placed such that they allow operation of lockout relays while preventing breaker failure schemes from operating and causing unnecessary breaker operations and/or the tripping of Interconnection Customer's units.
- 9.7.4.5** Each Party will test, operate and maintain System Protection Facilities in accordance with Good Utility Practice.
- 9.7.4.6** Prior to the In-Service Date, and again prior to the Commercial Operation Date, each Party or its agent shall perform a complete calibration test and functional trip test of the System Protection Facilities. At intervals suggested by Good Utility Practice and following any apparent malfunction of the System Protection Facilities, each Party shall perform both calibration and functional trip tests of its System Protection Facilities. These tests do not require the tripping of any in-service generation unit. These tests do, however, require that all protective relays and lockout contacts be activated

**9.7.5 Requirements for Protection.**

In compliance with Good Utility Practice, Interconnection Customer shall provide, install, own, and maintain relays, circuit breakers and all other devices necessary to remove any fault contribution of the Large Generating Facility to any short circuit occurring on the Transmission System not otherwise isolated by Transmission Provider's equipment, such that the removal of the fault contribution shall be coordinated with the protective requirements of the Transmission System. Such protective equipment shall include, without limitation, a disconnecting device or switch with load-interrupting capability located between the Large Generating Facility and the Transmission System at a site selected upon mutual agreement (not to be unreasonably withheld, conditioned or delayed) of the Parties. Interconnection Customer shall be responsible for protection of the Large Generating Facility and Interconnection Customer's other equipment from such conditions as negative sequence currents, over- or under-frequency, sudden load rejection, over- or under-voltage, and generator loss-of-field. Interconnection Customer shall be solely responsible to disconnect the Large Generating Facility and Interconnection Customer's other equipment if conditions on the Transmission System could adversely affect the Large Generating Facility.

**9.7.6 Power Quality.**

Neither Party's facilities shall cause excessive voltage flicker nor introduce excessive distortion to the sinusoidal voltage or current waves as defined by ANSI Standard C84.1-1989, in accordance with IEEE Standard 519, or any applicable superseding electric industry standard. In the event of a conflict between ANSI Standard C84.1-1989, or any applicable superseding electric



industry standard, ANSI Standard C84.1-1989, or the applicable superseding electric industry standard, shall control.

**9.8 Switching and Tagging Rules.**

Each Party shall provide the other Party a copy of its switching and tagging rules that are applicable to the other Party's activities. Such switching and tagging rules shall be developed on a non-discriminatory basis. The Parties shall comply with applicable switching and tagging rules, as amended from time to time, in obtaining clearances for work or for switching operations on equipment.

**9.9 Use of Interconnection Facilities by Third Parties.**

**9.9.1 Purpose of Interconnection Facilities.**

Except as may be required by Applicable Laws and Regulations, or as otherwise agreed to among the Parties, the Interconnection Facilities shall be constructed for the sole purpose of interconnecting the Large Generating Facility to the Transmission System and shall be used for no other purpose.

**9.9.2 Third Party Users.**

If required by Applicable Laws and Regulations or if the Parties mutually agree, such agreement not to be unreasonably withheld, to allow one or more third parties to use Transmission Provider's Interconnection Facilities, or any part thereof, Interconnection Customer will be entitled to compensation for the capital expenses it incurred in connection with the Interconnection Facilities based upon the pro rata use of the Interconnection Facilities by Transmission Provider, all third party users, and Interconnection Customer, in accordance with Applicable Laws and Regulations or upon some other mutually-agreed upon methodology. In addition, cost responsibility for ongoing costs, including operation and maintenance costs associated with the Interconnection Facilities, will be allocated between Interconnection Customer and any third party users based upon the pro rata use of the Interconnection Facilities by Transmission Provider, all third party users, and Interconnection Customer, in accordance with Applicable Laws and Regulations or upon some other mutually agreed upon methodology. If the issue of such compensation or allocation cannot be resolved through such negotiations, it shall be submitted to FERC for resolution.

**9.10 Disturbance Analysis Data Exchange.**

The Parties will cooperate with one another in the analysis of disturbances to either the Large Generating Facility or Transmission Provider's Transmission System by gathering and providing access to any information relating to any disturbance, including information from oscillography, protective relay targets, breaker operations and sequence of events records, and any disturbance information required by Good Utility Practice

**Article 10. Maintenance.**

**10.1 Transmission Provider Obligations.**

Transmission Provider shall maintain the Transmission System and Transmission Provider's Interconnection Facilities in a safe and reliable manner and in accordance with this LGIA.

**10.2 Interconnection Customer Obligations.**

Interconnection Customer shall maintain the Large Generating Facility and Interconnection Customer's Interconnection Facilities in a safe and reliable manner and in accordance with this LGIA.

**10.3 Coordination.**

The Parties shall confer regularly to coordinate the planning, scheduling and performance of preventive and corrective maintenance on the Large Generating Facility and the Interconnection Facilities.

**10.4 Secondary Systems.**

Each Party shall cooperate with the other in the inspection, maintenance, and testing of control or power circuits that operate below 600 volts, AC or DC, including, but not limited to, any hardware, control or protective devices, cables, conductors, electric raceways, secondary equipment panels, transducers, batteries, chargers, and voltage and current transformers that directly affect the operation of a Party's facilities and equipment which may reasonably be expected to impact the other Party. Each Party shall provide advance notice to the other Party before undertaking any work on such circuits, especially on electrical circuits involving circuit breaker trip and close contacts, current transformers, or potential transformers.

**10.5 Operating and Maintenance Expenses.**

Subject to the provisions herein addressing the use of facilities by others, and except for operations and maintenance expenses associated with modifications made for providing interconnection or transmission service to a third party and such third party pays for such expenses, Interconnection Customer shall be responsible for all reasonable expenses including overheads, associated with: (1) owning, operating, maintaining, repairing, and replacing Interconnection Customer's Interconnection Facilities; and (2) operation, maintenance, repair and replacement of Transmission Provider's Interconnection Facilities.

**Article 11. Performance Obligation.**

**11.1 Interconnection Customer Interconnection Facilities.**

Interconnection Customer shall design, procure, construct, install, own and/or control Interconnection Customer Interconnection Facilities described in Appendix A, Interconnection Facilities, Network Upgrades and Distribution Upgrades, at its sole expense.

**11.2 Transmission Provider's Interconnection Facilities.**

Transmission Provider or Transmission Owner shall design, procure, construct, install, own and/or control the Transmission Provider's Interconnection Facilities described in Appendix A, Interconnection Facilities, Network Upgrades and Distribution Upgrades, at the sole expense of the Interconnection Customer.



### **11.3 Network Upgrades and Distribution Upgrades.**

Transmission Provider or Transmission Owner shall design, procure, construct, install, and own the Network Upgrades and Distribution Upgrades described in Appendix A, Interconnection Facilities, Network Upgrades and Distribution Upgrades. The Interconnection Customer shall be responsible for all costs related to Distribution Upgrades. Unless Transmission Provider or Transmission Owner elects to fund the capital for the Network Upgrades, they shall be solely funded by Interconnection Customer.

### **11.4 Transmission Credits.**

#### **11.4.1 Repayment of Amounts Advanced for Network Upgrades.**

Interconnection Customer shall be entitled to a cash repayment, equal to the total amount paid to Transmission Provider and Affected System Operator, if any, for the Network Upgrades, including any tax gross-up or other tax-related payments associated with Network Upgrades, and not refunded to Interconnection Customer pursuant to Article 5.17.8 or otherwise, to be paid to Interconnection Customer on a dollar-for-dollar basis for the non-usage sensitive portion of transmission charges, as payments are made under Transmission Provider's Tariff and Affected System's Tariff for transmission services with respect to the Large Generating Facility. Any repayment shall include interest calculated in accordance with the methodology set forth in FERC's regulations at 18 CFR § 35.19a(a)(2)(iii) from the date of any cash payment for Network Upgrades through the date on which the Interconnection Customer receives a repayment of such payment pursuant to this subparagraph. Interconnection Customer may assign such repayment rights to any person.

Notwithstanding the foregoing, Interconnection Customer, Transmission Provider, and Affected System Operator may adopt any alternative payment schedule that is mutually agreeable so long as Transmission Provider and Affected System Operator take one of the following actions no later than five years from the Commercial Operation Date: (1) return to Interconnection Customer any amounts advanced for Network Upgrades not previously repaid, or (2) declare in writing that Transmission Provider or Affected System Operator will continue to provide payments to Interconnection Customer on a dollar-for-dollar basis for the non-usage sensitive portion of transmission charges, or develop an alternative schedule that is mutually agreeable and provides for the return of all amounts advanced for Network Upgrades not previously repaid; however, full reimbursement shall not extend beyond twenty (20) years from the Commercial Operation Date.

If the Large Generating Facility fails to achieve Commercial Operation, but it or another Generating Facility is later constructed and makes use of the Network Upgrades, Transmission Provider and Affected System Operator shall at that time reimburse Interconnection Customer for the amounts advanced for the Network Upgrades. Before any such reimbursement can

occur, the Interconnection Customer, or the entity that ultimately constructs the Generating Facility, if different, is responsible for identifying the entity to which reimbursement must be made.

**11.4.2 Special Provisions for Affected Systems.**

Unless Transmission Provider provides, under the LGIA, for the repayment of amounts advanced to Affected System Operator for Network Upgrades, Interconnection Customer and Affected System Operator shall enter into an agreement that provides for such repayment. The agreement shall specify the terms governing payments to be made by Interconnection Customer to the Affected System Operator as well as the repayment by the Affected System Operator.

- 11.4.3** Notwithstanding any other provision of this LGIA, nothing herein shall be construed as relinquishing or foreclosing any rights, including but not limited to firm transmission rights, capacity rights, transmission congestion rights, or transmission credits, that Interconnection Customer, shall be entitled to, now or in the future under any other agreement or tariff as a result of, or otherwise associated with, the transmission capacity, if any, created by the Network Upgrades, including the right to obtain cash reimbursements or transmission credits for transmission service that is not associated with the Large Generating Facility.

**11.5 Provision of Security.**

At least thirty (30) Calendar Days prior to the commencement of the procurement, installation, or construction of a discrete portion of a Transmission Provider's Interconnection Facilities, Network Upgrades, or Distribution Upgrades, Interconnection Customer shall provide Transmission Provider, at Interconnection Customer's option, a guarantee, a surety bond, letter of credit or other form of security that is reasonably acceptable to Transmission Provider and is consistent with the Uniform Commercial Code of the jurisdiction identified in Article 14.2.1. Such security for payment shall be in an amount sufficient to cover the costs for constructing, procuring and installing the applicable portion of Transmission Provider's Interconnection Facilities, Network Upgrades, or Distribution Upgrades and shall be reduced on a dollar-for-dollar basis for payments made to Transmission Provider for these purposes.

In addition:

- 11.5.1** The guarantee must be made by an entity that meets the creditworthiness requirements of Transmission Provider, and contain terms and conditions that guarantee payment of any amount that may be due from Interconnection Customer, up to an agreed-to maximum amount.
- 11.5.2** The letter of credit must be issued by a financial institution reasonably acceptable to Transmission Provider and must specify a reasonable expiration date.

**11.5.3** The surety bond must be issued by an insurer reasonably acceptable to Transmission Provider and must specify a reasonable expiration date.

**11.6 Interconnection Customer Compensation.**

If Transmission Provider requests or directs Interconnection Customer to provide a service pursuant to Articles 9.6.3 (Payment for Reactive Power), or 13.5.1 of this LGIA, Transmission Provider shall compensate Interconnection Customer in accordance with Interconnection Customer's applicable rate schedule then in effect unless the provision of such service(s) is subject to an RTO or ISO FERC-approved rate schedule. Interconnection Customer shall serve Transmission Provider or RTO or ISO with any filing of a proposed rate schedule at the time of such filing with FERC. To the extent that no rate schedule is in effect at the time the Interconnection Customer is required to provide or absorb any Reactive Power under this LGIA, Transmission Provider agrees to compensate Interconnection Customer in such amount as would have been due Interconnection Customer had the rate schedule been in effect at the time service commenced; provided, however, that such rate schedule must be filed at FERC or other appropriate Governmental Authority within sixty (60) Calendar Days of the commencement of service

**11.6.1 Interconnection Customer Compensation for Actions During Emergency Condition.**

Transmission Provider or RTO or ISO shall compensate Interconnection Customer for its provision of real and reactive power and other Emergency Condition services that Interconnection Customer provides to support the Transmission System during an Emergency Condition in accordance with Article 11.6.

**Article 12. Invoice.**

**12.1 General.**

Each Party shall submit to the other Party, on a monthly basis, invoices of amounts due for the preceding month. Each invoice shall state the month to which the invoice applies and fully describe the services and equipment provided. The Parties may discharge mutual debts and payment obligations due and owing to each other on the same date through netting, in which case all amounts a Party owes to the other Party under this LGIA, including interest payments or credits, shall be netted so that only the net amount remaining due shall be paid by the owing Party.

**12.2 Final Invoice.**

Within six months after completion of the construction of Transmission Provider's Interconnection Facilities and the Network Upgrades, Transmission Provider shall provide an invoice of the final cost of the construction of Transmission Provider's Interconnection Facilities and the Network Upgrades and shall set forth such costs in sufficient detail to enable Interconnection Customer to compare the actual costs with the estimates and to ascertain deviations, if any, from the cost estimates. Transmission Provider shall refund to Interconnection Customer any amount by which the actual payment by Interconnection Customer for estimated costs exceeds the actual costs of

construction within thirty (30) Calendar Days of the issuance of such final construction invoice.

**12.3 Payment.**

Invoices shall be rendered to the paying Party at the address specified in Appendix F. The Party receiving the invoice shall pay the invoice within thirty (30) Calendar Days of receipt. All payments shall be made in immediately available funds payable to the other Party, or by wire transfer to a bank named and account designated by the invoicing Party. Payment of invoices by either Party will not constitute a waiver of any rights or claims either Party may have under this LGIA. If Interconnection Customer has not paid the final invoice following a withdrawal within thirty (30) Calendar Days, Transmission Provider shall draw upon the security provided under this LGIA to settle all accounts, which shall include any offsets of amounts due and owing by Transmission Provider. After the final invoice is paid and all accounts are settled, Transmission Provider shall refund all remaining security.

**12.4 Disputes.**

In the event of a billing dispute between Transmission Provider and Interconnection Customer, Transmission Provider shall continue to provide Interconnection Service under this LGIA as long as Interconnection Customer: (i) continues to make all payments not in dispute; and (ii) pays to Transmission Provider or into an independent escrow account the portion of the invoice in dispute, pending resolution of such dispute. If Interconnection Customer fails to meet these two requirements for continuation of service, then Transmission Provider may provide notice to Interconnection Customer of a Default pursuant to Article 17. Within thirty (30) Calendar Days after the resolution of the dispute, the Party that owes money to the other Party shall pay the amount due with interest calculated in accord with the methodology set forth in FERC's regulations at 18 CFR § 35.19a(a)(2)(iii)

**Article 13. Emergencies**

**13.1 Definition.**

Emergency Condition" shall mean a condition or situation: (i) that in the judgment of the Party making the claim is imminently likely to endanger life or property; (ii) that, in the case of Transmission Provider, is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to the Transmission System, Transmission Provider's Interconnection Facilities or the Transmission Systems of others to which the Transmission System is directly connected; or (iii) that, in the case of Interconnection Customer, is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to, the Large Generating Facility or Interconnection Customer's Interconnection Facilities. System restoration and black start shall be considered Emergency Conditions; provided, that Interconnection Customer is not obligated by this LGIA to possess black start capability.

**13.2 Obligations.**

Each Party shall comply with the Emergency Condition procedures of the applicable ISO/RTO, NERC, the Applicable Reliability Council, Applicable Laws and Regulations, and any emergency procedures agreed to by the Joint Operating Committee.

### **13.3 Notice.**

Transmission Provider shall notify Interconnection Customer promptly when it becomes aware of an Emergency Condition that affects Transmission Provider's Interconnection Facilities or the Transmission System that may reasonably be expected to affect Interconnection Customer's operation of the Large Generating Facility or Interconnection Customer's Interconnection Facilities. Interconnection Customer shall notify Transmission Provider promptly when it becomes aware of an Emergency Condition that affects the Large Generating Facility or Interconnection Customer's Interconnection Facilities that may reasonably be expected to affect the Transmission System or Transmission Provider's Interconnection Facilities. To the extent information is known, the notification shall describe the Emergency Condition, the extent of the damage or deficiency, the expected effect on the operation of Interconnection Customer's or Transmission Provider's facilities and operations, its anticipated duration and the corrective action taken and/or to be taken. The initial notice shall be followed as soon as practicable with written notice.

### **13.4 Immediate Action.**

Unless, in Interconnection Customer's reasonable judgment, immediate action is required, Interconnection Customer shall obtain the consent of Transmission Provider, such consent to not be unreasonably withheld, prior to performing any manual switching operations at the Large Generating Facility or Interconnection Customer's Interconnection Facilities in response to an Emergency Condition either declared by Transmission Provider or otherwise regarding the Transmission System.

### **13.5 Transmission Provider Authority.**

#### **13.5.1 General.**

Transmission Provider may take whatever actions or inactions with regard to the Transmission System or Transmission Provider's Interconnection Facilities it deems necessary during an Emergency Condition in order to (i) preserve public health and safety, (ii) preserve the reliability of the Transmission System or Transmission Provider's Interconnection Facilities, (iii) limit or prevent damage, and (iv) expedite restoration of service.

Transmission Provider shall use Reasonable Efforts to minimize the effect of such actions or inactions on the Large Generating Facility or Interconnection Customer's Interconnection Facilities. Transmission Provider may, on the basis of technical considerations, require the Large Generating Facility to mitigate an Emergency Condition by taking actions necessary and limited in scope to remedy the Emergency Condition, including, but not limited to, directing Interconnection Customer to shut-down, start-up, increase or decrease the real or reactive power output of the Large Generating Facility; implementing a reduction or disconnection pursuant to Article 13.5.2; directing Interconnection Customer to assist with blackstart (if available) or

restoration efforts; or altering the outage schedules of the Large Generating Facility and Interconnection Customer's Interconnection Facilities. Interconnection Customer shall comply with all of Transmission Provider's operating instructions concerning Large Generating Facility real power and reactive power output within the manufacturer's design limitations of the Large Generating Facility's equipment that is in service and physically available for operation at the time, in compliance with Applicable Laws and Regulations.

**13.5.2 Reduction and Disconnection.**

Transmission Provider may reduce Interconnection Service or disconnect the Large Generating Facility or Interconnection Customer's Interconnection Facilities, when such, reduction or disconnection is necessary under Good Utility Practice due to Emergency Conditions. These rights are separate and distinct from any right of curtailment of Transmission Provider pursuant to Transmission Provider's Tariff. When Transmission Provider can schedule the reduction or disconnection in advance, Transmission Provider shall notify Interconnection Customer of the reasons, timing and expected duration of the reduction or disconnection. Transmission Provider shall coordinate with Interconnection Customer using Good Utility Practice to schedule the reduction or disconnection during periods of least impact to Interconnection Customer and Transmission Provider. Any reduction or disconnection shall continue only for so long as reasonably necessary under Good Utility Practice. The Parties shall cooperate with each other to restore the Large Generating Facility, the Interconnection Facilities, and the Transmission System to their normal operating state as soon as practicable consistent with Good Utility Practice.

**13.6 Interconnection Customer Authority.**

Consistent with Good Utility Practice and the LGIA and the Revised LGIP, Interconnection Customer may take actions or inactions with regard to the Large Generating Facility or Interconnection Customer's Interconnection Facilities during an Emergency Condition in order to (i) preserve public health and safety, (ii) preserve the reliability of the Large Generating Facility or Interconnection Customer's Interconnection Facilities, (iii) limit or prevent damage, and (iv) expedite restoration of service. Interconnection Customer shall use Reasonable Efforts to minimize the effect of such actions or inactions on the Transmission System and Transmission Provider's Interconnection Facilities. Transmission Provider shall use Reasonable Efforts to assist Interconnection Customer in such actions.

**13.7 Limited Liability.**

Except as otherwise provided in Article 11.6.1 of this LGIA, neither Party shall be liable to the other for any action it takes in responding to an Emergency Condition so long as such action is made in good faith and is consistent with Good Utility Practice.

**Article 14. Regulatory Requirements and Governing Law**

**14.1 Regulatory Requirements.**



Each Party's obligations under this LGIA shall be subject to its receipt of any required approval or certificate from one or more Governmental Authorities in the form and substance satisfactory to the applying Party, or the Party making any required filings with, or providing notice to, such Governmental Authorities, and the expiration of any time period associated therewith. Each Party shall in good faith seek and use its Reasonable Efforts to obtain such other approvals. Nothing in this LGIA shall require Interconnection Customer to take any action that could result in its inability to obtain, or its loss of, status or exemption under the Federal Power Act, the Public Utility Holding Company Act of 1935, as amended, or the Public Utility Regulatory Policies Act of 1978.

## **14.2 Governing Law.**

- 14.2.1** The validity, interpretation and performance of this LGIA and each of its provisions shall be governed by the laws of the state where the Point of Interconnection is located, without regard to its conflicts of law principles.
- 14.2.2** This LGIA is subject to all Applicable Laws and Regulations.
- 14.2.3** Each Party expressly reserves the right to seek changes in, appeal, or otherwise contest any laws, orders, rules, or regulations of a Governmental Authority.

## **Article 15. Notices**

### **15.1 General.**

Unless otherwise provided in this LGIA, any notice, demand or request required or permitted to be given by either Party to the other and any instrument required or permitted to be tendered or delivered by either Party in writing to the other shall be effective when delivered and may be so given, tendered or delivered, by recognized national courier, or by depositing the same with the United States Postal Service with postage prepaid, for delivery by certified or registered mail, addressed to the Party, or personally delivered to the Party, at the address set out in Appendix F, Addresses for Delivery of Notices and Billings.

Either Party may change the notice information in this LGIA by giving five (5) Business Days written notice prior to the effective date of the change.

### **15.2 Billings and Payments.**

Billings and payments shall be sent to the addresses set out in Appendix F.

### **15.3 Alternative Forms of Notice.**

Any notice or request required or permitted to be given by a Party to the other and not required by this Agreement to be given in writing may be so given by telephone, facsimile or email to the telephone numbers and email addresses set out in Appendix F.

### **15.4 Operations and Maintenance Notice.**

Each Party shall notify the other Party in writing of the identity of the person(s) that it designates as the point(s) of contact with respect to the implementation of Articles 9 and 10.

## **Article 16. Force Majeure**

### **16.1 Force Majeure.**

#### **16.1.1 Economic hardship is not considered a Force Majeure event.**

**16.1.2** Neither Party shall be considered to be in Default with respect to any obligation hereunder, (including obligations under Article 4), other than the obligation to pay money when due, if prevented from fulfilling such obligation by Force Majeure. A Party unable to fulfill any obligation hereunder (other than an obligation to pay money when due) by reason of Force Majeure shall give notice and the full particulars of such Force Majeure to the other Party in writing or by telephone as soon as reasonably possible after the occurrence of the cause relied upon. Telephone notices given pursuant to this article shall be confirmed in writing as soon as reasonably possible and shall specifically state full particulars of the Force Majeure, the time and date when the Force Majeure occurred and when the Force Majeure is reasonably expected to cease. The Party affected shall exercise due diligence to remove such disability with reasonable dispatch, but shall not be required to accede or agree to any provision not satisfactory to it in order to settle and terminate a strike or other labor disturbance.

## **Article 17. Default**

### **17.1 Default.**

#### **17.1.1 General.**

No Default shall exist where such failure to discharge an obligation (other than the payment of money) is the result of Force Majeure as defined in this LGIA or the result of an act of omission of the other Party. Upon a Breach, the non-breaching Party shall give written notice of such Breach to the breaching Party. Except as provided in Article 17.1.2, the breaching Party shall have thirty (30) Calendar Days from receipt of the Default notice within which to cure such Breach; provided however, if such Breach is not capable of cure within thirty (30) Calendar Days, the breaching Party shall commence such cure within thirty (30) Calendar Days after notice and continuously and diligently complete such cure within ninety (90) Calendar Days from receipt of the Default notice; and, if cured within such time, the Breach specified in such notice shall cease to exist.

#### **17.1.2 Right to Terminate.**

If a Breach is not cured as provided in this article, or if a Breach is not capable of being cured within the period provided for herein, the non-breaching Party shall have the right to declare a Default and terminate this



LGIA by written notice at any time until cure occurs, and be relieved of any further obligation hereunder and, whether or not that Party terminates this LGIA, to recover from the breaching Party all amounts due hereunder, plus all other damages and remedies to which it is entitled at law or in equity. The provisions of this article will survive termination of this LGIA.

## **Article 18. Indemnity, Consequential Damages and Insurance**

### **18.1 Indemnity.**

The Parties shall at all times indemnify, defend, and hold the other Party harmless from, any and all damages, losses, claims, including claims and actions relating to injury to or death of any person or damage to property, demand, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties, arising out of or resulting from the other Party's action or inactions of its obligations under this LGIA on behalf of the Indemnifying Party, except in cases of gross negligence or intentional wrongdoing by the Indemnified Party.

#### **18.1.1 Indemnified Person.**

If an Indemnified Person is entitled to indemnification under this Article 18 as a result of a claim by a third party, and the Indemnifying Party fails, after notice and reasonable opportunity to proceed under Article 18.1, to assume the defense of such claim, such Indemnified Person may at the expense of the Indemnifying Party contest, settle or consent to the entry of any judgment with respect to, or pay in full, such claim.

#### **18.1.2 Indemnifying Party.**

If an Indemnifying Party is obligated to indemnify and hold any Indemnified Person harmless under this Article 18, the amount owing to the Indemnified Person shall be the amount of such Indemnified Person's actual Loss, net of any insurance or other recovery.

#### **18.1.3 Indemnity Procedures.**

Promptly after receipt by an Indemnified Person of any claim or notice of the commencement of any action or administrative or legal proceeding or investigation as to which the indemnity provided for in Article 18.1 may apply, the Indemnified Person shall notify the Indemnifying Party of such fact. Any failure of or delay in such notification shall not affect a Party's indemnification obligation unless such failure or delay is materially prejudicial to the Indemnifying Party.

The Indemnifying Party shall have the right to assume the defense thereof with counsel designated by such Indemnifying Party and reasonably satisfactory to the Indemnified Person. If the defendants in any such action include one or more Indemnified Persons and the Indemnifying Party and if the Indemnified Person reasonably concludes that there may be legal defenses available to it and/or other Indemnified Persons which are different from or additional to those available to the Indemnifying Party, the Indemnified Person shall have the right to select separate counsel to assert

such legal defenses and to otherwise participate in the defense of such action on its own behalf. In such instances, the Indemnifying Party shall only be required to pay the fees and expenses of one additional attorney to represent an Indemnified Person or Indemnified Persons having such differing or additional legal defenses.

The Indemnified Person shall be entitled, at its expense, to participate in any such action, suit or proceeding, the defense of which has been assumed by the Indemnifying Party. Notwithstanding the foregoing, the Indemnifying Party (i) shall not be entitled to assume and control the defense of any such action, suit or proceedings if and to the extent that, in the opinion of the Indemnified Person and its counsel, such action, suit or proceeding involves the potential imposition of criminal liability on the Indemnified Person, or there exists a conflict or adversity of interest between the Indemnified Person and the Indemnifying Party, in such event the Indemnifying Party shall pay the reasonable expenses of the Indemnified Person, and (ii) shall not settle or consent to the entry of any judgment in any action, suit or proceeding without the consent of the Indemnified Person, which shall not be reasonably withheld, conditioned or delayed.

## **18.2 Consequential Damages.**

Other than the Liquidated Damages heretofore described, in no event shall either Party be liable under any provision of this LGIA for any losses, damages, costs or expenses for any special, indirect, incidental, consequential, or punitive damages, including but not limited to loss of profit or revenue, loss of the use of equipment, cost of capital, cost of temporary equipment or services, whether based in whole or in part in contract, in tort, including negligence, strict liability, or any other theory of liability; provided, however, that damages for which a Party may be liable to the other Party under another agreement will not be considered to be special, indirect, incidental, or consequential damages hereunder.

## **18.3 Insurance.**

Each party shall, at its own expense, maintain in force throughout the period of this LGIA, and until released by the other Party, the following minimum insurance coverages, with insurers authorized to do business in the state where the Point of Interconnection is located:

**18.3.1** Employers' Liability and Workers' Compensation Insurance providing statutory benefits in accordance with the laws and regulations of the state in which the Point of Interconnection is located.

**18.3.2** Commercial General Liability Insurance including premises and operations, personal injury, broad form property damage, broad form blanket contractual liability coverage (including coverage for the contractual indemnification) products and completed operations coverage, coverage for explosion, collapse and underground hazards, independent contractors coverage, coverage for pollution to the extent normally available and punitive damages to the extent normally available and a cross liability endorsement, with

minimum limits of One Million Dollars (\$1,000,000) per occurrence/One Million Dollars (\$1,000,000) aggregate combined single limit for personal injury, bodily injury, including death and property damage.

- 18.3.3** Comprehensive Automobile Liability Insurance for coverage of owned and non-owned and hired vehicles, trailers or semi-trailers designed for travel on public roads, with a minimum, combined single limit of One Million Dollars (\$1,000,000) per occurrence for bodily injury, including death, and property damage.
- 18.3.4** Excess Public Liability Insurance over and above the Employers' Liability Commercial General Liability and Comprehensive Automobile Liability Insurance coverage, with a minimum combined single limit of Twenty Million Dollars (\$20,000,000) per occurrence/Twenty Million Dollars (\$20,000,000) aggregate.
- 18.3.5** The Commercial General Liability Insurance, Comprehensive Automobile Insurance and Excess Public Liability Insurance policies shall name the other Party, its parent, associated and Affiliate companies and their respective directors, officers, agents, servants and employees ("Other Party Group") as additional insured. All policies shall contain provisions whereby the insurers waive all rights of subrogation in accordance with the provisions of this LGIA against the Other Party Group and provide thirty (30) Calendar Days advance written notice to the Other Party Group prior to anniversary date of cancellation or any material change in coverage or condition.
- 18.3.6** The Commercial General Liability Insurance, Comprehensive Automobile Liability Insurance and Excess Public Liability Insurance policies shall contain provisions that specify that the policies are primary and shall apply to such extent without consideration for other policies separately carried and shall state that each insured is provided coverage as though a separate policy had been issued to each, except the insurer's liability shall not be increased beyond the amount for which the insurer would have been liable had only one insured been covered. Each Party shall be responsible for its respective deductibles or retentions.
- 18.3.7** The Commercial General Liability Insurance, Comprehensive Automobile Liability Insurance and Excess Public Liability Insurance policies, if written on a Claims First Made Basis, shall be maintained in full force and effect for two (2) years after termination of this LGIA, which coverage may be in the form of tail coverage or extended reporting period coverage if agreed by the Parties.
- 18.3.8** The requirements contained herein as to the types and limits of all insurance to be maintained by the Parties are not intended to and shall not in any manner, limit or qualify the liabilities and obligations assumed by the Parties under this LGIA.

- 18.3.9** Within ten (10) Calendar Days following execution of this LGIA, and as soon as practicable after the end of each fiscal year or at the renewal of the insurance policy and in any event within ninety (90) Calendar Days thereafter, each Party shall provide certification of all insurance required in this LGIA, executed by each insurer or by an authorized representative of each insurer.
- 18.3.10** In addition to the foregoing, each Party may self-insure to meet the minimum insurance requirements of Articles 18.3.2 through 18.3.8 to the extent it maintains a self-insurance program; provided that, such Party's self-insurance program meets the minimum insurance requirements of Articles 18.3.2 through 18.3.8. In the event that a Party is permitted to self-insure pursuant to this article, it shall certify to the other Party with a letter of self-insurance that it meets the requirements to self-insure and that its self-insurance program meets the minimum insurance requirements in a manner consistent with that specified in Article 18.3.9.
- 18.3.11** The Parties agree to report to each other in writing as soon as practical all accidents or occurrences resulting in injuries to any person, including death, and any property damage arising out of this LGIA.

## **Article 19. Assignment**

### **19.1 Assignment.**

This LGIA may be assigned by either Party only with the written consent of the other; provided that either Party may assign this LGIA without the consent of the other Party to any Affiliate of the assigning Party with an equal or greater credit rating and with the legal authority and operational ability to satisfy the obligations of the assigning Party under this LGIA; and provided further that Interconnection Customer shall have the right to assign this LGIA, without the consent of Transmission Provider, for collateral security purposes to aid in providing financing for the Large Generating Facility, provided that Interconnection Customer will promptly notify Transmission Provider of any such assignment. Any financing arrangement entered into by Interconnection Customer pursuant to this article will provide that prior to or upon the exercise of the secured party's, trustee's or mortgagee's assignment rights pursuant to said arrangement, the secured creditor, the trustee or mortgagee will notify Transmission Provider of the date and particulars of any such exercise of assignment right(s), including providing the Transmission Provider with proof that it meets the requirements of Articles 11.5 and 18.3. Any attempted assignment that violates this article is void and ineffective. Any assignment under this LGIA shall not relieve a Party of its obligations, nor shall a Party's obligations be enlarged, in whole or in part, by reason thereof. Where required, consent to assignment will not be unreasonably withheld, conditioned or delayed.

## **Article 20. Severability**

- 20.1 Severability.** If any provision in this LGIA is finally determined to be invalid, void or unenforceable by any court or other Governmental Authority having jurisdiction, such determination shall not invalidate, void or make unenforceable any other provision, agreement or covenant of this LGIA; provided that if Interconnection Customer (or any

third party, but only if such third party is not acting at the direction of Transmission Provider) seeks and obtains such a final determination with respect to any provision of the Alternate Option (Article 5.1.2), or the Negotiated Option (Article 5.1.4), then none of these provisions shall thereafter have any force or effect and the Parties' rights and obligations shall be governed solely by the Standard Option (Article 5.1.1)

## **Article 21. Comparability**

### **21.1 Comparability.**

The Parties will comply with all applicable comparability and code of conduct laws, rules and regulations, as amended from time to time.

## **Article 22. Confidentiality**

### **22.1 Confidentiality.**

Confidential Information shall include, without limitation, all information relating to a Party's technology, research and development, business affairs, and pricing, and any information supplied by either of the Parties to the other prior to the execution of this LGIA.

Information is Confidential Information only if it is clearly designated or marked in writing as confidential on the face of the document, or, if the information is conveyed orally or by inspection, if the Party providing the information orally informs the Party receiving the information that the information is confidential.

If requested by either Party, the other Party shall provide in writing, the basis for asserting that the information referred to in this Article 22 warrants confidential treatment, and the requesting Party may disclose such writing to the appropriate Governmental Authority. Each Party shall be responsible for the costs associated with affording confidential treatment to its information.

#### **22.1.1 Term.**

During the term of this LGIA, and for a period of three (3) years after the expiration or termination of this LGIA, except as otherwise provided in this Article 22, each Party shall hold in confidence and shall not disclose to any person Confidential Information.

#### **22.1.2 Scope.**

Confidential Information shall not include information that the receiving Party can demonstrate: (1) is generally available to the public other than as a result of a disclosure by the receiving Party; (2) was in the lawful possession of the receiving Party on a non-confidential basis before receiving it from the disclosing Party; (3) was supplied to the receiving Party without restriction by a third party, who, to the knowledge of the receiving Party after due inquiry, was under no obligation to the disclosing Party to keep such information confidential; (4) was independently developed by the receiving Party without reference to Confidential Information of the disclosing Party; (5) is, or becomes, publicly known, through no wrongful act or omission of the

receiving Party or Breach of this LGIA; or (6) is required, in accordance with Article 22.1.7 of the LGIA, Order of Disclosure, to be disclosed by any Governmental Authority or is otherwise required to be disclosed by law or subpoena, or is necessary in any legal proceeding establishing rights and obligations under this LGIA. Information designated as Confidential Information will no longer be deemed confidential if the Party that designated the information as confidential notifies the other Party that it no longer is confidential.

**22.1.3 Release of Confidential Information.**

Neither Party shall release or disclose Confidential Information to any other person, except to its Affiliates (limited by the Standards of Conduct requirements), subcontractors, employees, consultants, or to parties who may be or considering providing financing to or equity participation with Interconnection Customer, or to potential purchasers or assignees of Interconnection Customer, on a need-to-know basis in connection with this LGIA, unless such person has first been advised of the confidentiality provisions of this Article 22 and has agreed to comply with such provisions. Notwithstanding the foregoing, a Party providing Confidential Information to any person shall remain primarily responsible for any release of Confidential Information in contravention of this Article 22.

**22.1.4 Rights.**

Each Party retains all rights, title, and interest in the Confidential Information that each Party discloses to the other Party. The disclosure by each Party to the other Party of Confidential Information shall not be deemed a waiver by either Party or any other person or entity of the right to protect the Confidential Information from public disclosure.

**22.1.5 No Warranties.**

By providing Confidential Information, neither Party makes any warranties or representations as to its accuracy or completeness. In addition, by supplying Confidential Information, neither Party obligates itself to provide any particular information or Confidential Information to the other Party nor to enter into any further agreements or proceed with any other relationship or joint venture.

**22.1.6 Standard of Care.**

Each Party shall use at least the same standard of care to protect Confidential Information it receives as it uses to protect its own Confidential Information from unauthorized disclosure, publication or dissemination. Each Party may use Confidential Information solely to fulfill its obligations to the other Party under this LGIA or its regulatory requirements.

**22.1.7 Order of Disclosure.**

If a court or a Government Authority or entity with the right, power, and apparent authority to do so requests or requires either Party, by subpoena, oral deposition, interrogatories, requests for production of documents, administrative order, or otherwise, to disclose Confidential Information, that



Party shall provide the other Party with prompt notice of such request(s) or requirement(s) so that the other Party may seek an appropriate protective order or waive compliance with the terms of this LGIA. Notwithstanding the absence of a protective order or waiver, the Party may disclose such Confidential Information which, in the opinion of its counsel, the Party is legally compelled to disclose. Each Party will use Reasonable Efforts to obtain reliable assurance that confidential treatment will be accorded any Confidential Information so furnished.

**22.1.8 Termination of Agreement.**

Upon termination of this LGIA for any reason, each Party shall, within ten (10) Calendar Days of receipt of a written request from the other Party, use Reasonable Efforts to destroy, erase, or delete (with such destruction, erasure, and deletion certified in writing to the other Party) or return to the other Party, without retaining copies thereof, any and all written or electronic Confidential Information received from the other Party.

**22.1.9 Remedies.**

The Parties agree that monetary damages would be inadequate to compensate a Party for the other Party's Breach of its obligations under this Article 22. Each Party accordingly agrees that the other Party shall be entitled to equitable relief, by way of injunction or otherwise, if the first Party Breaches or threatens to Breach its obligations under this Article 22, which equitable relief shall be granted without bond or proof of damages, and the receiving Party shall not plead in defense that there would be an adequate remedy at law. Such remedy shall not be deemed an exclusive remedy for the Breach of this Article 22, but shall be in addition to all other remedies available at law or in equity. The Parties further acknowledge and agree that the covenants contained herein are necessary for the protection of legitimate business interests and are reasonable in scope. No Party, however, shall be liable for indirect, incidental, or consequential or punitive damages of any nature or kind resulting from or arising in connection with this Article 22.

**22.1.10 Disclosure to FERC, its Staff, or a State.**

Notwithstanding anything in this Article 22 to the contrary, and pursuant to 18 CFR section 1b.20, if FERC or its staff, during the course of an investigation or otherwise, requests information from one of the Parties that is otherwise required to be maintained in confidence pursuant to this LGIA, the Party shall provide the requested information to FERC or its staff, within the time provided for in the request for information. In providing the information to FERC or its staff, the Party must, consistent with 18 CFR section 388.112, request that the information be treated as confidential and non-public by FERC and its staff and that the information be withheld from public disclosure. Parties are prohibited from notifying the other Party to this LGIA prior to the release of the Confidential Information to FERC or its staff. The Party shall notify the other Party to the LGIA when it is notified by FERC or its staff that a request to release Confidential Information has been received by FERC, at which time either of the Parties may respond before such

information would be made public, pursuant to 18 CFR section 388.112. Requests from a state regulatory body conducting a confidential investigation shall be treated in a similar manner if consistent with the applicable state rules and regulations.

- 22.1.11** Subject to the exception in Article 22.1.10, any information that a Party claims is competitively sensitive, commercial or financial information under this LGIA (“Confidential Information”) shall not be disclosed by the other Party to any person not employed or retained by the other Party, except to the extent disclosure is (i) required by law; (ii) reasonably deemed by the disclosing Party to be required to be disclosed in connection with a dispute between or among the Parties, or the defense of litigation or dispute; (iii) otherwise permitted by consent of the other Party, such consent not to be unreasonably withheld; or (iv) necessary to fulfill its obligations under this LGIA or as a transmission service provider or a Control Area operator including disclosing the Confidential Information to an RTO or ISO or to a regional or national reliability organization. The Party asserting confidentiality shall notify the other Party in writing of the information it claims is confidential. Prior to any disclosures of the other Party's Confidential Information under this subparagraph, or if any third party or Governmental Authority makes any request or demand for any of the information described in this subparagraph, the disclosing Party agrees to promptly notify the other Party in writing and agrees to assert confidentiality and cooperate with the other Party in seeking to protect the Confidential Information from public disclosure by confidentiality agreement, protective order or other reasonable measures.

## **Article 23. Environmental Releases**

- 23.1** Each Party shall notify the other Party, first orally and then in writing, of the release of any Hazardous Substances, any asbestos or lead abatement activities, or any type of remediation activities related to the Large Generating Facility or the Interconnection Facilities, each of which may reasonably be expected to affect the other Party. The notifying Party shall: (i) provide the notice as soon as practicable, provided such Party makes a good faith effort to provide the notice no later than twenty-four hours after such Party becomes aware of the occurrence; and (ii) promptly furnish to the other Party copies of any publicly available reports filed with any Governmental Authorities addressing such events.

## **Article 24. Information Requirements**

### **24.1 Information Acquisition.**

Transmission Provider and Interconnection Customer shall submit specific information regarding the electrical characteristics of their respective facilities to each other as described below and in accordance with Applicable Reliability Standards.

### **24.2 Information Submission by Transmission Provider.**

The initial information submission by Transmission Provider shall occur no later than one hundred eighty (180) Calendar Days prior to Trial Operation and shall include



Transmission System information necessary to allow Interconnection Customer to select equipment and meet any system protection and stability requirements, unless otherwise agreed to by the Parties. On a monthly basis Transmission Provider shall provide Interconnection Customer a status report on the construction and installation of Transmission Provider's Interconnection Facilities and Network Upgrades, including, but not limited to, the following information: (1) progress to date; (2) a description of the activities since the last report (3) a description of the action items for the next period; and (4) the delivery status of equipment ordered.

#### **24.3 Updated Information Submission by Interconnection Customer.**

The updated information submission by Interconnection Customer, including manufacturer information, shall occur no later than one-hundred eighty (180) Calendar Days prior to the Trial Operation. Interconnection Customer shall submit a completed copy of the Large Generating Facility data requirements contained in Appendix 1 to the Revised LGIP. It shall also include any additional information provided to Transmission Provider for the Definitive Interconnection System Impact Study and Interconnection Facilities Study. Information in this submission shall be the most current Large Generating Facility design or expected performance data. Information submitted for stability models shall be compatible with Transmission Provider standard models. If there is no compatible model, Interconnection Customer will work with a consultant mutually agreed to by the Parties to develop and supply a standard model and associated information.

If Interconnection Customer's data is materially different from what was originally provided to Transmission Provider pursuant to the Interconnection Study Agreement between Transmission Provider and Interconnection Customer, then Transmission Provider will conduct appropriate studies to determine the impact on Transmission Provider Transmission System based on the actual data submitted pursuant to this Article 24.3. The Interconnection Customer shall not begin Trial Operation until such studies are completed.

#### **24.4 Information Supplementation.**

Prior to the Operation Date, the Parties shall supplement their information submissions described above in this Article 24 with any and all "as-built" Large Generating Facility information or "as-tested" performance information that differs from the initial submissions or, alternatively, written confirmation that no such differences exist. The Interconnection Customer shall conduct tests on the Large Generating Facility as required by Good Utility Practice such as an open circuit "step voltage" test on the Large Generating Facility to verify proper operation of the Large Generating Facility's automatic voltage regulator.

Unless otherwise agreed, the test conditions shall include: (1) Large Generating Facility at synchronous speed; (2) automatic voltage regulator on and in voltage control mode; and (3) a five percent change in Large Generating Facility terminal voltage initiated by a change in the voltage regulators reference voltage. Interconnection Customer shall provide validated test recordings showing the responses of Large Generating Facility terminal and field voltages. In the event that direct recordings of these voltages is impractical, recordings of other voltages or currents that mirror the response of the Large

Generating Facility's terminal or field voltage are acceptable if information necessary to translate these alternate quantities to actual Large Generating Facility terminal or field voltages is provided. Large Generating Facility testing shall be conducted and results provided to Transmission Provider for each individual generating unit in a station.

Subsequent to the Operation Date, Interconnection Customer shall provide Transmission Provider any information changes due to equipment replacement, repair, or adjustment. Transmission Provider shall provide Interconnection Customer any information changes due to equipment replacement, repair or adjustment in the directly connected substation or any adjacent Transmission Provider-owned substation that may affect Interconnection Customer's Interconnection Facilities equipment ratings, protection or operating requirements. The Parties shall provide such information no later than thirty (30) Calendar Days after the date of the equipment replacement, repair or adjustment.

## **Article 25. Information Access and Audit Rights**

### **25.1 Information Access.**

Each Party (the "disclosing Party") shall make available to the other Party information that is in the possession of the disclosing Party and is necessary in order for the other Party to: (i) verify the costs incurred by the disclosing Party for which the other Party is responsible under this LGIA; and (ii) carry out its obligations and responsibilities under this LGIA. The Parties shall not use such information for purposes other than those set forth in this Article 25.1 and to enforce their rights under this LGIA.

### **25.2 Reporting of Non-Force Majeure Events.**

Each Party (the "notifying Party") shall notify the other Party when the notifying Party becomes aware of its inability to comply with the provisions of this LGIA for a reason other than a Force Majeure event. The Parties agree to cooperate with each other and provide necessary information regarding such inability to comply, including the date, duration, reason for the inability to comply, and corrective actions taken or planned to be taken with respect to such inability to comply. Notwithstanding the foregoing, notification, cooperation or information provided under this article shall not entitle the Party receiving such notification to allege a cause for anticipatory breach of this LGIA.

### **25.3 Audit Rights.**

Subject to the requirements of confidentiality under Article 22 of this LGIA, each Party shall have the right, during normal business hours, and upon prior reasonable notice to the other Party, to audit at its own expense the other Party's accounts and records pertaining to either Party's performance or either Party's satisfaction of obligations under this LGIA. Such audit rights shall include audits of the other Party's costs, calculation of invoiced amounts, Transmission Provider's efforts to allocate responsibility for the provision of reactive support to the Transmission System, Transmission Provider's efforts to allocate responsibility for interruption or reduction of generation on the Transmission System, and each Party's actions in an Emergency Condition. Any audit authorized by this article shall be performed at the offices where such accounts and records are maintained and shall be limited to those portions of such accounts and records that relate to each Party's performance and satisfaction of obligations under this

LGIA. Each Party shall keep such accounts and records for a period equivalent to the audit rights periods described in Article 25.4.

## **25.4 Audit Rights Periods.**

### **25.4.1 Audit Rights Period for Construction-Related Accounts and Records.**

Accounts and records related to the design, engineering, procurement, and construction of Transmission Provider's Interconnection Facilities and Network Upgrades shall be subject to audit for a period of twenty-four months following Transmission Provider's issuance of a final invoice in accordance with Article 12.2.

### **25.4.2 Audit Rights Period for All Other Accounts and Records.**

Accounts and records related to either Party's performance or satisfaction of all obligations under this LGIA other than those described in Article 25.4.1 shall be subject to audit as follows: (i) for an audit relating to cost obligations, the applicable audit rights period shall be twenty-four months after the auditing Party's receipt of an invoice giving rise to such cost obligations; and (ii) for an audit relating to all other obligations, the applicable audit rights period shall be twenty-four months after the event for which the audit is sought.

## **25.5 Audit Results.**

If an audit by a Party determines that an overpayment or an underpayment has occurred, a notice of such overpayment or underpayment shall be given to the other Party together with those records from the audit which support such determination.

## **Article 26. Subcontractors**

### **26.1 General.**

Nothing in this LGIA shall prevent a Party from utilizing the services of any subcontractor as it deems appropriate to perform its obligations under this LGIA; provided, however, that each Party shall require its subcontractors to comply with all applicable terms and conditions of this LGIA in providing such services and each Party shall remain primarily liable to the other Party for the performance of such subcontractor.

### **26.2 Responsibility of Principal.**

The creation of any subcontract relationship shall not relieve the hiring Party of any of its obligations under this LGIA. The hiring Party shall be fully responsible to the other Party for the acts or omissions of any subcontractor the hiring Party hires as if no subcontract had been made; provided, however, that in no event shall Transmission Provider be liable for the actions or inactions of Interconnection Customer or its subcontractors with respect to obligations of Interconnection Customer under Article 5 of this LGIA. Any applicable obligation imposed by this LGIA upon the hiring Party shall be equally binding upon, and shall be construed as having application to, any subcontractor of such Party.

### **26.3 No Limitation by Insurance.**

The obligations under this Article 26 will not be limited in any way by any limitation of subcontractor's insurance.

## **Article 27. Disputes**

### **27.1 Submission.**

In the event either Party has a dispute, or asserts a claim, that arises out of or in connection with this LGIA or its performance, such Party (the "disputing Party") shall provide the other Party with written notice of the dispute or claim ("Notice of Dispute"). Such dispute or claim shall be referred to a designated senior representative of each Party for resolution on an informal basis as promptly as practicable after receipt of the Notice of Dispute by the other Party. In the event the designated representatives are unable to resolve the claim or dispute through unassisted or assisted negotiations within thirty (30) Calendar Days of the other Party's receipt of the Notice of Dispute, such claim or dispute may, upon mutual agreement of the Parties, be submitted to arbitration and resolved in accordance with the arbitration procedures set forth below. In the event the Parties do not agree to submit such claim or dispute to arbitration, each Party may exercise whatever rights and remedies it may have in equity or at law consistent with the terms of this LGIA.

### **27.2 External Arbitration Procedures.**

Any arbitration initiated under this LGIA shall be conducted before a single neutral arbitrator appointed by the Parties. If the Parties fail to agree upon a single arbitrator within ten (10) Calendar Days of the submission of the dispute to arbitration, each Party shall choose one arbitrator who shall sit on a three-member arbitration panel. The two arbitrators so chosen shall within twenty (20) Calendar Days select a third arbitrator to chair the arbitration panel. In either case, the arbitrators shall be knowledgeable in electric utility matters, including electric transmission and bulk power issues, and shall not have any current or past substantial business or financial relationships with any party to the arbitration (except prior arbitration). The arbitrator(s) shall provide each of the Parties an opportunity to be heard and, except as otherwise provided herein, shall conduct the arbitration in accordance with the Commercial Arbitration Rules of the American Arbitration Association ("Arbitration Rules") and any applicable FERC regulations or RTO rules; provided, however, in the event of a conflict between the Arbitration Rules and the terms of this Article 27, the terms of this Article 27 shall prevail.

### **27.3 Arbitration Decisions.**

Unless otherwise agreed by the Parties, the arbitrator(s) shall render a decision within ninety (90) Calendar Days of appointment and shall notify the Parties in writing of such decision and the reasons therefor. The arbitrator(s) shall be authorized only to interpret and apply the provisions of this LGIA and shall have no power to modify or change any provision of this Agreement in any manner. The decision of the arbitrator(s) shall be final and binding upon the Parties, and judgment on the award may be entered in any court having jurisdiction. The decision of the arbitrator(s) may be appealed solely on the grounds that the conduct of the arbitrator(s), or the decision itself, violated the standards set forth in the Federal Arbitration Act or the Administrative Dispute Resolution Act. The final decision of the arbitrator must also be filed with FERC if it affects jurisdictional rates, terms and conditions of service, Interconnection Facilities, or Network Upgrades.

**27.4 Costs.**

Each Party shall be responsible for its own costs incurred during the arbitration process and for the following costs, if applicable: (1) the cost of the arbitrator chosen by the Party to sit on the three member panel and one half of the cost of the third arbitrator chosen; or (2) one-half the cost of the single arbitrator jointly chosen by the Parties.

**Article 28. Representations, Warranties, and Covenants**

**28.1 General.**

Each Party makes the following representations, warranties and covenants:

**28.1.1 Good Standing.**

Such Party is duly organized, validly existing and in good standing under the laws of the state in which it is organized, formed, or incorporated, as applicable; that it is qualified to do business in the state or states in which the Large Generating Facility, Interconnection Facilities and Network Upgrades owned by such Party, as applicable, are located; and that it has the corporate power and authority to own its properties, to carry on its business as now being conducted and to enter into this LGIA and carry out the transactions contemplated hereby and perform and carry out all covenants and obligations on its part to be performed under and pursuant to this LGIA.

**28.1.2 Authority.**

Such Party has the right, power and authority to enter into this LGIA, to become a Party hereto and to perform its obligations hereunder. This LGIA is a legal, valid and binding obligation of such Party, enforceable against such Party in accordance with its terms, except as the enforceability thereof may be limited by applicable bankruptcy, insolvency, reorganization or other similar laws affecting creditors' rights generally and by general equitable principles (regardless of whether enforceability is sought in a proceeding in equity or at law).

**28.1.3 No Conflict.**

The execution, delivery and performance of this LGIA does not violate or conflict with the organizational or formation documents, or bylaws or operating agreement, of such Party, or any judgment, license, permit, order, material agreement or instrument applicable to or binding upon such Party or any of its assets.

**28.1.4 Consent and Approval.**

Such Party has sought or obtained, or, in accordance with this LGIA will seek or obtain, each consent, approval, authorization, order, or acceptance by any Governmental Authority in connection with the execution, delivery and performance of this LGIA, and it will provide to any Governmental Authority notice of any actions under this LGIA that are required by Applicable Laws and Regulations

## **Article 29. Joint Operating Committee**

### **29.1 Joint Operating Committee.**

Except in the case of ISOs and RTOs, Transmission Provider shall constitute a Joint Operating Committee to coordinate operating and technical considerations of Interconnection Service. At least six (6) months prior to the expected Initial Synchronization Date, Interconnection Customer and Transmission Provider shall each appoint one representative and one alternate to the Joint Operating Committee. Each Interconnection Customer shall notify Transmission Provider of its appointment in writing. Such appointments may be changed at any time by similar notice. The Joint Operating Committee shall meet as necessary, but not less than once each calendar year, to carry out the duties set forth herein. The Joint Operating Committee shall hold a meeting at the request of either Party, at a time and place agreed upon by the representatives. The Joint Operating Committee shall perform all of its duties consistent with the provisions of this LGIA. Each Party shall cooperate in providing to the Joint Operating Committee all information required in the performance of the Joint Operating Committee's duties. All decisions and agreements, if any, made by the Joint Operating Committee, shall be evidenced in writing. The duties of the Joint Operating Committee shall include the following:

- 29.1.1** Establish data requirements and operating record requirements.
- 29.1.2** Review the requirements, standards, and procedures for data acquisition equipment, protective equipment, and any other equipment or software.
- 29.1.3** Annually review the one (1) year forecast of maintenance and planned outage schedules of Transmission Provider's and Interconnection Customer's facilities at the Point of Interconnection.
- 29.1.4** Coordinate the scheduling of maintenance and planned outages on the Interconnection Facilities, the Large Generating Facility and other facilities that impact the normal operation of the interconnection of the Large Generating Facility to the Transmission System.
- 29.1.5** Ensure that information is being provided by each Party regarding equipment availability.
- 29.1.6** Perform such other duties as may be conferred upon it by mutual agreement of the Parties.

## **Article 30. Miscellaneous**

### **30.1 Binding Effect.**

This LGIA and the rights and obligations hereof, shall be binding upon and shall inure to the benefit of the successors and assigns of the Parties hereto.

### **30.2 Conflicts.**



In the event of a conflict between the body of this LGIA and any attachment, appendices or exhibits hereto, the terms and provisions of the body of this LGIA shall prevail and be deemed the final intent of the Parties.

### **30.3 Rules of Interpretation.**

This LGIA, unless a clear contrary intention appears, shall be construed and interpreted as follows: (1) the singular number includes the plural number and vice versa; (2) reference to any person includes such person's successors and assigns but, in the case of a Party, only if such successors and assigns are permitted by this LGIA, and reference to a person in a particular capacity excludes such person in any other capacity or individually; (3) reference to any agreement (including this LGIA), document, instrument or tariff means such agreement, document, instrument, or tariff as amended or modified and in effect from time to time in accordance with the terms thereof and, if applicable, the terms hereof; (4) reference to any Applicable Laws and Regulations means such Applicable Laws and Regulations as amended, modified, codified, or reenacted, in whole or in part, and in effect from time to time, including, if applicable, rules and regulations promulgated thereunder; (5) unless expressly stated otherwise, reference to any Article, Section or Appendix means such Article of this LGIA or such Appendix to this LGIA, or such Section to the Revised LGIP or such Appendix to the Revised LGIP, as the case may be; (6) "hereunder", "hereof", "herein", "hereto" and words of similar import shall be deemed references to this LGIA as a whole and not to any particular Article or other provision hereof or thereof; (7) "including" (and with correlative meaning "include") means including without limiting the generality of any description preceding such term; and (8) relative to the determination of any period of time, "from" means "from and including", "to" means "to but excluding" and "through" means "through and including".

### **30.4 Entire Agreement.**

This LGIA, including all Appendices and Schedules attached hereto, constitutes the entire agreement between the Parties with reference to the subject matter hereof, and supersedes all prior and contemporaneous understandings or agreements, oral or written, between the Parties with respect to the subject matter of this LGIA. There are no other agreements, representations, warranties, or covenants which constitute any part of the consideration for, or any condition to, either Party's compliance with its obligations under this LGIA.

### **30.5 No Third Party Beneficiaries.**

This LGIA is not intended to and does not create rights, remedies, or benefits of any character whatsoever in favor of any persons, corporations, associations, or entities other than the Parties, and the obligations herein assumed are solely for the use and benefit of the Parties, their successors in interest and, where permitted, their assigns.

### **30.6 Waiver.**

The failure of a Party to this LGIA to insist, on any occasion, upon strict performance of any provision of this LGIA will not be considered a waiver of any obligation, right, or duty of, or imposed upon, such Party.

Any waiver at any time by either Party of its rights with respect to this LGIA shall not be deemed a continuing waiver or a waiver with respect to any other failure to comply with any other obligation, right, duty of this LGIA. Termination or Default of this LGIA for any reason by Interconnection Customer shall not constitute a waiver of Interconnection Customer's legal rights to obtain an interconnection from Transmission Provider. Any waiver of this LGIA shall, if requested, be provided in writing.

**30.7 Headings.**

The descriptive headings of the various Articles of this LGIA have been inserted for convenience of reference only and are of no significance in the interpretation or construction of this LGIA.

**30.8 Multiple Counterparts.**

This LGIA may be executed in two or more counterparts, each of which is deemed an original but all constitute one and the same instrument.

**30.9 Amendment.**

The Parties may by mutual agreement amend this LGIA by a written instrument duly executed by the Parties.

**30.10 Modification by the Parties.**

The Parties may by mutual agreement amend the Appendices to this LGIA by a written instrument duly executed by the Parties. Such amendment shall become effective and a part of this LGIA upon satisfaction of all Applicable Laws and Regulations.

**30.11 Reservation of Rights.**

Transmission Provider shall have the right to make a unilateral filing with FERC to modify this LGIA with respect to any rates, terms and conditions, charges, classifications of service, rule or regulation under section 205 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder, and Interconnection Customer shall have the right to make a unilateral filing with FERC to modify this LGIA pursuant to section 206 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder; provided that each Party shall have the right to protest any such filing by the other Party and to participate fully in any proceeding before FERC in which such modifications may be considered. Nothing in this LGIA shall limit the rights of the Parties or of FERC under sections 205 or 206 of the Federal Power Act and FERC's rules and regulations thereunder, except to the extent that the Parties otherwise mutually agree as provided herein.

**30.12 No Partnership.**

This LGIA shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership between the Parties or to impose any partnership obligation or partnership liability upon either Party. Neither Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, the other Party.

**IN WITNESS WHEREOF**, the Parties have executed this LGIA in duplicate originals, each of which shall constitute and be an original effective Agreement between the Parties.



**[Insert name of Transmission Provider or Transmission Owner, if applicable]**

By: \_\_\_\_\_ By: \_\_\_\_\_

Title: \_\_\_\_\_ Title: \_\_\_\_\_

Date: \_\_\_\_\_ Date: \_\_\_\_\_

**[Insert name of Interconnection Customer]**

By: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

## **Appendix A to LGIA**

### **Interconnection Facilities, Network Upgrades and Distribution Upgrades**

#### **1. Interconnection Facilities:**

**(a) [insert Interconnection Customer's Interconnection Facilities]:**

**(b) [insert Transmission Provider's Interconnection Facilities]:**

#### **2. Network Upgrades:**

**(a) [insert Stand Alone Network Upgrades]:**

**(b) [insert Other Network Upgrades]:**

#### **3. Distribution Upgrades:**

## **Appendix B to LGIA**

### **LGIA Milestones**

## **Appendix C to LGIA**

### **Interconnection Details**

## **Appendix D to LGIA**

### **Security Arrangements Details**

Infrastructure security of Transmission System equipment and operations and control hardware and software is essential to ensure day-to-day Transmission System reliability and operational security. FERC will expect all Transmission Providers, market participants, and Interconnection Customers interconnected to the Transmission System to comply with the recommendations offered by the President's Critical Infrastructure Protection Board and, eventually, best practice recommendations from the electric reliability authority. All public utilities will be expected to meet basic standards for system infrastructure and operational security, including physical, operational, and cyber-security practices.

**Appendix E to LGIA**  
**Commercial Operation Date**

This Appendix E is a part of the LGIA between Transmission Provider and Interconnection Customer.

**[Date]**

**[Transmission Provider Address]**

Re: \_\_\_\_\_ Large Generating Facility

Dear: \_\_\_\_\_

On **[Date]** **[Interconnection Customer]** has completed Trial Operation of Unit No. \_\_\_\_\_. This letter confirms that **[Interconnection Customer]** commenced Commercial Operation of Unit No. \_\_\_\_\_ at the Large Generating Facility, effective as of **[Date plus one day]**.

Thank you.

**[Signature]**

**[Interconnection Customer Representative]**

## Appendix F to LGIA

### Addresses for Delivery of Notices and Billings

#### Notices:.

Transmission Provider:

[To be supplied.]

Interconnection Customer:

[To be supplied.]

#### Billings and Payments:

Transmission Provider:

[To be supplied.]

Interconnection Customer:

[To be supplied.]

#### Alternative Forms of Delivery of Notices (telephone, facsimile or email):

Transmission Provider:

[To be supplied.]

Interconnection Customer:

[To be supplied.]

## APPENDIX G

### INTERCONNECTION REQUIREMENTS FOR A WIND GENERATING PLANT

Appendix G sets forth requirements and provisions specific to a wind generating plant. All other requirements of this LGIA continue to apply to wind generating plant interconnections.

#### A. Technical Standards Applicable to a Wind Generating Plant

##### i. Low Voltage Ride-Through (LVRT) Capability

A wind generating plant shall be able to remain online during voltage disturbances up to the time periods and associated voltage levels set forth in the standard below. The LVRT standard provides for a transition period standard and a post-transition period standard.

##### Transition Period LVRT Standard

The transition period standard applies to wind generating plants subject to FERC Order 661 that have either: (i) interconnection agreements signed and filed with the Commission, filed with the Commission in unexecuted form, or filed with the Commission as non-conforming agreements between January 1, 2006 and December 31, 2006, with a scheduled in-service date no later than December 31, 2007, or (ii) wind generating turbines subject to a wind turbine procurement contract executed prior to December 31, 2005, for delivery through 2007.

1. Wind generating plants are required to remain in-service during three-phase faults with normal clearing (which is a time period of approximately 4 – 9 cycles) and single line to ground faults with delayed clearing, and subsequent post-fault voltage recovery to prefault voltage unless clearing the fault effectively disconnects the generator from the system. The clearing time requirement for a three-phase fault will be specific to the wind generating plant substation location, as determined by and documented by Transmission Provider. The maximum clearing time the wind generating plant shall be required to withstand for a three-phase fault shall be 9 cycles at a voltage as low as 0.15 p.u., as measured at the high side of the wind generating plant step-up transformer (i.e. the transformer that steps the voltage up to the transmission interconnection voltage or “GSU”), after which, if the fault remains following the location-specific normal clearing time for three-phase faults, the wind generating plant may disconnect from the transmission system.
2. This requirement does not apply to faults that would occur between the wind generator terminals and the high side of the GSU or to faults that would result in a voltage lower than 0.15 per unit on the high side of the GSU serving the facility.
3. Wind generating plants may be tripped after the fault period if this action is intended as part of a special protection system.
4. Wind generating plants may meet the LVRT requirements of this standard by the performance of the generators or by installing additional equipment (e.g., Static VAR Compensator, etc.) within the wind generating plant or by a combination of generator performance and additional equipment.



5. Existing individual generator units that are, or have been, interconnected to the network at the same location at the effective date of the Appendix G LVRT Standard are exempt from meeting the Appendix G LVRT Standard for the remaining life of the existing generation equipment. Existing individual generator units that are replaced are required to meet the Appendix G LVRT Standard.

#### **Post-transition Period LVRT Standard**

All wind generating plants subject to FERC Order No. 661 and not covered by the transition period described above must meet the following requirements:

1. Wind generating plants are required to remain in-service during three-phase faults with normal clearing (which is a time period of approximately 4 – 9 cycles) and single line to ground faults with delayed clearing, and subsequent post-fault voltage recovery to prefault voltage unless clearing the fault effectively disconnects the generator from the system. The clearing time requirement for a three-phase fault will be specific to the wind generating plant substation location, as determined by and documented by Transmission Provider. The maximum clearing time the wind generating plant shall be required to withstand for a three-phase fault shall be nine (9) cycles after which, if the fault remains following the location-specific normal clearing time for three-phase faults, the wind generating plant may disconnect from the transmission system. A wind generating plant shall remain interconnected during such a fault on the transmission system for a voltage level as low as zero (0) volts, as measured at the high voltage side of the wind GSU.
2. This requirement does not apply to faults that would occur between the wind generator terminals and the high side of the GSU.
3. Wind generating plants may be tripped after the fault period if this action is intended as part of a special protection system.
4. Wind generating plants may meet the LVRT requirements of this standard by the performance of the generators or by installing additional equipment (e.g., Static VAR Compensator) within the wind generating plant or by a combination of generator performance and additional equipment.
5. Existing individual generator units that are, or have been, interconnected to the network at the same location at the effective date of the Appendix G LVRT Standard are exempt from meeting the Appendix G LVRT Standard for the remaining life of the existing generation equipment. Existing individual generator units that are replaced are required to meet the Appendix G LVRT Standard.

#### **ii. Power Factor Design Criteria (Reactive Power)**

The following reactive power requirements apply only to a newly interconnecting wind generating plant that has executed a Facilities Study Agreement as of the effective date of the Final Rule establishing the reactive power requirements for non-synchronous generators in Article 9.6.1 of this LGIA (Order No. 827).<sup>2</sup> A wind generating plant to

which this provision applies shall maintain a power factor within the range of 0.95 leading to 0.95 lagging, measured at the Point of Interconnection as defined in this LGIA, if Transmission Provider's System Impact Study shows that such a requirement is necessary to ensure safety or reliability. The power factor range standard can be met by using, for example, power electronics designed to supply this level of reactive capability (taking into account any limitations due to voltage level, real power output, etc.) or fixed and switched capacitors if agreed to by Transmission Provider, or a combination of the two. The Interconnection Customer shall not disable power factor equipment while the wind plant is in operation. Wind plants shall also be able to provide sufficient dynamic voltage support in lieu of the power system stabilizer and automatic voltage regulation at the generator excitation system if the System Impact Study shows this to be required for system safety or reliability.

- [2] If identified in the System Impact Study as necessary to ensure safety or reliability, existing Generating Facilities being upgraded that require a new interconnection request are subject to this reactive power requirement.

**iii. Supervisory Control and Data Acquisition (SCADA) Capability**

The wind plant shall provide SCADA capability to transmit data and receive instructions from Transmission Provider to protect system reliability. Transmission Provider and the wind plant Interconnection Customer shall determine what SCADA information is essential for the proposed wind plant, taking into account the size of the plant and its characteristics, location, and importance in maintaining generation resource adequacy and transmission system reliability in its area.

## **APPENDIX 6.1 to Revised LGIP**

### **INTERCONNECTION PROCEDURES FOR A WIND GENERATING PLANT**

Appendix G to the LGIA sets forth procedures specific to a wind generating plant. All other requirements of this Revised LGIP continue to apply to wind generating plant interconnections.

#### **A. Special Procedures Applicable to Wind Generators**

The wind plant Interconnection Customer, in completing the Interconnection Request required by section 3.4 of this Revised LGIP, may provide to Transmission Provider a set of preliminary electrical design specifications depicting the wind plant as a single equivalent generator. Upon satisfying these and other applicable Interconnection Request conditions, the wind plant may enter the Queue and receive the base case data as provided for in this Revised LGIP.

No later than six months after submitting an Interconnection Request completed in this manner, the wind plant Interconnection Customer must submit completed detailed electrical design specifications and other data (including collector system layout data) needed to allow Transmission Provider to complete the System Impact Study.