

**ASSOCIATED ELECTRIC COOPERATIVE, INC.**

**GENERATOR**

**INTERCONNECTION PROCEDURES (GIP)**

**and**

**ASSOCIATED ELECTRIC COOPERATIVE, INC.**

**GENERATOR**

**INTERCONNECTION AGREEMENT (GIA)**

**ASSOCIATED ELECTRIC COOPERATIVE, INC.**  
**GENERATOR**  
**INTERCONNECTION PROCEDURES (GIP)**

## GIP and GIA Revision History

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1	March 3, 2009	Appendix 4 (GIA) Article 2.2
2	June 8, 2009	GIP Section 9.3, Appendix 3 Section 18 and various minor corrections. GIA Article 7.4, 9.7.2, 9.15, 11.3, 11.4, 11.6.1, Appendix G
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7	October 30, 2017	Attachment A of Appendix 1, Appendix 3, various minor corrections and merger of Revision History.

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## **Section 1. Definitions**

**AECI** shall mean Associated Electric Cooperative, Inc.

**Affected System** shall mean an electric system other than the 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 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 having jurisdiction over any Party, its facilities and/or services it provides.

**Applicable Reliability Council** shall mean the Regional Entity, as defined by Section 215 of the Federal Power Act, applicable to the Transmission System. SERC is AECI's reliability council.

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

**Balancing Authority** means the responsible entity with respect to an electrical system or systems bounded by interconnection metering and telemetry, capable of controlling generation to maintain its interchange schedule with other Balancing Authorities and contributing to frequency regulation of the interconnection. A Balancing Authority must be certified by an Applicable Reliability Council.

**Balancing Authority Area** shall mean an electrical system or systems bound by interconnection metering and telemetry, capable of controlling generation to maintain its interchange schedule with other Balancing Authority Areas and contributing to frequency regulation of the interconnection.

**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 GIA.

**Breaching Party** shall mean a Party that is in Breach of the GIA.

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

**Calendar Day** shall mean any day including Saturday, Sunday or a Federal Holiday.

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

**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 D to the GIA.

**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.

**Critical Energy Infrastructure Information** shall have the meaning as defined by FERC.

**Default** shall mean the failure of a Breaching Party to cure its Breach in accordance with Article 17 of the GIA.

**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. The Dispute Resolution process is defined as set forth in Section 11.5 of the GIP.

**Effective Date** shall mean the date on which the GIA becomes effective upon execution by the Parties.

**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 the Transmission System, Transmission Provider's Interconnection Facilities or the electric systems of others to which the

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 GIA 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 System to be eligible to deliver the Generating Facility's electric output using the existing firm or non-firm capacity of the 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.

**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 an event or circumstance beyond the control of the Party claiming Force Majeure, which, by exercise of due diligence and foresight, could not have been reasonably avoided, including, but not limited to, flood, earthquake, storm, fire, lightning, epidemic, war, riot, civil disturbance, sabotage, strike, breakage or accident to machinery or equipment, and act of God or any other cause beyond the control of the Party claiming Force Majeure. However, the obligation to use due diligence shall not be interpreted to require resolution of labor disputes by acceding to demands of the opposition when such course is inadvisable in the discretion of the Party having such difficulty. A Force Majeure event does not include acts of negligence or intentional wrongdoing by the Party claiming Force Majeure or changes in market conditions, governmental action, or weather conditions that affect the cost of Interconnection Customer's supply of energy from the Generating Facility.

**Generating Facility** shall mean Interconnection Customer's device for the production of electricity, rated at a capacity of 1 MW or greater, 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.

**Generator Interconnection Agreement (“GIA”)** shall mean the form of interconnection agreement applicable to an Interconnection Request pertaining to a Generating Facility interconnecting to the Transmission System.

**Generator Interconnection Procedures (“GIP”)** shall mean the interconnection procedures to the Transmission System applicable to an Interconnection Request pertaining to a Generating Facility.

**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.

**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 or any of the Affiliates or subsidiaries of either, that proposes to interconnect its Generating Facility with the Transmission System.

**Interconnection Customer's Interconnection Facilities (“ICIF”)** shall mean all facilities and equipment, as identified in Appendices A and C of the GIA, 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 System. Interconnection Customer's Interconnection Facilities are sole use facilities.

**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 System. Interconnection Facilities are sole use facilities and shall not include Network Upgrades.

**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 Interconnection System Impact Study), the cost of those facilities, and the time required to interconnect the Generating Facility with the Transmission System. The scope of the study is defined in Section 7.3 of the GIP.

**Interconnection Facilities Study Agreement** shall mean the form of agreement contained in Appendix 2 of the GIP for conducting the Interconnection Facilities Study.

**Interconnection Facilities Study (“IFS”) Queue Position** shall mean the order of valid Interconnection Requests, relative to all other pending valid Interconnection Requests in the Interconnection Facility Phase as determined in accordance with the GIP.

**Interconnection Request** shall mean an Interconnection Customer's request, in the form set forth in Section 3.4, 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 System.

**Interconnection Service** shall mean the service provided by the Transmission Provider associated with interconnecting the Generating Facility to the 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 GIA.

**Interconnection Study** shall mean the Interconnection System Impact Study or the Interconnection Facilities Study.

**Interconnection System Impact Study** shall mean an engineering study that evaluates the impact of the proposed interconnection on the safety and reliability of the Transmission System and, if applicable, an Affected System. The study shall identify and detail the system impacts that would result if the Generating Facility were interconnected without project modifications or system modifications.

**Interconnection System Impact Study Agreement** shall mean the form of agreement contained in Appendix 1 of the GIP for conducting the Interconnection System Impact Study.

**Interconnection System Impact Study (“ISIS”) Queue Position** shall mean the order of valid Interconnection Requests relative to all other pending valid Interconnection Requests in the Interconnection System Impact Phase as determined in accordance with the GIP.

**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.

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

**Metering Equipment** shall mean all metering equipment installed or to be installed at the Generating Facility pursuant to the GIA 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 Corporation or its successor organization approved by FERC.

**Network Resource** shall mean any designated generating resource owned, purchased or leased by network load interconnected to the Transmission System or any designated generating resource committed to sell its output on a firm basis via a power purchase agreement to a network load interconnected to the Transmission System. 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 load on a non-interruptible basis.

**Network Resource Interconnection Service** shall mean an Interconnection Service that allows the Interconnection Customer to integrate its Generating Facility with the Transmission System in a manner comparable to that in which the Transmission Provider integrates its generating facilities to serve native load customers. 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 System required at or beyond the point at which the Interconnection Facilities connect to the Transmission System to accommodate the interconnection of the Generating Facility to the Transmission System.

**Notice of Dispute** shall mean a written notice of a dispute or claim that arises out of or in connection with the GIP.

**Open Access Same-Time Information System (“OASIS”)** shall mean the information system contained in Part 37 of FERC’s regulations and all additional requirements implemented by subsequent FERC orders dealing with OASIS.

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

**Point of Change of Ownership** shall mean the point, as set forth in Appendices A and C of the GIA, where the Interconnection Customer's Interconnection Facilities connect to the Transmission Provider's Interconnection Facilities.

**Point of Delivery** shall mean point(s) on the Transmission System where capacity and energy transmitted by the Transmission Provider will be made available to the receiving party.

**Point of Interconnection** shall mean the point, as set forth in Appendices A and C to the GIA, where the Interconnection Facilities connect to the Transmission System.

**Pre-Queue Informational Meeting** shall mean a meeting between the Transmission Provider and the Interconnection Customer to discuss the proposed generator interconnection prior to submitting the Interconnection Request.

**Queue Position** shall mean the order of valid Interconnection Requests in the respective phase of the GIP (Interconnection System Impact Study Phase or Interconnection Facilities Study Phase), relative to all other pending valid Interconnection Requests. Queue Position is established based upon the requirements and procedures of each of the above referenced study phases.

**Reasonable Efforts** shall mean, with respect to an action required to be attempted or taken by a Party under the GIA, 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.

**Reliability Coordinator** shall have the meaning as defined by NERC. Reliability Coordinator typically means the entity that is the highest level of authority who is responsible for the reliable operation of the bulk electric system.

**SCADA** shall mean Supervisory Control and Data Acquisition system.

**SERC** shall mean the SERC Reliability Corporation or its successor.

**Site Control** shall mean documentation reasonably demonstrating: (1) ownership of, a leasehold interest in, or a right to develop a site for the purpose of constructing the Generating Facility; (2) an option to purchase or acquire a leasehold site for such purpose; or (3) an exclusivity or other business relationship between Interconnection Customer and the entity having the right to sell, lease or grant Interconnection Customer the right to possess or occupy a site for such purpose. Such documentation must include a reasonable determination of sufficient land area to support the size and type of Generating Facility proposed.

**System Protection Facilities** shall mean the equipment, including necessary protection signal communications equipment, required to protect (1) the 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 System

or on other delivery systems or other generating systems to which the Transmission System is directly connected.

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

**Transmission Provider** shall mean Associated Electric Cooperative, Inc.

**Transmission Provider's Interconnection Facilities ("TPIF")** 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 and Appendix C of the GIA, including any modifications, additions or upgrades to such facilities and equipment. Transmission Provider's Interconnection Facilities are sole use facilities and shall not include Network Upgrades.

**Transmission System** shall mean the facilities owned, controlled or operated by the Transmission Provider rated at 69 kV and above.

**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.

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

### **2.1 Application of Generator Interconnection Procedures.**

- a. The GIP applies to the interconnection of a Generating Facility to the Transmission System.
- b. Sections 2 through 11 of the GIP apply to processing a Generating Interconnection Request when one of the following is proposed by the Interconnection Customer: (i) a new Generating Facility at a new Point of Interconnection, (ii) additional generation at an existing Point of Interconnection of a previously queued Interconnection Request, (iii) an increase in the capacity of an existing Generating Facility, or (iv) a Material Modification to the operating characteristics on an existing Generating Facility.

### **2.2 Comparability.**

Transmission Provider shall receive, process and analyze all Interconnection Requests in a timely manner as set forth in this GIP. 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 or its Affiliates or others.

**2.3 Base Case Data.**

Transmission Provider shall provide base power flow, short circuit and stability databases, including all underlying assumptions, and contingency list upon request subject to the Non-Disclosure and Confidentiality Agreement in Appendix 3. Transmission Provider is permitted to require that Interconnection Customer sign the Non-Disclosure and 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 (i) generation projects and (ii) 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 Transmission Provider.

**2.4 No Applicability to Transmission Service.**

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

**Section 3. Pre-Queue Informational Meeting and Interconnection Request**

**3.1 Pre-Queue Informational Meeting.**

The Transmission Provider will be available for consultation with the Interconnection Customer to discuss potential Interconnection Requests. Such discussions may address but are not limited to the GIP, alternative interconnection options, the exchange of information including any transmission data that would reasonably be expected to impact such interconnection options, Base Case data (contingent on execution of confidentiality agreement), potential feasible Points of Interconnection, general facility loadings, general instability issues, general short circuit issues, general voltage issues, and general reliability issues.

At Interconnection Customer's option, Transmission Provider and Interconnection Customer will identify alternative Point(s) of Interconnection and configurations at the Pre-Queue Informational Meeting in an attempt to eliminate alternatives in a reasonable fashion given resources and information available.

**3.2 Interconnection Request**

An Interconnection Customer shall submit to Transmission Provider an Interconnection Request as specified in Section 3.4.1.

Interconnection Customer shall submit a separate Interconnection Request for each proposed Point of Interconnection and may submit multiple Interconnection Requests for a single Point of Interconnection. Interconnection Customer must submit a deposit with each Interconnection Request even when more than one request is submitted for a single Point of Interconnection. An Interconnection

Request to evaluate one site at two different voltage levels shall be treated as two Interconnection Requests.

### **3.3 Type of Interconnection Service.**

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. Any Interconnection Customer requesting Network Resource Interconnection Service must have a power purchase agreement to serve network load on the Transmission System or the Generating Facility identified in the Interconnection Request must be owned, purchased or leased by network load interconnected to the Transmission System.

#### **3.3.1 Energy Resource Interconnection Service.**

**3.3.1.1 The Product.** Energy Resource Interconnection Service allows Interconnection Customer to connect the Generating Facility to the Transmission System and be eligible to deliver the 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.

**3.3.1.2 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 Generating Facility and would also identify the maximum allowed output, at the time the study is performed, of the interconnecting Generating Facility without requiring additional Network Upgrades.

#### **3.3.2 Network Resource Interconnection Service.**

**3.3.2.1 The Product.** Transmission Provider must conduct the necessary studies and construct the Network Upgrades needed to integrate the Generating Facility in a manner comparable to that in which Transmission Provider integrates its generating facilities to serve native load customers. Network Resource Interconnection Service

allows the Generating Facility to be considered as a Network Resource, up to the Generating Facility's full output, on the same basis as existing Network Resources interconnected to the Transmission System, and to be studied as a Network Resource.

**3.3.2.2 The Study.** The Interconnection Study for Network Resource Interconnection Service shall assure that the Generating Facility meets the requirements for Network Resource Interconnection Service and as a general matter, that such Generating Facility's interconnection is also studied with the Transmission System at peak load, under a variety of severely stressed conditions, to determine whether, with the Generating Facility at full output, the aggregate of generation in the local area can be delivered to the aggregate of load on the Transmission System, consistent with the Transmission Provider's reliability criteria and procedures. This approach assumes that some portion of the existing Network Resources are displaced by the output of the 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.

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

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

To initiate an Interconnection Request, Interconnection Customer must submit all of the following to the Transmission Provider:

- (i) A non-refundable fee of \$5,000.
- (ii) An Interconnection System Impact Study cash deposit based on the Generating Facility Capacity or increase in capacity of an existing Generating Facility per the following schedule:
  - a. 5 MW or less: \$10,000;
  - b. Greater than 5 MW up to and including 50 MW: \$30,000;

- c. Greater than 50 MW up to and including 500 MW: \$75,000;
- d. Greater than 500 MW \$100,000.

The above deposit shall be applied to conducting an Interconnection System Impact Study. Any remaining funds shall be refundable, in accordance with Section 3.7, if the Interconnection Customer withdraws its Interconnection Request; otherwise, remaining deposit amounts shall be applied to Interconnection Facilities Study's deposit requirements of Section 7.1.

- (iii) A completed application in the form of Appendix 1 and completion of the Generating Facility Data (Attachment A of Appendix 1).
- (iv) Execution of an Interconnection System Impact Study Agreement (Attachment B of Appendix 1).
- (v) Demonstration of 50% Site Control.
- (vi) A representative stability model sufficient to represent the generator in the Interconnection System Impact Study.
- (vii) Executed Non Disclosure and Confidentiality Agreement.

The expected In-Service Date of the new Generating Facility or increase in capacity of the existing Generating Facility shall be no more than ten (10) years (the process window for Transmission Provider's expansion planning period) from the date the Interconnection Request is received by Transmission Provider unless Interconnection Customer demonstrates that engineering, permitting and construction of the new Generating Facility or increase in capacity of the existing Generating Facility will take longer than the ten (10) years.

### **3.4.2 Deficiencies in Interconnection Request and Acknowledgment of a Valid Request.**

An Interconnection Request will not be considered valid until all items in Section 3.4.1 have been received by Transmission Provider. If an Interconnection request is deemed valid, the Transmission Provider shall provide written or electronic acknowledgement of receipt of the valid Interconnection Request within twenty-one (21) Calendar Days.

If an Interconnection Request fails to meet the requirements set forth in Section 3.4.1, Transmission Provider shall provide written or electronic notice to the Interconnection Customer of the reasons for such failure and

that the Interconnection Request does not constitute a valid request. Written or electronic notice shall be provided within twenty-one (21) Calendar Days of receipt of the initial Interconnection Request.

Interconnection Customer shall provide Transmission Provider the additional requested information needed to constitute a valid request within twenty-one (21) Calendar Days after receipt of such notice. Failure by Interconnection Customer to comply with this Section 3.4.2 will result in the Interconnection Request not being processed until such deficiency is cured. In the event that the deficiency is not cured within twenty-one (21) Calendar Days of notice by Transmission Provider, the Transmission Provider will notify the Interconnection Customer that the Interconnection Request has been withdrawn and refund to Interconnection Customer any unused portion of Interconnection Customer's deposit that exceeds the costs that Transmission Provider has incurred.

In the event the Transmission Provider discovers or verifies a deficiency later in the GIP process, the Transmission Provider will provide written or electronic notice to the Interconnection Customer as soon as practicable and will provide the Interconnection Customer a reasonable time period in which to correct the deficiency. The Transmission Provider will not proceed with processing the Interconnection Request until the deficiency is cured. If the deficiency is not cured in the time period allowed by the Transmission Provider, then the Transmission Provider will notify the Interconnection Customer that the Interconnection Request has been withdrawn and refund to Interconnection Customer any unused portion of Interconnection Customer's deposit that exceeds the costs that Transmission Provider has incurred.

### **3.4.3 Establishment of Queue Position in Interconnection System Impact Study Phase.**

Upon receipt of all items listed in Section 3.4.1 and verified by written acknowledgement by the Transmission Provider (Section 3.4.2), the Interconnection Request will be deemed valid and assigned a Queue Position in the Interconnection System Impact Study Phase. The Interconnection System Impact Study Phase Queue Position shall be based on the date that Interconnection Customer submitted a valid Interconnection Request (Section 4.1).

### **3.5 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 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 date of the Interconnection Request; and (ix) the type of Generating Facility to be constructed (combined cycle, base load or combustion turbine and fuel type).

### **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 GIP. Transmission Provider shall invite such Affected System Operators to participate in meetings held with Interconnection Customer as required by this GIP. Interconnection Customer will cooperate with Transmission Provider in all matters related to the conduct of studies and the determination of modifications to Affected Systems. The Interconnection Customer will be separately responsible to adhere to the Affected System Owners procedures and pay all costs related to studies and modifications to the Affected System.

### **3.7 Withdrawal.**

Interconnection Customer may withdraw its Interconnection Request at any time by written or electronic notice of such withdrawal to Transmission Provider.

Notwithstanding any other section of the GIP, if Interconnection Customer fails to adhere to any requirement of this GIP, except as provided in Section 11.4 (Disputes), the Interconnection Request will be withdrawn. Transmission Provider shall provide written or electronic notice to Interconnection Customer of the withdrawal and an explanation of the reasons for such withdrawal. Withdrawal shall result in the loss of Interconnection Customer's Queue Position and require a new Interconnection Request to be initiated per Section 3.4.1, if desired.

An Interconnection Customer with a withdrawn Interconnection Request shall pay to Transmission Provider all costs that Transmission Provider prudently incurred with respect to that Interconnection Request prior to the Interconnection Request being withdrawn. Interconnection Customer must pay all monies due to Transmission Provider before it is allowed to obtain any Interconnection Study data or results.

Upon withdrawal, Transmission Provider shall (i) update the OASIS Queue Position posting (Interconnection System Impact Study Phase or Interconnection Facilities Study Phase) and (ii) refund to Interconnection Customer any portion of Interconnection Customer's deposit or study payments that exceeds the costs that Transmission Provider has incurred, including the lower of the amount of interest earned in the interest-bearing account in which Transmission Provider shall have deposited such amount or the amount of interest calculated in accordance with

section 35.19a(a)(2)(iii) of FERC's regulations. In the event of such withdrawal, Transmission Provider, subject to the Confidentiality Agreement of Appendix 3, 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.

## **Section 4. Interconnection System Impact Study Phase Queue Position and Modifications to Interconnection Request**

### **4.1 General.**

Transmission Provider shall assign an Interconnection System Impact Study Phase ("ISISP") Queue Position in accordance with Section 3.4.3.

Moving a Point of Interconnection shall result in a lowering of the ISISP Queue Position if it is deemed a Material Modification under Section 4.4.

The ISISP Queue Position of each Interconnection Request will be used to determine the order of performing the Interconnection System Impact Study and determination of cost responsibility for the facilities necessary to accommodate the Interconnection Request. A higher queued Interconnection Request is one that has been placed "earlier" in the queue in relation to another Interconnection Request that is lower queued.

The Transmission Provider may perform an Interconnection System Impact Study out of queue order at anytime to the extent warranted by Good Utility Practice based upon the electrical remoteness of the Generating Facility.

### **4.2 Clustering.**

At Transmission Provider's option, Interconnection Requests may be studied serially or in clusters for the purpose of the Interconnection System Impact Study.

Clustering shall be implemented on the basis of Queue Position. If Transmission Provider elects to study Interconnection Requests using Clustering, all Interconnection Requests received within a period not to exceed one hundred and eighty (180) Calendar Days, hereinafter referred to as the "Queue Cluster Window" shall be studied together without regard to the nature of the underlying Interconnection Service, whether Energy Resource Interconnection Service or Network Resource Interconnection Service. The deadline for completing all Interconnection System Impact Studies for which an Interconnection System Impact Study Agreement has been executed during a Queue Cluster Window shall be in accordance with Section 6.4, for all Interconnection Requests assigned to the same Queue Cluster Window. Transmission Provider may study an Interconnection Request separately to the extent warranted by Good Utility Practice based upon the electrical remoteness of the proposed Generating Facility.

Clustering Interconnection System Impact Studies 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.

The Queue Cluster Window shall have a fixed time interval based on fixed annual opening and closing dates. Any changes to the established Queue Cluster Window interval and opening or closing dates shall be announced with a posting on Transmission Provider's OASIS beginning at least one hundred and eighty (180) Calendar Days in advance of the change and continuing thereafter through the end date of the first Queue Cluster Window that is to be modified.

**4.3 Transferability of ISISP Queue Position.**

An Interconnection Customer may transfer its ISISP Queue Position to another entity only if such entity acquires the specific Generating Facility identified in the Interconnection Request and the Point of Interconnection, provided the acquiring entity satisfies the requirements of Section 3.4.1 by the date of the transfer of the ISISP Queue Position. Interconnection Customer shall provide notice in writing to Transmission Provider of any such transfer.

**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 ISISP Queue Position if the modifications are in accordance with Section 4.4.1 or are determined not to be Material Modifications pursuant to Section 4.4.2.

Notwithstanding the above, during the course of the Interconnection System Impact Study, 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. To the extent the identified changes are acceptable to Transmission Provider and Interconnection Customer, 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 6.6 and Section 7.6 as applicable and Interconnection Customer shall retain its ISISP Queue Position.

**4.4.1** Prior to the completion of the Interconnection System Impact Study, the modifications permitted under this Section shall include specifically, Generating Facility technical parameters associated with modifications to Generating Facility technology and transformer impedances to reasonably equivalent equipment. With such modifications, the Interconnection Customer shall submit a detailed analysis demonstrating why it considers

the change not to be a Material Modification. In absence of such analysis, the modification shall be deemed a Material Modification. The incremental costs associated with these modifications are the responsibility of the Interconnection Customer.

- 4.4.2** Prior to making any modification other than those specifically permitted by Sections 4.4.1, 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.
- 4.4.3** 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. Any additional studies, including lower queued Interconnection Requests studies, resulting from such modification shall be done at Interconnection Customer's cost.

## **Section 5. Procedures for Interconnection Requests Submitted Prior to Effective Date of Generator Interconnection Procedures**

### **5.1 Queue Position for Pending Requests.**

- 5.1.1** Any Interconnection Customer assigned a Queue Position ("Pending Interconnection Request") prior to the February 2, 2009 effective date of this GIP shall retain that Queue Position subject to the requirements below. Any Interconnection Customer that fails to meet these requirements shall have its Pending Interconnection Request deemed withdrawn pursuant to Section 3.7.
  - 5.1.1.1** All Pending Interconnection Requests that have executed an Interconnection Facilities Study Agreement will not be required to conform to this GIP, with the exception of the GIA attached to this GIP.
  - 5.1.1.2** If an Interconnection System Impact Study Agreement has been executed prior to November 26, 2008, the Pending Interconnection's Request Queue Position will be maintained in the Interconnection System Impact Study Phase. Transmission Provider will perform the Interconnection System Impact Study in accordance with the Interconnection System Impact Study Agreement. Upon completion of the Interconnection System Impact Study,

the Pending Interconnection Request will be required to conform to this GIP.

- 5.1.1.3** All Pending Interconnection Requests that do not have an executed Interconnection System Impact Study Agreement by November 26, 2008, will be required to conform to this GIP. Within sixty (60) Calendar days of February 2, 2009 these Interconnection Customers shall submit revised Interconnection Requests per Section 3.4.1 of this GIP.

## **Section 6. Interconnection System Impact Study Phase**

### **6.1 General and Required Milestones.**

A valid Interconnection Request (Section 3.4.1) must be submitted to the Transmission Provider prior to entry into the Interconnection System Impact Study Phase.

Transmission Provider shall assign an Interconnection System Impact Study Phase Queue Position in accordance with Section 3.4.3.

The Interconnection System Impact Study Queue Position of each Interconnection Request will generally be used to determine the order of performing the Interconnection System Impact Study and determination of cost responsibility for the facilities necessary to accommodate the Interconnection Request. Pursuant to Section 4.1, the Transmission Provider may perform an Interconnection System Impact Study of an Interconnection Request out of queue order.

A higher queued Interconnection Request is one that has been placed "earlier" in the queue in relation to another Interconnection Request that is lower queued.

### **6.2 Generation Levels of Interconnection System Impact Study.**

The Transmission Provider shall study the Interconnection Request at three Generating Facility Capacities; (i) initial Interconnection Request level (ii) maximum output with no Network Upgrades and (iii) at a level specified by Interconnection Customer no less than 60% of initial Interconnection Request.

### **6.3 Scope of Interconnection System Impact Study.**

The Interconnection System Impact Study shall evaluate the impact of the proposed interconnection on the reliability of the Transmission System. The 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 interconnection) that, on the date the Interconnection System Impact Study is commenced: (i) are directly interconnected to the Transmission System; (ii) are 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.

The Interconnection System Impact Study will consist of a short circuit analysis, a stability analysis and a power flow analysis. The Interconnection System Impact Study 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. The Interconnection System Impact Study will provide a list of facilities (Interconnection Facilities and Network Upgrades) that are required as a result of the Interconnection Request.

#### **6.4 Interconnection System Impact Study Procedures.**

Transmission Provider shall coordinate the 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 study. Transmission Provider shall use Reasonable Efforts to complete the Interconnection System Impact Study within one hundred twenty (120) Calendar Days after the acknowledgement of a receipt of a valid Interconnection Request (Section 3.4.2).

At the request of Interconnection Customer, or at any time Transmission Provider determines that it will not meet the required time frame for completing the Interconnection System Impact Study, Transmission Provider shall notify Interconnection Customer as to the schedule status of the Interconnection System Impact Study. If Transmission Provider is unable to complete the Interconnection System Impact Study within the time period, it shall notify Interconnection Customer 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, work papers and relevant pre-Interconnection Request and post-Interconnection Request power flow, short circuit and stability databases for the Interconnection System Impact Study, subject to confidentiality arrangements consistent with Appendix 3.

#### **6.5 Post Study Review and Submission of Unexecuted Interconnection Facilities Study Agreement.**

Upon completion of the Interconnection System Impact Study, the Transmission Provider shall submit the study report and an unexecuted Interconnection Facilities Study Agreement (Appendix 2) to the Interconnection Customer.

Within thirty (30) Calendar Days of providing an Interconnection System Impact Study report to Interconnection Customer, or other mutually acceptable date,

Transmission Provider and Interconnection Customer shall review the results of the Interconnection System Impact Study.

**6.6 Re-Study.**

If Re-Study of the Interconnection System Impact Study is required due to a higher queued project dropping out of the queue, or a modification of a higher queued project subject to Section 4.4. Transmission Provider shall so notify Interconnection Customer in writing. Transmission Provider shall use Reasonable Efforts to complete the Re-Study within ninety (90) Calendar Days from the date of notice. Any cost of Re-Study shall be borne by the Interconnection Customer.

**Section 7. Interconnection Facilities Study Phase**

**7.1 General and Required Milestones.**

The Interconnection Customer must submit all of the following to the Transmission Provider prior to entering the Interconnection Facilities Study Phase:

- (i) An executed Interconnection Facilities Study Agreement (Appendix 2)
- (ii) Demonstration of 100% Site Control
- (iii) An Interconnection Facilities Study cash deposit based on the Generating Facility Capacity or increase in capacity of an existing Generating Facility per the following schedule:
  - a. 5 MW or less \$15,000;
  - b. Greater than 5 MW up to and including 50 MW \$100,000;
  - c. Greater than 50 MW up to and including 100 MW \$200,000;
  - d. Greater than 100 MW up to and including 500 MW \$300,000
  - e. Greater than 500 MW \$400,000

The above deposit shall be applied to conducting an Interconnection Facility Study. Any remaining funds shall be refundable, in accordance with Section 3.7, if the Interconnection Customer withdraws its Interconnection Request; otherwise, remaining deposit amounts shall be applied to the deposit requirements of Section 9.3.

- (iv) Detailed stability model
- (v) One line diagram showing the Generating Facility and associated electrical equipment with appropriate rating and impedance information
- (vi) Generating Facility Capacity

- (vii) For Network Resource Interconnection Service, an executed power purchase agreement must be submitted or other evidence satisfactory to Transmission Provider that the proposed Network Resource shall be used to serve network load interconnected to the Transmission System.

**7.2 Interconnection Facilities Study Phase (“IFSP”) Queue Position.**

Upon receipt of all items listed in Section 7.1, and verified by written acknowledgement of the Transmission Provider, the Interconnection Request will be assigned an IFSP Queue Position in the Interconnection Facilities Study Phase.

In the event that the items in Section 7.1 are not received by the Transmission Provider within sixty (60) Calendar Days after submittal of the unexecuted Interconnection Facility Agreement to the Interconnection Customer (Section 6.5), the Transmission Provider will provide written or electronic notice to the Interconnection Customer that the Interconnection Request is withdrawn and will refund to Interconnection Customer any unused portion of Interconnection Customer's deposit that exceeds the costs that Transmission Provider has incurred, including the lower of the amount of interest earned in the interest-bearing account in which Transmission Provider shall have deposited such amount or the amount of interest calculated in accordance with section 35.19a(a)(2)(iii) of FERC's regulations.

The IFSP Queue Position of each Interconnection Request will be used to determine the order in which the Interconnection Facilities Study is performed.

**7.3 Scope of Interconnection Facilities Study.**

The Interconnection Facilities Study shall specify and estimate the cost of the equipment, engineering, procurement and construction work needed to implement the conclusions of the Interconnection System Impact Study 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 TPIF and Network Upgrades necessary to accomplish the interconnection; and an estimate of the time required to complete the construction and installation of such facilities.

**7.4 Interconnection Facilities Study Procedures.**

Transmission Provider shall coordinate the Interconnection Facilities Study with any Affected System pursuant to Section 3.6. 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 one hundred twenty (120) Calendar Days after

Transmission Provider has provided written acknowledgement that the Interconnection Request has been assigned an IFSP Queue Position.

At the request of Interconnection Customer, or at any time Transmission Provider determines that it will not meet the required time frame for completing the Interconnection Facilities Study, 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 required, it shall notify Interconnection Customer and provide an estimated completion date and an explanation of the reasons why additional time is required.

Interconnection Customer may, within thirty (30) Calendar Days after receipt of the draft report, provide written comments to Transmission Provider, which Transmission Provider may include in the final report. Transmission Provider shall issue the final Interconnection Facilities Study report within thirty (30) Calendar 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 thirty-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 Report. Upon request, Transmission Provider shall provide Interconnection Customer supporting documentation, work papers, and databases or data developed in the preparation of the Interconnection Facilities Study, subject to confidentiality arrangements consistent with the Confidentiality Agreement in Appendix 3.

**7.5 Post Study Review.**

Upon completion of the Interconnection Facilities Study, the Transmission Provider shall submit the final report and tender a draft GIA to the Interconnection Customer.

**7.6 Re-Study.**

If a Re-Study of the Interconnection Facilities Study is required due to a higher 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. Transmission Provider shall use Reasonable Efforts to complete the Re-Study within ninety (90) Calendar Days from the date of notice. Any cost of Re-Study shall be borne by the Interconnection Customer being re-studied.

**Section 8. Engineering & Procurement (“E&P”) Agreement**

Prior to executing a GIA and upon mutual agreement by the Parties, the Interconnection Customer and Transmission Provider may enter into 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 enter into 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 milestones or comply with any prerequisites specified in other parts of the GIP. 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 9. Generator Interconnection Agreement**

### **9.1 Tender.**

Upon completion of the Interconnection Facilities Study, the Transmission Provider shall submit the final report and tender a draft GIA to the Interconnection Customer (Section 7.5). The draft GIA shall be similar to the form attached in Appendix 4 of this GIP.

### **9.2 Negotiation.**

At the request of Interconnection Customer, Transmission Provider shall begin negotiations with Interconnection Customer concerning the appendices (i.e. Interconnection Facilities, cost allocation, schedule, etc) to the GIA at any time after Transmission Provider tenders the GIA to the Interconnection Customer. Transmission Provider and Interconnection Customer shall negotiate any disputed provisions of the appendices to the draft GIA for not more than ninety (90) Calendar Days after tender of the draft GIA pursuant to Section 9.1. If either

Party determines that negotiations are at an impasse, such Party may request termination of the negotiations at any time after tender of the draft GIA pursuant to Section 9.1 and initiate Dispute Resolution procedures pursuant to Section 11.4.

If Interconnection Customer requests termination of the negotiations, but within fifteen (15) Calendar Days thereafter fails to 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 GIA, or initiated Dispute Resolution procedures pursuant to Section 11.4 within ninety (90) Calendar Days of tender of draft GIA, it shall be deemed to have withdrawn its Interconnection Request.

### **9.3 Execution.**

Interconnection Customer shall execute two copies of the draft GIA and return them to Transmission Provider with the required items in Section 9.3.1 within ninety (90) Calendar Days of the initial tendering of the draft GIA to the Interconnection Customer pursuant to Section 9.1.

If the Interconnection Customer does not provide two Interconnection Customer executed copies of the draft GIA and the required items of Section 9.3.1 to the Transmission Provider within ninety (90) Calendar Days of the initial tendering of the draft GIA, the Interconnection Request shall be deemed withdrawn.

**9.3.1** Interconnection Customer shall provide to Transmission Provider the following items concurrently with the Interconnection Customer executed GIA pursuant to this Section 9.3:

- (i) recertification of 100% Site Control; and
- (ii) a non-refundable cash deposit (capped at \$500,000) equal to 50% of the material and construction costs of TPIF and Network Upgrades identified in the Interconnection Facilities Study which shall be applied toward future construction costs.

At the same time, Interconnection Customer shall provide reasonable evidence that one or more of the following milestones in the development of the Generating Facility, at Interconnection Customer election, has been achieved:

- (i) the execution of a contract for the supply or transportation of fuel to the Generating Facility;
- (ii) execution of a contract for the engineering, procurement of major equipment, or construction of the Generating Facility;

- (iii) execution of a contract for the sale of electric energy or capacity from the Generating Facility;
- (iv) application for an air permit (if applicable); or
- (v) filing a Notice of Proposed Construction or Alteration with the Federal Aviation Administration (if applicable).

**9.4 Commencement of Interconnection Activities.**

If Interconnection Customer and Transmission Provider execute the final GIA, Transmission Provider and Interconnection Customer shall perform their respective obligations in accordance with the terms of the GIA.

**Section 10. Construction of Transmission Provider's Interconnection Facilities and Network Upgrades**

**10.1 Schedule.**

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

Transmission Provider shall not be required to accommodate a construction schedule which in the Transmission Provider's sole opinion is unobtainable using Reasonable Efforts.

**10.2 Construction Sequencing.**

**10.2.1 General.**

In general, the In-Service Date of an Interconnection Customer seeking interconnection to the Transmission System will determine the sequence of the construction of Network Upgrades.

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

An Interconnection Customer with an executed GIA may request that the Transmission Provider advance to the extent necessary the completion of Network Upgrades pursuant to Section 5.17 of the GIA.

**Section 11. Miscellaneous**

**11.1 Delegation of Responsibility.**

Transmission Provider may use the services of subcontractors as it deems appropriate to perform its obligations under this GIP. Transmission Provider shall remain primarily liable to Interconnection Customer for the performance of such subcontractors and compliance with its obligations of this GIP. 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.

**11.2 Obligation for Study Costs.**

Transmission Provider shall charge and Interconnection Customer shall pay the actual costs of the Interconnection Studies. Any difference between the study deposit and the actual cost of the applicable Interconnection Study shall be paid by Interconnection Customer or refunded to Interconnection Customer by Transmission Provider, except as otherwise provided herein, to offset against the cost of any future Interconnection Studies associated with the applicable Interconnection Request prior to beginning of any such future Interconnection Studies. Any invoices for Interconnection Studies shall include a detailed and itemized accounting of the cost of each Interconnection Study. Interconnection Customer shall pay any such undisputed costs within thirty (30) Calendar Days of receipt of an invoice therefore. 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.

**11.3 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 from Transmission Provider that it 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 within the applicable timeframe for such Interconnection Study, then Interconnection Customer may request that Transmission Provider 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 accordance with Article 21 of the GIA (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 work papers, databases, 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 Agreement in Appendix 3. In any case, such third party contract may be entered into with either Interconnection Customer or Transmission Provider at Transmission Provider's discretion. Such third party consultant shall be required to comply with this GIP and Article 21 of the GIA (Subcontractors) as would apply if Transmission Provider were to conduct the Interconnection Study. Third party consultant 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.

## **11.4 Disputes.**

### **11.4.1 Submission.**

In the event either Party has a dispute or asserts a claim that arises out of or in connection with the GIP or its performance, such Party (the "disputing Party") shall provide the other Party with Notice of Dispute. Such dispute or claim shall be referred to a designated senior representative of each Party for resolution on an informal basis promptly after receipt of the Notice of Dispute by the other Party. In the event that the designated representatives are unable to resolve the claim or dispute through unassisted or assisted negotiations within sixty (60) 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 the GIA.

### **11.4.2 External Arbitration Procedures.**

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 select a third arbitrator to chair the arbitration panel within twenty (20) Calendar Days. 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"); provided, however, in the event of a conflict between the Arbitration Rules and the terms of this Section 11.4, the terms of this Section 11.4 shall prevail.

**11.4.3 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.

## **APPENDICES TO GIP**

- APPENDIX 1 INTERCONNECTION REQUEST FOR A GENERATING FACILITY
- Interconnection Request
  - Attachment A – Generating Facility Data
  - Attachment B – Interconnection System Impact Study Agreement
- APPENDIX 2 INTERCONNECTION FACILITIES STUDY AGREEMENT
- APPENDIX 3 AECI TRANSMISSION CONFIDENTIALITY AND NON-DISCLOSURE AGREEMENT
- APPENDIX 4 AECI GENERATOR INTERCONNECTION AGREEMENT

**APPENDIX 1 to GIP  
INTERCONNECTION REQUEST FOR A  
GENERATING FACILITY**

1. The undersigned Interconnection Customer submits this request to interconnect its Generating Facility with the Transmission System pursuant to the Generation Interconnection Procedure and Generation Interconnection Agreement.
  
2. This Interconnection Request is for (check one):  
 A proposed new Generating Facility.  
 An increase in the generating capacity or a Material Modification of an existing Generating Facility.
  
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 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. For new Generating Facility, maximum MW and MVAR electrical output  
  
Summer (net) \_\_\_\_\_ MW      \_\_\_\_\_ MVAR at \_\_\_\_ degrees C  
Winter (net) \_\_\_\_\_ MW      \_\_\_\_\_ MVAR at \_\_\_\_ degrees C  
  
For an increase in generating capacity of an existing Generating Facility;  
Existing output:  
Summer (net) \_\_\_\_\_ MW      \_\_\_\_\_ MVAR at \_\_\_\_ degrees C  
Winter (net) \_\_\_\_\_ MW      \_\_\_\_\_ MVAR at \_\_\_\_ degrees C  
  
Proposed output:  
Summer (net) \_\_\_\_\_ MW      \_\_\_\_\_ MVAR at \_\_\_\_ degrees C  
Winter (net) \_\_\_\_\_ MW      \_\_\_\_\_ MVAR at \_\_\_\_ degrees C
  
  - c. General description of the equipment configuration;

- d. Commercial Operation Date, initial synchronization date and Interconnection Facilities in service date (day, month, 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); and
  - g. Interconnection Customer Data (set forth in Attachment A);
  - h. Primary and Secondary fuel sources;
  - i. Qualifying Facility status including state and/or federal qualifications met (optional);
- 5. Applicable deposit amount as specified in the GIP.
  - 6. Evidence of Site Control as specified in the GIP.
  - 7. This Interconnection Request shall be submitted to the representative indicated below:
    - Associated Electric Cooperative, Inc.
    - Manager, Transmission Services
    - PO Box 754
    - Springfield, MO 65801
  
    - 2814 S Golden Avenue
    - Springfield, MO 65801
  - 8. Representative of Interconnection Customer to contact:

9. This Interconnection Request is submitted by:

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

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

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

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

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

**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 \_\_\_\_\_

**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)**

	<b>DIRECT AXIS</b>	<b>QUADRATURE AXIS</b>
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	$X_{lm}$ _____	

**FIELD TIME CONSTANT DATA (SEC)**

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

**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  
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

- 6 -  
**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 \_\_\_\_\_

**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:

\_\_\_\_\_

Type and manufacturer of wind turbine: \_\_\_\_\_

Type and manufacturer of generator: \_\_\_\_\_

Specify wind generator voltage ride through capability:

Minimum low voltage threshold in percent to enable tripping: \_\_\_\_\_

Minimum low voltage duration in seconds to enable tripping: \_\_\_\_\_

Provide voltage flicker data.

Provide voltage drop out limits expressed in voltage level versus time

Provide frequency drop out limits expressed in frequency versus time

Proposed collector system layout

Note: A completed Siemens/PTI PSS/e data sheet or other compatible formats, such as IEEE or PSLF 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 the Pre-Queue Informational Meeting.

### **SOLAR GENERATORS**

Number of inverters to be interconnected pursuant to this Interconnection Request:

\_\_\_\_\_

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

Inverter manufacturer, type, model name, number, and version:

\_\_\_\_\_

List of adjustable setpoints for the protective equipment or software:

\_\_\_\_\_

Specify inverter voltage ride through capability:

Minimum low voltage threshold in percent to enable tripping: \_\_\_\_\_

Minimum low voltage duration in seconds to enable tripping: \_\_\_\_\_

Provide voltage flicker data.

Provide voltage drop out limits expressed in voltage level versus time

Provide frequency drop out limits expressed in frequency versus time

Provide total harmonic distortion

Provide individual harmonic distortion to the 50<sup>th</sup> harmonic

Provide harmonic distortion at the Point of Interconnection

Proposed collector system layout

Note: A completed Siemens/PTI PSS/e data sheet or other compatible formats, such as IEEE or PSLF 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 the Pre-Queue Informational 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 Interconnection Request to determine if the information designated by (\*) is required.

**Attachment B  
To Appendix 1  
Interconnection Request**

**INTERCONNECTION SYSTEM IMPACT STUDY AGREEMENT**

**THIS AGREEMENT** is made and entered into this \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_ by and between \_\_\_\_\_ ("Interconnection Customer"), a corporation organized and existing under the laws of the State of \_\_\_\_\_, and Associated Electric Cooperative, Inc. ("Transmission Provider") an electric cooperative organized and existing under the laws of the State of Missouri. Interconnection Customer and Transmission Provider each may be referred to as a "Party," or collectively as the "Parties." Any capitalized terms used herein but not defined herein shall have the meaning assigned to such term in the Generator Interconnection Procedure ("GIP") or the Generator Interconnection Agreement ("GIA").

**RECITALS**

**WHEREAS**, Interconnection Customer is proposing to develop a 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 Generating Facility with the Transmission System near \_\_\_\_\_; and

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

**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 the Transmission Provider's GIP.
- 2.0 Interconnection Customer elects and Transmission Provider shall cause to be performed an Interconnection System Impact Study consistent with Section 6 of the GIP.
- 3.0 The scope of the Interconnection System Impact Study shall be subject to the assumptions set forth in Attachment A to this Agreement.

- 4.0 The Interconnection System Impact Study will 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 GIP. 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 Interconnection Customer 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 Interconnection System Impact Study may be extended.
- 5.0 The Interconnection System Impact 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
  - preliminary description of facilities required to interconnect the Generating Facility to the Transmission System and to address the identified short circuit, instability, and power flow issues.
- 6.0 Interconnection Customer shall provide deposits in the amount and timing as specified in Section 3.4.1 of the GIP for the performance of this study.
- 7.0 Miscellaneous.
- 7.1 **Disclaimers:** Transmission Provider's Interconnection System Impact Study shall not be construed as confirming or endorsing the design, or as any warranty of safety, durability, reliability, or suitability of Interconnection Customer's equipment or installation thereof for any use, including the use intended by Interconnection Customer, and Interconnection Customer agrees to release and hold Transmission Provider harmless for any claims or demands arising out of or relating to Interconnection Customer's use of the Interconnection System Impact Study.
- 7.2 **Governing Law:** The validity, interpretation and performance of this Agreement and each of its provisions shall be governed by the applicable laws of the State of Missouri.

- 7.3 **Waiver:** Any waiver at any time by either Party of its rights with respect to the other Party or with respect to any matter arising in connection with this Agreement shall not be considered a waiver with respect to any subsequent default by the other Party.
- 7.4 **Amendment:** This Interconnection System Impact Study Agreement constitutes the entire agreement between the Parties hereto with reference to the subject matter hereof, and no change or modification as to any of the provisions hereof shall be binding on either Party unless reduced to writing and approved by a duly authorized representative of Interconnection Customer and Transmission Provider.
- 7.5 **Assignment:** This Interconnection System Impact Study Agreement shall not be assigned by Interconnection Customer without the prior written consent of Transmission Provider, not to be unreasonably withheld, conditioned or delayed. This Interconnection System Impact Study Agreement, 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.
- 7.6 Intentionally left blank.
- 7.7 **Severability:** In the event that any provision of this Agreement is determined to be void, unlawful, or otherwise unenforceable, that provision shall be severed from the remainder of the Agreement, and replaced automatically by a provision containing terms as nearly like the void, unlawful, or unenforceable provision as possible; and the Agreement, as so modified, shall continue to be in full force and effect.

**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.

**Associated Electric Cooperative, Inc.**

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

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

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

**[Insert name of Interconnection Customer]**

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

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

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

**Attachment A To Interconnection System Impact Study Agreement**

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

The Interconnection System Impact Study will be based upon information provided in the Interconnection Request, subject to any modifications in accordance with Section 4.4 of the GIP, 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]

**INTERCONNECTION FACILITIES STUDY AGREEMENT**

**THIS AGREEMENT** is made and entered into this \_\_\_\_day of \_\_\_\_\_ 200\_, by and between Associated Electric Cooperative, Inc. (“Transmission Provider”) an electric cooperative organized and existing under the laws of the State of Missouri and \_\_\_\_\_ (“Interconnection Customer”) a corporation organized and existing under the laws of the State of \_\_\_\_\_. Interconnection Customer and Transmission Provider may be referred to as a “Party” or collectively as the “Parties”.

**RECITALS**

**WHEREAS**, Interconnection Customer is proposing to develop a Generating Facility near \_\_\_\_\_ consistent with the Interconnection System Impact Study (“System Impact Study”) performed by Transmission Provider dated \_\_\_\_\_; and

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

**WHEREAS**, Transmission Provider has completed an Interconnection 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 (“Study”) to specify and estimate the cost of the equipment, engineering, procurement and construction work needed to implement the conclusions of the Interconnection System Impact Study in accordance with Good Utility Practice to physically and electrically connect the 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 Interconnection Customer elects and Transmission Provider shall cause a Study to be performed. The Study will provide a non-binding estimate of the cost of the equipment, engineering, procurement and construction work needed to implement the conclusions of the Interconnection System Impact Study in accordance with Good Utility Practice to physically and electrically connect the Generating Facility to the Transmission System. The Study shall 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 Providers’

Interconnection Facilities and Network Upgrades necessary to accomplish the interconnection; and a non-binding estimate of the time required to complete the construction and installation of such facilities.

- 2.0 The scope of the Study shall be subject to the assumptions set forth in Attachment A and the data provided in Attachment B.
- 3.0 The Study shall (i) provide a description, estimated cost of, schedule for required facilities to interconnect the Generating Facility to the Transmission System and (ii) address the short circuit, instability (if needed), and power flow issues identified in the Interconnection System Impact Study.
- 4.0 The Interconnection Customer is responsible for the actual expense of the Study. Actual expenses will include, but not limited to, Transmission Provider's engineering labor, overhead, outside engineering services, and other affected transmission system owner/providers' cost. Transmission Provider shall submit an invoice to the Interconnection Customer on a monthly basis for actual expenses incurred in completing the Study. The Interconnection Customer shall pay such invoice within twenty (20) days after the receipt of the invoice. Transmission Provider, upon request of Interconnection Customer, shall provide a non-binding cost estimate of the Study costs.
- 5.0 Transmission Provider shall use reasonable efforts to complete the Study in accordance with the timeframe established by the GIP. If Transmission Provider is unable to complete the Study within the time required, it shall notify Interconnection Customer and provide an estimated completion date and an explanation of the reasons why additional time is required.
- 6.0 Miscellaneous
  - 6.1 Assignment: This Agreement shall be binding upon and inure to the benefit of the permitted successors and assignees of the Parties hereto. Neither Party shall assign this Agreement, or its rights or obligations hereunder, without the prior written consent of the other Party, which consent shall not be unreasonably withheld.
  - 6.2 Indemnification: Each Party hereto shall indemnify and hold harmless the other Party, its officers, directors, agents and employees from and against any and all claims for death or injury to persons or destruction of or damage to property, demands, suits, recoveries, costs and expenses, court costs, attorneys fees, and all other obligations by or to third parties, arising out of or resulting directly or indirectly from the Party's performance of its obligations under this Agreement on behalf of the other Party, except in cases of negligence or intentional wrongdoing by the other Party.
  - 6.3 Governing Law: This Agreement shall be construed in accordance with and

governed by the laws of the State of Missouri.

- 6.4 Waiver: Any waiver at any time by either Party of its rights with respect to the other Party or with respect to any matter arising in connection with this Agreement shall not be considered a waiver with respect to any subsequent default by the other Party.
- 6.5 Parties of Interest: The Parties hereto shall be the only parties in interest to this Agreement. This Agreement is not intended to and shall not create rights of any character whatsoever in favor of any person, corporation, association, entity, or power supplier, other than the Parties hereto, and the obligations herein assumed by the Parties hereto are solely for the use and benefit of said Parties. Nothing herein contained shall be construed as permitting or vesting, or attempting to permit or vest, in any person, corporation, association, entity, or power supplier, other than the Parties hereto, any rights hereunder or in any of the electric facilities owned by said Parties or the use thereof.
- 6.6 Severability: In the event that any provision of this Agreement is determined to be void, unlawful, or otherwise unenforceable, that provision shall be severed from the remainder of the Agreement, and replaced automatically by a provision containing terms as nearly like the void, unlawful, or unenforceable provision as possible; and the Agreement, as so modified, shall continue to be in full force and effect.

**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.

**Associated Electric Cooperative, Inc.**

By:

Title:

Date:

**(Interconnection Customer Name)**

By:

Title:

Date:

**Attachment A**

**ASSUMPTIONS USED IN CONDUCTING THE  
STUDY**

Designation of Point of Interconnection and configuration to be studied

**Attachment B to Appendix 2  
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 Transmission System  
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 the 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:

\_\_\_\_\_



**APPENDIX 3**

**AECI TRANSMISSION CONFIDENTIALITY AND NON-DISCLOSURE AGREEMENT**

## **CONFIDENTIALITY AND NONDISCLOSURE AGREEMENT**

This Confidentiality and Nondisclosure Agreement (this "Agreement") is made this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_ (the "Effective Date") by and between Associated Electric Cooperative, Inc., a Missouri corporation ("Associated"), located at 2814 South Golden, Springfield, Missouri 65807, and \_\_\_\_\_, ("Company"), a \_\_\_\_\_, located at \_\_\_\_\_. Associated and Company are sometimes referred to herein individually as a "Party" and collectively as the "Parties."

A Party providing disclosure of Confidential Information to the Party hereunder, shall sometimes herein be referred to as the "Discloser" and the Party to whom disclosure is made shall sometimes herein be referred to as the "Recipient." It is understood and agreed to that the Discloser and the Recipient would like to exchange certain information that is considered confidential. To ensure the protection of such information and in consideration of the agreement to exchange said information, the parties agree as follows:

1. The confidential information to be disclosed by Discloser under this Agreement ("Confidential Information") includes, and the Recipient has a duty to protect, other confidential and/or sensitive information which is disclosed by Discloser and identified as confidential at the time of disclosure. Confidential Information may be in any form or medium whatsoever, including, without limitation, writings, electronic media, computer programs, logic diagrams, schematics, component specifications, graphs, charts, logs, drawings or other media that may be conveyed orally, in writing, or otherwise.

2. Notwithstanding the provisions of Section 1, the term "Confidential Information" shall not include, and a Recipient shall be under no obligation to maintain in confidence or not use, any information disclosed by Discloser to the extent that such information:

- (i) is or becomes generally known or publicly available through no act or omission on the part of the Recipient in breach of this Agreement; or
- (ii) is known, or becomes known, to the Recipient or its Representatives from a source other than the Discloser or its Representatives, provided that disclosure by such source is not known to be in breach of a confidentiality agreement with the Discloser; or
- (iii) is independently developed by the Recipient or its Representatives without violating any of its obligations under this Agreement; or
- (iv) is legally required to be disclosed by judicial or other governmental action or requested to be disclosed by law, regulation or supervisory authority; provided, however, that prompt notice of such request or requirement shall have been given to Discloser to the extent practicable and permitted by law, regulation or supervisory authority.

3. The Confidential Information may be used by the Recipient in connection with its performance of its business relationship with Discloser and will be kept strictly confidential and not disclosed by the Recipient to any other person, party or entity, except that Confidential Information may be disclosed to any of the Recipient's and its affiliates', officers, employees, consultants, advisors and agents (collectively, its "Representatives") who require access to such information for its use in connection with its performance of its business relationship with Recipient. The Recipient agrees that any of its Representatives to whom Confidential Information is disclosed will be informed of the confidential or proprietary nature thereof and of the Recipient's obligations under this Agreement. The Recipient shall be responsible for any use

or disclosure of Confidential Information by any of its Representatives, except with respect to a Representative that enters or has entered into a confidentiality agreement with the Discloser or agrees in writing to be bound by the provisions hereof that are applicable to Representatives.

4. The Parties agree that:

(i) all rights to Confidential Information disclosed pursuant to this Agreement are reserved to Discloser;

(ii) nothing in this Agreement shall diminish or restrict in any way the rights that Discloser has to conduct its business or to disclose its own Confidential Information to third parties; and

(iii) no license or conveyance of any rights including intellectual property rights relating to the Confidential Information is granted or implied by this Agreement or the disclosure of the Confidential Information to Recipient.

5. This Agreement shall commence as of the date first set forth above and shall continue for the duration of the commercial relationship between the Parties and for an additional one (1) year after the termination or cessation of the commercial relationship. Any claim by Discloser for a breach of this Agreement by Recipient will, however, continue to survive following the one-year period.

6. Nothing in this Agreement shall obligate a Party to disclose any Confidential Information about itself to the other Party, and any disclosure of Confidential Information shall be at each Party's sole discretion. A Discloser makes no representation or warranty as to the accuracy or completeness of any Confidential Information. Neither Party nor any of its respective Representatives will have any liability to the other Party or their Representatives relating to or arising from any use or reliance upon the Confidential Information.

7. Upon Discloser's written request, Recipient shall destroy as promptly as practicable, but in any event within thirty (30) days, all Confidential information received from the Discloser, including all copies of such Confidential Information, all notes or other documents with respect to or reflecting such Confidential Information, and all materials derived from such Confidential Information; provided, however, that the Recipient and its Representatives may retain copies of Confidential Information, subject to this Agreement, in accordance with their internal record retention policies and procedures for legal, compliance or regulatory purposes.

8. This Agreement embodies all of the understandings between the Parties concerning the subject matter hereof, and merges all prior discussions and writings between them as to confidentiality of information other than as expressly provided in this Agreement, or as duly set forth subsequent to the date hereof in writing and signed by both Parties. This Agreement may not be assigned by either Party without the prior written consent of the other party except in connection with the sale of all or substantially all of the business or assets of the assigning Party.

9. The Parties agree that monetary damages would be inadequate to compensate a Party for the other Party's Breach of its obligations. 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 Agreement, which equitable relief shall be granted without bond or proof of damages, and the Recipient 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 Agreement, 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, consequential, or punitive damages of any nature or kind resulting from or arising in connection with this Agreement.

10. This Agreement shall be governed by the laws of the State of Missouri.

11. This Agreement may be signed in counterparts, each of which shall be deemed to be an original and all of which shall constitute one and the same document.

12. The provisions of this Agreement are severable, and if any one or more of such provisions is determined to be judicially unenforceable, the remaining provisions shall nevertheless be binding and enforceable.

IN WITNESS WHEREOF, the parties have signed this Agreement which is effective as the date first set forth above.

**ASSOCIATED ELECTRIC COOPERATIVE, INC.**

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

Name: \_\_\_\_\_

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

( \_\_\_\_\_ )

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

Name: \_\_\_\_\_

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

**APPENDIX 4**

**AECI GENERATOR INTERCONNECTION AGREEMENT (“GIA”)**

**GENERATOR INTERCONNECTION AGREEMENT  
BETWEEN \_\_\_\_\_ &  
ASSOCIATED ELECTRIC COOPERATIVE, INC.**

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## **GENERATOR INTERCONNECTION AGREEMENT**

**THIS STANDARD GENERATOR INTERCONNECTION AGREEMENT** ("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" with a Generating Facility), and Associated Electric Cooperative, Inc., an electric cooperative organized and existing under the laws of the State of Missouri ("Transmission Provider"). 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 in Appendix A to this Agreement; and,

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

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

## **Article 1. Definitions**

**AECI** shall mean Associated Electric Cooperative, Inc.

**Affected System** shall mean an electric system other than the 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 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 having jurisdiction over any Party, its facilities and/or services it provides.

**Applicable Reliability Council** shall mean the Regional Entity, as defined by Section 215 of the Federal Power Act, applicable to the Transmission System. SERC is AECI's reliability council.

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

**Balancing Authority** means the responsible entity with respect to an electrical system or systems bounded by interconnection metering and telemetry, capable of controlling generation to maintain its interchange schedule with other Balancing Authorities and contributing to frequency regulation of the interconnection. A Balancing Authority must be certified by an Applicable Reliability Council.

**Balancing Authority Area** shall mean an electrical system or systems bound by interconnection metering and telemetry, capable of controlling generation to maintain its interchange schedule with other Balancing Authority Areas and contributing to frequency regulation of the interconnection.

**Breach** shall mean the failure of a Party to perform or observe any material term or condition of this Agreement and shall include, but not limited to, the events described in Article 17 (Breach and Default) of this Agreement.

**Breaching Party** shall mean a Party that is in Breach of this Agreement.

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

**Calendar Day** shall mean any day including Saturday, Sunday or a Federal Holiday.

**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 D of this 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.

**Critical Energy Infrastructure Information** shall have the meaning as defined by FERC.

**Default** shall mean the failure of a Breaching Party to cure its Breach in accordance with Article 17 (Breach and Default) of this Agreement.

**Effective Date** shall mean the date on which this Agreement becomes effective upon execution by the Parties.

**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 the Transmission System, Transmission Provider's Interconnection Facilities or the electric systems of others to which the 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 the Interconnection Customer is not obligated by this 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 System to

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

**Facility Connection Requirements (“FAC-001-0”)** shall mean the requirements of the Transmission Provider for facility connections to the Transmission System. FAC-001-0, or its successor document, is posted on the Transmission Provider’s OASIS.

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

**Force Majeure** shall mean an event or circumstance beyond the control of the Party claiming Force Majeure, which, by exercise of due diligence and foresight, could not have been reasonably avoided, including, but not limited to, flood, earthquake, storm, fire, lightning, epidemic, war, riot, civil disturbance, sabotage, strike, breakage or accident to machinery or equipment, and act of God or any other cause beyond the control of the Party claiming Force Majeure. However, the obligation to use due diligence shall not be interpreted to require resolution of labor disputes by acceding to demands of the opposition when such course is inadvisable in the discretion of the Party having such difficulty. A Force Majeure event does not include acts of negligence or intentional wrongdoing by the Party claiming Force Majeure or changes in market conditions, governmental action, or weather conditions that affect the cost of the Interconnection Customer’s supply of energy from the Generating Facility.

**Generating Facility** shall mean Interconnection Customer's \_\_\_\_\_ [type of generation] generating facility, commonly known as \_\_\_\_\_ [insert name of Generating Facility], located at \_\_\_\_\_, \_\_\_\_\_ [insert MO,OK or IA], but shall not include the ICIF.

**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.

**Generator Interconnection Procedures (“GIP”)** shall mean the interconnection procedures to the Transmission System applicable to an Interconnection Request pertaining to a Generating Facility.

**Generator Operator** shall mean the entity that operates the Generating Facility. The Generator Operator is \_\_\_\_\_ [insert Interconnection Customer name].

**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.

**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 \_\_\_\_\_ [insert Interconnection Customer name].

**Interconnection Customer's Interconnection Facilities ("ICIF")** shall mean all facilities and equipment, as identified in Appendix A and Appendix C of this 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 System. Interconnection Customer's Interconnection Facilities are sole-use facilities.

**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 System. Interconnection Facilities are sole use facilities and shall not include Network Upgrades.

**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 Interconnection System Impact Study), the cost of those facilities, and the time required to interconnect the Generating Facility with the Transmission System.

**Interconnection Facilities Study Agreement** shall mean the agreement entered into by the Parties on \_\_\_\_\_, 20\_\_\_\_ [insert date] for the Interconnection Facility Study with regard to the Generating Facility.

**Interconnection Service** shall mean the service provided by the Transmission Provider associated with interconnecting the Generating Facility to the 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 this Agreement.

**Interconnection Study** shall mean any of the following studies: the Interconnection System Impact Study and the Interconnection Facilities Study.

**Interconnection System Impact Study** shall mean an engineering study that evaluates the impact of the proposed interconnection on the safety and reliability of Transmission System and, if applicable, an Affected System. The study shall identify and detail the system impacts that would result if the Generating Facility were interconnected without project modifications or system modifications.

**Interconnection System Impact Study Agreement** shall mean the agreement entered into by the Parties on \_\_\_\_\_, 20\_\_\_\_ [insert date] for the Interconnection System Impact Study with regard to the Generating Facility.

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

**Metering Equipment** shall mean all metering equipment installed or to be installed at the Generating Facility or Interconnection Facilities pursuant to this 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 Corporation or the successor Electric Reliability Organization approved by FERC.

**Network Resource** shall mean any designated generating resource owned, purchased or leased by network load interconnected to the Transmission System or any designated generating resource committed to sell its output on a firm basis via a power purchase agreement to a network load interconnected to the Transmission System. 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 load on a non-interruptible basis.

**Network Resource Interconnection Service** shall mean an Interconnection Service that allows the Interconnection Customer to integrate its Generating Facility with the Transmission System in a manner comparable to that in which the Transmission Provider integrates its generating facilities to serve native load customers. Network Resource Interconnection Service in and of itself does not convey transmission service.

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

**Notice of Dispute** shall mean a written notice of a dispute or claim that arises out of or in connection with this Agreement or its performance.

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

**Point of Change of Ownership** shall mean the point, as set forth in Appendix A and Appendix C to this Agreement, where the ICIF connect to the Transmission Provider's Interconnection Facilities.

**Point of Interconnection** shall mean the point, as set forth in Appendix A and Appendix C to this Agreement, where the Interconnection Facilities connect to the Transmission System.

**Reasonable Efforts** shall mean, with respect to an action required to be attempted or taken by a Party under this 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.

**Reliability Coordinator** shall have the meaning as defined in the NERC document "Glossary of Terms Used in Reliability Standards". Reliability Coordinator typically means the entity that is the highest level of authority who is responsible for the reliable operation of the bulk electric system.

**SCADA** shall mean Supervisory Control and Data Acquisition system.

**SERC** shall mean SERC Reliability Corporation or its successor.

**System Protection Facilities** shall mean the equipment, including necessary protection signal communications equipment, required to protect (1) the 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 System or on other delivery systems or other generating systems to which the Transmission System is directly connected.

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

**Transmission Provider** shall mean Associated Electric Cooperative, Inc.

**Transmission Provider's Interconnection Facilities ("TPIF")** 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 and Appendix C to this Agreement, including any modifications, additions or upgrades to such facilities and equipment. Transmission Provider's Interconnection Facilities are sole use facilities and shall not include Network Upgrades.

**Transmission System** shall mean the bulk interconnected transmission facilities owned, controlled or operated by the Transmission Provider rated at 69 kV and above.

**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.

**Written Authorization** shall mean documentation, in a form sufficient to the Transmission Provider, provided by the Interconnection Customer to the Transmission Provider for Transmission Provider to commence such design, procurement and construction upgrades on Transmission Provider's Interconnection Facilities and Network Upgrades; and, 2) for purposes of Affected Systems, for Interconnection Customer to verify to Transmission Provider that the appropriate agreements have been executed for such design, procurement and construction of Affected System network upgrades.

## **Article 2. Effective Date, Term, and Termination**

**2.1 Effective Date.** This Agreement shall become effective upon the date of execution by the Parties as first written above.

**2.2 Term of Agreement.** Subject to the provisions of Article 2.3 (Termination Procedures), this Agreement shall remain in effect for an initial term of twenty (20) years from the Effective Date or such other longer period as mutually agreed upon by the Parties and shall be automatically renewed for each successive one-year period thereafter until terminated pursuant to Article 2.3 (Termination Procedures) of this Agreement.

### **2.3 Termination Procedures.**

**2.3.1 Written Notice.** This Agreement may be terminated by either Party after the initial term by providing three (3) years written notice to the other Party stating its intention to terminate this Agreement or by mutual consent of both Parties at anytime.

**2.3.2 Failure to Provide Written Authorization to Commence Design, Procurement and Construction Activities.** This Agreement may be terminated by the Transmission Provider upon the failure of the Interconnection Customer to provide Written Authorization to the Transmission Provider to commence design, procurement and construction by the date specified in Appendix B. Termination due to this Article 2.3.2 shall result in the Interconnection Request being withdrawn.

**2.3.3 Default.** Either Party may terminate this Agreement in accordance with Article 17 (Breach and Default) of this Agreement.

**2.3.4 Termination Effective.** Notwithstanding Articles 2.3.1, 2.3.2 and 2.3.3, no termination shall become effective until the Parties have complied with all Applicable Laws and Regulations applicable to such termination.

**2.4 Disconnection Costs.** Upon termination of this Agreement, the Parties will take all appropriate steps to disconnect the 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 Agreement. If both Parties mutually agree to terminate this Agreement, the Parties shall work in good faith in establishing the cost responsibility for disconnection.

**2.5 Survival.** This Agreement 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 Agreement; to permit the determination and enforcement of liability and indemnification obligations arising from acts or events that occurred while this Agreement was in effect; and to permit each Party to have access to the lands of the other Party pursuant to this Agreement or other applicable agreements, to disconnect, remove or salvage its own facilities and equipment.

### **Article 3. Intentionally Left Blank**

### **Article 4. Scope of Service**

**4.1 Interconnection Product Options.** This Agreement provides either Energy Resource Interconnection Service or Network Resource Interconnection Service. The Interconnection Service for this Agreement is shown in Appendix A.

#### **4.1.1 Energy Resource Interconnection Service.**

**4.1.1.1 The Product.** Energy Resource Interconnection Service allows Interconnection Customer to connect the Generating Facility to the Transmission System and be eligible to deliver the Generating Facility's output using the existing firm or non-firm capacity of the Transmission System on an "as available" basis.

**4.1.1.2 Transmission Delivery Service Implications.** Under Energy Resource Interconnection Service, Interconnection Customer will be eligible to inject power from the Generating Facility into and deliver power across the interconnecting 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. No transmission delivery service from the Generating Facility is assured, but Interconnection Customer may obtain point-to-point transmission service pursuant to the 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 Point of Interconnection or to improve its ability to do so, transmission delivery service must be obtained pursuant to the Tariff. The Interconnection Customer's ability to inject its Generating Facility output beyond the Point of Interconnection, therefore, will depend on the existing capacity of the Transmission System at such time as a transmission service request is made that would accommodate such delivery.

To the extent Interconnection Customer enters into an arrangement for long term transmission service for deliveries from the Generating Facility outside the Transmission System, such request may require additional studies and upgrades in order for Transmission Provider to grant such request.

#### **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 Generating Facility in a manner comparable to that in which Transmission Provider integrates its generating facilities to serve native load customers. Network Resource Interconnection Service allows the Generating Facility to be considered as a Network Resource, up to the Generating Facility's full output, on the same basis as existing Network Resources interconnected to Transmission System, and to be studied as a Network Resource.

**4.1.2.2 Transmission Delivery Service Implications.** Network Resource Interconnection Service does not convey a reservation of transmission service to the Interconnection Customer for its Generating Facility. Any native load customer can utilize its existing transmission service agreements to obtain delivery of energy from the Generating Facility in the same manner as it accesses Network Resources. A 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 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 a Generating Facility has not been designated as a Network Resource by any network load, it cannot be required to provide Ancillary Services except to the extent such requirements extend to all generating facilities that are similarly situated.

Once an Interconnection Customer satisfies the requirements for obtaining Network Resource Interconnection Service, any future transmission service request for delivery from the Generating Facility within the 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 Generating Facility be undertaken, regardless of changes in ownership of the Generating Facility. However, the reduction or elimination of congestion or redispatch costs may require additional studies and the construction of additional upgrades. In the event of transmission constraints on the Transmission System, the Generating Facility shall be subject to the applicable congestion management procedures in the Transmission System in the same manner as Network Resources.

To the extent Interconnection Customer enters into an arrangement for long term transmission service for deliveries from the Generating Facility outside the Transmission System, such request may require additional studies.

- 4.2 Provision of Service.** Transmission Provider shall provide Interconnection Service for the Generating Facility at the Point of Interconnection.
- 4.3 Performance Standards.** Each Party shall perform all of its obligations under this Agreement 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 Agreement for its compliance therewith.
- 4.4 No Transmission Delivery Service.** The execution of this Agreement does not constitute a request for, nor the provision of, any transmission delivery service under the 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 Agreement are set forth in Article 13.5 (Transmission Provider Authority). Interconnection Customer shall be paid for such services in accordance with Article 11.5 (Interconnection Customer Compensation).

## **Article 5. Interconnection Facilities Engineering, Procurement and Construction**

- 5.1 General.** Specific responsibilities for procurement, design, construction, ownership, maintenance, and cost allocation for the Interconnection Facilities are listed in Appendix A (Interconnection Facilities and Network Upgrade Responsibility Matrix).

The anticipated In-Service Date, Initial Synchronization Date, Commercial Operation Date and other important milestones are listed in Appendix B (Milestones).

The general design requirements for the Interconnection Facilities and System Protection Facilities are listed in the Facility Connection Requirements.

- 5.2 Transmission Provider's Responsibilities.** Transmission Provider shall design, procure, and construct the TPIF and Network Upgrades, using Reasonable Efforts to complete the TPIF and Network Upgrades by the dates set forth in Appendix B (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 the Transmission Provider reasonably expects that it will not be able to complete Transmission Provider's Interconnection Facilities or 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. The Transmission Provider's responsibilities are further defined in Appendix A (Interconnection Facilities and Network Upgrade Responsibility Matrix).

- 5.3 Interconnection Customer's Responsibilities.** Interconnection Customer, at its own expense, shall design, procure, and construct the ICIF, using Reasonable Efforts to complete the ICIF by the dates set forth in Appendix B (Milestones). Interconnection Customer 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 Interconnection Customer reasonably expects that it will not be able to complete the ICIF by the specified dates, Interconnection Customer shall promptly provide written notice to Transmission Provider and shall undertake Reasonable Efforts to meet the earliest dates thereafter. The Interconnection Customer's responsibilities are further defined in Appendix A (Interconnection Facilities and Network Upgrade Responsibility Matrix).

- 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 Generating Facility. If the 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 Construction Commencement.** The Transmission Provider shall commence design, procurement and construction of the TPIF and Network Upgrades as soon as practicable after all of the following conditions are satisfied, unless the Parties otherwise agree in writing:
- 5.5.1** Transmission Provider and Interconnection Customer have executed this Agreement;
  - 5.5.2** Transmission Provider has received Written Authorization to commence design, procurement and construction from Interconnection Customer by the date specified in Appendix B (Milestones);
  - 5.5.3** Interconnection Customer has provided security to Transmission Provider in accordance with Article 11.3 (Provision of Security) by the date specified in Appendix B (Milestones); and
  - 5.5.4** Necessary real property rights and rights-of-way have been obtained, to the extent required for the construction of the TPIF and Network Upgrades.
- 5.6 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 the TPIF and Network Upgrades 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 the TPIF and Network Upgrades will be required.
- 5.7 Information Exchange.** As soon as reasonably practicable after the Effective Date, the Parties shall exchange information regarding the design and compatibility of the Parties' respective Interconnection Facilities and compatibility of the Interconnection Facilities with the Transmission System and shall work diligently and in good faith to make any necessary design changes.
- 5.8 Limited Operation.** If any of the TPIF, Network Upgrades or Affected System network upgrades are not reasonably expected to be completed prior to the Commercial Operation Date of the Generating Facility, Transmission Provider shall notify the Interconnection Customer of such. At the expense of Interconnection Customer, Transmission Provider will perform operating studies on a timely basis to determine the extent to which the Generating Facility and the ICIF may operate prior to the completion of the TPIF, Network Upgrades or Affected System network upgrades consistent with Applicable

Laws and Regulations, Applicable Reliability Standards, Good Utility Practice, and this Agreement. Transmission Provider shall permit Interconnection Customer to operate the Generating Facility and the ICIF in accordance with the results of such studies.

**5.9 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 and Network Upgrade Responsibility Matrix).

**5.9.1 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.

**5.9.2 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 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.

**5.9.3 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 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 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 Generating Facility. The Interconnection Customer shall provide Transmission Provider specifications for the excitation system, automatic voltage regulator, Generating Facility control and protection settings, transformer tap settings, and communications, if applicable.

- 5.10 Transmission Provider's Interconnection Facilities (“TPIF”) and Network Upgrade Construction.** TPIF and Network Upgrades 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 "as-built" drawings, information and documents for the TPIF.
- 5.11 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 Generating Facility with the Transmission System; (ii) operate and maintain the 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 Agreement. 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.
- 5.12 Lands of Other Property Owners.** If any part of TPIF and/or Network Upgrades is to be installed on property owned by persons other than Interconnection Customer or Transmission Provider, Transmission Provider 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 TPIF and/or Network Upgrades upon such property.
- 5.13 Permits.** Transmission Provider 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.
- 5.14 Taxes.**
- 5.14.1 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 the TPIF 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.

**5.14.2 Indemnification for the Cost Consequences of Current Tax Liability Imposed Upon the Transmission Provider.** Notwithstanding Article 5.14.1, 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 GIA for Interconnection Facilities, as well as any interest and penalties, other than interest and penalties attributable to any delay caused by Transmission Provider.

The indemnification obligation shall terminate at the earlier of (1) the expiration of the ten (10) year testing period and the applicable statute of limitations, 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 5.14.

**5.14.3 Tax Gross-Up Amount.** Interconnection Customer's liability for the cost consequences of any current tax liability under this Article 5.14 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 GIA (without regard to any payments under this Article 5.14) (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 5.14.3 can be expressed as follows:  $((\text{Current Tax Rate} \times (\text{Gross Income Amount} - \text{Present Value of Tax Depreciation})) / (1 - \text{Current Tax Rate}))$ .

**5.15 Tax Status.** Each Party shall cooperate with the other to maintain the other Party's tax status.

**5.16 Modification after Commercial Operation.**

**5.16.1 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 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 a modification to the Generating Facility, Transmission Provider will make Reasonable Efforts to provide, within sixty (60) Calendar Days (or such other time as the Parties may agree), an estimate of any additional modifications to the Transmission System, TPIF or Network Upgrades necessitated by such Interconnection Customer modification and a good faith estimate of the costs thereof.

**5.16.2 Standards.** Any additions, modifications, or replacements made to a Party's facilities shall be designed, constructed and operated in accordance with this Agreement and Good Utility Practice.

**5.16.3 Modification Costs Due to Third Parties.** Interconnection Customer shall not be directly assigned for the costs of any additions, modifications, or replacements that Transmission Provider makes to the TPIF or the Transmission System to facilitate the interconnection of a third party to TPIF or the Transmission System, or to provide transmission service to a third party under the Tariff. Interconnection Customer shall be responsible for the costs of any additions, modifications, or replacements to ICIF that may be necessary to maintain or upgrade such ICIF consistent with Applicable Laws and Regulations, Applicable Reliability Standards or Good Utility Practice.

**5.17 Advanced Construction of Network Upgrades that are an Obligation of an Entity other than the Interconnection Customer.**

**5.17.1 General.** An Interconnection Customer with an executed GIA may request that the 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 the desired In-Service Date of the Generating Facility, and (iii) would otherwise not be completed, pursuant to a contractual obligation of an entity other than the 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 the Interconnection Customer commits to pay Transmission Provider: (i) any associated expediting costs and (ii) the cost of such Network Upgrades.

The Transmission Provider will refund to the Interconnection Customer both the expediting cost and the cost of Network Upgrades, in accordance with Section 11.6.1 of the GIA. Consequently, the entity with a contractual obligation to construct such Network Upgrades that were not originally the responsibility of the Interconnection Customer shall be obligated to pay only that portion of the costs of the Network Upgrades that the Transmission Provider has not refunded to the Interconnection Customer pursuant to Section 11.6.1 of the GIA. Payment by that entity shall be due on the date that it would have been due had there been no request for advance construction. The Transmission Provider shall forward to the 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 the Interconnection Customer. The Transmission Provider then shall refund to that entity the amount that it paid for the Network Upgrades, in accordance with Section 11.6.1 of the GIA.

**5.17.2 Amended Interconnection Study for Advanced Construction of Network Upgrades.** If needed, the existing Interconnection System Impact Study and/or Interconnection Facilities Study will be amended to determine the Network Upgrades and associated cost necessary to support the requested In-Service Date. These amended Interconnection Studies will include those transmission facilities and generating facilities that are expected to be in service on or before the requested In-Service Date.

All costs of the amended Interconnection Studies will be borne by the Interconnection Customer.

## **Article 6. Testing and Inspection**

- 6.1 Pre-Commercial Operation Date Testing and Modifications.** Prior to the Commercial Operation Date, Transmission Provider shall test TPIF and Network Upgrades and Interconnection Customer shall test the Generating Facility and ICIF 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 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 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 (Right to Inspect) shall be deemed to be Confidential Information and treated pursuant to Article 20 (Confidentiality) of this Agreement.

## **Article 7. Metering**

- 7.1 General.** Each Party shall comply with the Applicable Reliability Council and requirements as set forth in the Facility Connection Requirements of AECI. Unless otherwise agreed by the Parties, Transmission Provider shall install Metering Equipment at the Point of Interconnection prior to any operation of the Generating Facility and shall

own, operate, test and maintain such Metering Equipment. Power flows to and from the 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 Agreement, except as provided in Article 7.4 (Testing of Metering Equipment and Meter Failure) 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 and Meter Failure.** Transmission Provider shall inspect and test all Transmission Provider-owned Metering Equipment upon installation and in accordance with Good Utility Practice and Applicable Reliability Council criteria and protocols or at a minimum of once every two years. 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 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 system operator or representative designated by Transmission Provider. Interconnection Customer shall provide standard voice line, dedicated voice line and facsimile communications at its 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's dispatch facility. The data circuit(s) shall extend from the 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.

**8.1.1 SCADA Information.** The Interconnection Customer shall provide, at no cost to the Transmission Provider, the following real-time operating data to the Transmission Provider:

- (a) Communications channel from AECI and AECI BUCC (Back Up Control Center) to Generating Facility.
- (b) Four (4) second scan updates for all analogs and status points in the interconnecting substation.
- (c) Hourly MWh Accumulator.
- (d) Real time Generating Facility real power (MW) and reactive power (MVAR).
- (e) If requested by Transmission Provider, seven days of forecasted real power output on an hourly basis of the Generating Facility. Forecast should be provided no less than once per day.
- (f) Interconnection Facilities status including, but not limited to, meter quality, setpoint control "on/off", setpoint inputs and feedback for voltage and MW control, device status "open/closed", low side GSU breaker status, bus voltages, MW and MVAR line flows.
- (g) Ability to provide voltage control and curtailment of Generating Facility real power via SCADA.
- (h) Pseudo Tie Information, if necessary.
- (i) Power factor at the Point of Interconnection.
- (j) Forced outages resulting in a decrease of the Generating Facility Capacity by more than one (1) MW for a period greater than fifteen (15) minutes.

If the Generating Facility is a wind fueled generating facility, the Interconnection Customer shall provide to the Transmission Provider site specific meteorological data including, but not limited to: temperature, wind speed, wind direction and atmospheric pressure.

If the Generating Facility is a solar generating facility, the Interconnection Customer shall provide to the Transmission Provider site specific meteorological data including, but not limited to: temperature, atmospheric pressure and cloud cover.

Data required pursuant to this Article 8.1.1 will be in a format specified by the Transmission Provider. This list of data may be amended by the Joint Operating Committee per Article 24.1.1.

**8.2 Remote Terminal Unit.** Prior to the Initial Synchronization Date of the 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 (Interconnection Customer Obligations). 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.

## **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.** Interconnection Customer shall make all necessary arrangements, including but not limited to those set forth in Article 7 (Metering) and Article 8 (Communications) of this Agreement to place the Generating Facility in a Balancing Authority Area. At least six (6) months prior to Initial Synchronization Date,

or at a date mutually agreeable to both Parties, Interconnection Customer shall notify Transmission Provider in writing of the Balancing Authority Area in which the Generating Facility will be located.

**9.3 Transmission Provider Obligations.** Transmission Provider shall cause the Transmission System and TPIF to be operated, maintained and controlled in a safe and reliable manner and in accordance with this Agreement and Good Utility Practice. Transmission Provider may provide operating instructions to Interconnection Customer consistent with this Agreement 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 Generating Facility and ICIF in a safe and reliable manner and in accordance with this Agreement and Good Utility Practice. Interconnection Customer shall operate the Generating Facility and ICIF in accordance with all applicable requirements of the Balancing Authority Area of which it is part.

**9.5 Start-Up and Synchronization.** Consistent with the Parties' mutually acceptable procedures, the Interconnection Customer is responsible for the proper synchronization of the Generating Facility to the Transmission System.

## **9.6 Reactive Power**

**9.6.1 Power Factor Design Criteria.** Interconnection Customer shall design the 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 generators in the Balancing Authority Area on a comparable basis. A non-synchronous generator shall maintain a power factor with the range of 0.95 leading to 0.95 lagging, measured at the high side of the GSU as defined in this GIA.

**9.6.2 Voltage Schedules.** Once the Interconnection Customer has synchronized the Generating Facility with the Transmission System, the Transmission Provider shall require the Interconnection Customer to operate the Generating Facility to produce or absorb reactive power within the design limitations of the 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 Balancing Authority Area in an equitable and not unduly discriminatory manner. Transmission Provider shall exercise Reasonable Efforts to provide the 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 Generating Facility to maintain the specified output voltage or power factor at the

Point of Interconnection within the design limitations of the Generating Facility set forth in Article 9.6.1 (Power Factor Design Criteria). If the Interconnection Customer is unable to maintain the specified voltage or power factor, it shall promptly notify the Transmission Provider's system operator.

**9.6.2.1**        **Governors and Regulators.** Whenever the Generating Facility is operated in parallel with the Transmission System and the speed governors (if installed on the generating unit pursuant to Good Utility Practice) and voltage regulators are capable of operation, the Interconnection Customer shall operate the Generating Facility with its speed governors and voltage regulators in automatic operation. If the Generating Facility's speed governors and voltage regulators are not capable of such automatic operation, the Interconnection Customer shall immediately notify the Transmission Provider's system operator, or its designated representative, and ensure that such Generating Facility's reactive power production or absorption (measured in MVARs) are within the design capability of the Generating Facility's generating unit(s) and steady state stability limits. Interconnection Customer shall not cause its Generating Facility to disconnect automatically or instantaneously from the Transmission System or trip any generating unit comprising the 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 Balancing Authority Area on a comparable basis.

## **9.7      Outages and Curtailments.**

### **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 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 Planned 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 Generating Facility to the Transmission Provider in accordance with the requirements the Facility Connection Requirements of AECl. Interconnection Customer shall update its planned maintenance schedules as necessary. Transmission Provider may request the 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.

**9.7.1.3 Outage Restoration.** If an outage on a Party's Interconnection Facilities 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 Curtailment of Service.** If required by Good Utility Practice to do so, and/or directed by the Transmission Provider's Reliability Coordinator, Transmission Provider may require the Interconnection Customer to curtail or reduce deliveries of electricity if such delivery of electricity could adversely affect the Transmission Provider's ability to perform such activities as are necessary to safely and reliably operate and maintain the Transmission System or the bulk electric system. The following provisions shall apply to any curtailment or reduction permitted under this Article 9.7.2 (Curtailment of Service):

**9.7.2.1** The curtailment or reduction shall continue only for so long as reasonably necessary under Good Utility Practice;

**9.7.2.2** Any such curtailment or reduction shall be made on an equitable, non-discriminatory basis with respect to all generating facilities directly connected to the Transmission System, and/or as directed by the Transmission Provider's Reliability Coordinator via the Transmission Provider's system operator;

**9.7.2.3** When the curtailment 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 or reduction, and, if known, its expected duration;

**9.7.2.4** The Parties shall cooperate and coordinate with each other to the extent necessary in order to restore the Generating Facility, Interconnection Facilities, and the Transmission System to their normal operating state, consistent with system conditions, Good Utility Practice and equipment operating limits.

**9.8 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 Generating Facility as required by the Applicable Reliability Council to ensure "ride through" capability of the Transmission System. 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.

**9.9 System Protection and Other Control Requirements.**

**9.9.1 System Protection Facilities.** Interconnection Customer shall, at its expense, install, operate and maintain System Protection Facilities as a part of the Generating Facility or ICIF. Transmission Provider shall install at Interconnection Customer's expense any System Protection Facilities that may be required on TPIF or the Transmission System as a result of the interconnection of the Generating Facility and ICIF.

**9.9.2** Each Party's protection facilities shall be designed and coordinated with other systems in accordance with Good Utility Practice.

**9.9.3** Each Party shall be responsible for protection of its facilities consistent with Good Utility Practice.

**9.9.4** Each Party's protective relay design shall incorporate the necessary test switches to perform the tests required in Article 6 (Testing and Inspection). 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.

- 9.9.5** Each Party will test, operate and maintain System Protection Facilities in accordance with Good Utility Practice.
- 9.9.6** 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.
- 9.10 Requirements for Protection.** In compliance with Good Utility Practice, the Interconnection Customer shall provide, install, own, and maintain relays, circuit breakers and all other devices necessary to remove any fault contribution of the Generating Facility to any short circuit occurring on the Transmission System not otherwise isolated by the 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 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 Generating Facility and the 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 Generating Facility and the Interconnection Customer's other equipment if conditions on the Transmission System could adversely affect the Generating Facility.
- 9.10.1** If a System Protection Facility or equipment failure on the Generating Facility reduces Transmission System reliability, the Generator Operator shall notify the Transmission Provider via email, documented phone conversation or formal letter. The Generator Operator shall take corrective action as soon as possible.
- 9.10.2** The Generator Operator shall coordinate all new System Protection Facilities with the Transmission Provider via email, documented phone conversations or formal letter.
- 9.10.3** The Generator Operator shall notify the Transmission Provider in advance of changes in generation or operating conditions that could require changes to the System Protection Facilities of the Transmission Provider.
- 9.11 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.

**9.12 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.

**9.13 Use of Interconnection Facilities by Third Parties.**

**9.13.1 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 Generating Facility to the Transmission System and shall be used for no other purpose.

**9.14 Disturbance Analysis Data Exchange.** The Parties will cooperate with one another in the analysis of disturbances to either the Generating Facility or the 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.

**9.15 Ability to Reduce Generation Output.** The Generating Facility shall have the ability to immediately, or other time frame as specified by the Transmission Provider, reduce generation output in the event of an Emergency Condition or curtailment. The Transmission Provider will take into account Generating Facility operational limitations when directing reduction in generation output. The Interconnection Customer may accomplish this, at its discretion, by 1) Providing continuous staffing of the Generating Facility, or 2) Controlling generation output from a remote dispatch center.

**Article 10. Maintenance**

**10.1 Transmission Provider Obligations.** Transmission Provider shall maintain the Transmission System and TPIF in a safe and reliable manner and in accordance with this Agreement. By mutual agreement between the Transmission Provider and Interconnection Customer, Interconnection Customer may enter into a separate agreement with a third Party for maintenance on TPIF. Notwithstanding any such agreement, Interconnection Customer will be responsible for all maintenance costs associated with the TPIF.

- 10.2 Interconnection Customer Obligations.** Interconnection Customer shall maintain the Generating Facility and ICIF in a safe and reliable manner and in accordance with this Agreement.
- 10.3 Coordination.** The Parties shall confer regularly to coordinate the planning, scheduling and performance of preventive and corrective maintenance on the Generating Facility and the Interconnection Facilities. See Article 9.7.1.2 (Planned Outage Schedules) for additional details.
- 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, the Interconnection Customer shall be responsible for all reasonable expenses including overheads, associated with: (1) owning, operating, maintaining, repairing, and replacing ICIF; and (2) operation, maintenance, repair and replacement of TPIF.

## **Article 11. Performance Obligation**

- 11.1 Interconnection Customer Interconnection Facilities.** Interconnection Customer shall design, procure, construct, install, own and/or control the Interconnection Customer Interconnection Facilities described in Appendix A, at its sole expense.
- 11.2 Transmission Provider's Interconnection Facilities and Network Upgrades.** Transmission Provider shall design, procure, construct, install, maintain, own and/or control the TPIF, as specified in Appendix A, at the sole expense of the Interconnection Customer. Transmission Provider shall design, procure, construct, install, own and/or control the Network Upgrades, as specified in Appendix A. Unless the Transmission Provider elects to fund the capital for the Network Upgrades or TPIF, they shall be solely funded by the Interconnection Customer.
- 11.3 Provision of Security.** The Interconnection Customer shall provide the Transmission Provider a letter of credit or other form of security that is reasonably acceptable to the Transmission Provider for securing the Interconnection Customer's obligations under this Agreement by the date(s) set forth in Appendix B (Milestones) for providing such

security deposit. Such security shall be in an amount sufficient to cover the costs for constructing, procuring and installing the applicable portion of TPIF and Network Upgrades and shall be reduced on a dollar-for-dollar basis for payments made to the Transmission Provider for these purposes. The letter of credit must be issued by a financial institution reasonably acceptable to the Transmission Provider and must specify a reasonable expiration date.

**11.4 Affected Systems.** The Interconnection Customer shall be solely responsible for entering into an agreement with an Affected System Operator for payment of all costs for the study, design, procurement, construction, installation, ownership and/or control of Affected System network upgrades identified by interconnection studies associated with this Generator Facility interconnection.

**11.5 Interconnection Customer Compensation.** If the Transmission Provider requests or directs the Interconnection Customer to provide emergency energy assistance pursuant to Article 13.5.1 (Transmission Provider Authority) of this Agreement, the Transmission Provider shall compensate the Interconnection Customer the higher of 1) 110% of the Transmission Provider's incremental cost or 2) 110% of the verifiable cost of the resource(s) used to provide emergency energy assistance.

**11.6 Transmission Credits and Construction of Network Upgrades.**

**11.6.1 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, if any, for the Network Upgrades 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 the Tariff for transmission service sourced from the Generating Facility. Interconnection Customer may assign such repayment rights to any person.

Notwithstanding the foregoing, Interconnection Customer and Transmission Provider may adopt any alternative payment schedule that is mutually agreeable so long as the Transmission Provider takes 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 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 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 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.

**11.6.2 Special Provisions for Affected Systems.** Interconnection Customer is solely responsible for obtaining credit or repayment, if any, from an Affected System Operator for any network upgrades paid for by the Interconnection Customer on the Affected System.

**11.6.3 Relinquishment of Transmission Rights.** Notwithstanding any other provision of this GIA, 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 Generating Facility.

## **Article 12. Invoice**

**12.1 General.** Each Party shall submit to the other Party invoices of amounts due pursuant to Appendix A, Payment Schedule. Each invoice shall state the period 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 Agreement, 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 (6) months after completion of the construction of TPIF and Network Upgrades, Transmission Provider shall provide an invoice of the final cost of the construction of TPIF and 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. If applicable, 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 receipt of such final construction invoice. If applicable, Interconnection Customer shall pay to Transmission Provider any amount by which the actual payment by Interconnection Customer for estimated costs is less than the actual costs of construction within thirty (30) Calendar Days of the receipt of such final construction invoice.

- 12.3 Payment.** Invoices shall be rendered to the paying Party at the address specified in Appendix E (Addresses for Delivery of Notices and Billings). 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 Agreement.
- 12.4 Billing Disputes.** In the event of a billing dispute between Transmission Provider and Interconnection Customer, Transmission Provider shall continue to provide Interconnection Service under this Agreement 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 (Breach and Default). 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 the lower of the amount of interest earned in the interest-bearing account in which Transmission Provider shall have deposited such amount or the amount of interest calculated in accordance 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" is defined in Article 1 (Definitions)
- 13.2 Obligations.** Each Party shall comply with the Emergency Condition procedures of the Applicable Reliability Council, NERC, 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 TPIF or the Transmission System that may reasonably be expected to affect Interconnection Customer's operation of the Generating Facility or ICIF. Interconnection Customer shall notify Transmission Provider promptly when it becomes aware of an Emergency Condition that affects the Generating Facility or ICIF that may reasonably be expected to affect the Transmission System or TPIF. 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.
- 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 Generating Facility or ICIF 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 TPIF 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 TPIF, (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 Generating Facility or ICIF.

Transmission Provider may, on the basis of technical considerations, require the 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 Generating Facility; implementing a reduction or disconnection pursuant to Article 13.5.2 (Reduction and Disconnection); directing Interconnection Customer to assist with black start (if available) or restoration efforts; or altering the outage schedules of the Generating Facility and ICIF. Interconnection Customer shall comply with all of Transmission Provider's operating instructions concerning Generating Facility real power and reactive power output within the manufacturer's design limitations of the 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 Generating Facility or ICIF, when such, reduction or disconnection is necessary under Good Utility Practice due to Emergency Conditions. 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 Generating Facility, the Interconnection Facilities, and the Transmission System to their normal operating state as soon as practicable consistent with Good Utility

Practice. These rights under this Article 13.5.2 (Reduction and Disconnection) are separate and distinct from any right of curtailment of Transmission Provider pursuant to the Tariff or Article 9.7.2 (Curtailment of Service) of this Agreement.

**13.6 Interconnection Customer Authority.** Consistent with Good Utility Practice and the Agreement, Interconnection Customer may take actions or inactions with regard to the Generating Facility or ICIF during an Emergency Condition in order to (i) preserve public health and safety, (ii) preserve the reliability of the Generating Facility or ICIF, (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 TPIF. Transmission Provider shall use Reasonable Efforts to assist Interconnection Customer in such actions.

**13.7 Limited Liability.** 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. Governing Law**

**14.1 Governing Law.** This Agreement shall be interpreted and governed by the laws of the State of Missouri.

#### **Article 15. Notices.**

**15.1 General.** Unless otherwise provided in this Agreement, 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 E (Addresses for Delivery of Notices and Billings).

Either Party may change the notice information in this Agreement 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 E (Addresses for Delivery of Notices and Billings).

**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 E (Addresses for Delivery of Notices and Billings).

**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 (Operations) and 10 (Maintenance).

**Article 16. Force Majeure**

**16.1 Remedial Action.** A Party shall not be liable to the other Party in the event it is prevented from performing its obligations hereunder in whole or part due to an event of Force Majeure. The Party rendered unable to fulfill any obligation by reason of Force Majeure shall take all action necessary to remove such inability with speed and diligence in accordance with Good Utility Practice. The nonperforming Party shall be prompt and diligent in attempting to remove the cause of its failure to perform, and nothing herein shall be construed as permitting that Party to continue to fail to perform after said cause has been removed.

**16.2 Notice.** In the event of any delay or nonperformance resulting from Force Majeure, the Party suffering the event of Force Majeure shall, as soon as practicable after the occurrence of the Force Majeure event, shall notify the other Party in writing of the nature, cause, date of commencement thereof, and the anticipated extent of any delay or interruption in performance.

**Article 17. Breach and Default**

**17.1 Breach and Default.** A Party shall be considered in Breach of this Agreement upon:

- (a) The failure to comply with any material term or condition of this Agreement or any other agreement between the Parties, including but not limited to any material Breach of a representation, warranty or covenant made in this Agreement or any other agreement between the Parties;
- (b) The Party (i) becoming insolvent; (ii) filing a voluntary petition in bankruptcy under any provision of any federal or state bankruptcy law or consenting to the filing of any bankruptcy or reorganization petition against it under any similar law; (iii) making a general assignment for the benefit of its creditors; or (iv) consenting to the appointment of a receiver, trustee or liquidator;
- (c) The purported assignment of this Agreement in a manner inconsistent with the terms of this Agreement;
- (d) The failure of the Party to provide such access rights, or the Party's attempt to revoke or terminate such access rights, as provided under this Agreement; or
- (e) The failure of the Party to provide information or data to the other Party as required under this Agreement, provided that the Party entitled to the information or data under this Agreement require such information or data to satisfy its obligations under this Agreement.

**17.2 Cure and Default.** Upon the occurrence of an event of Breach, the Party not in Breach may give written notice of the Breach to the Breaching Party. Such notice shall set forth,

in reasonable detail, the nature of the Breach, and where known and applicable, the steps necessary to cure such Breach. Upon an occurrence described in part (b) of Article 17.1 (Breach and Default), of this Agreement, the Party experiencing such occurrence shall notify the other Party in writing within seven (7) days after the commencement of such occurrence. Upon receiving written notice of a Breach hereunder, or providing notice pursuant to the previous sentence, the Breaching Party shall immediately commence in good faith all steps as are reasonable and appropriate to cure the Breach and shall thereafter diligently pursue such action to completion. In the event the Breaching Party fails to cure the Breach pursuant to Article 17.1 (a) (c) (d) or (e) within thirty (30) days of notification or fails to cure the Breach pursuant to Article 17.1(b) within five (5) days of notification, the Breaching Party shall be in Default of this Agreement.

**17.3 Termination and Remedies.** Upon the occurrence of an event of Default, the non-Defaulting Party shall be entitled to immediately terminate this Agreement and exercise such other rights and remedies as it may have in equity or at law including but not limited to damages arising out of the Default.

## **Article 18. Indemnity, Limitation of Liability, Incidental or Consequential Loss**

**18.1 Indemnity.** Each Party shall fully indemnify and hold harmless the other Party, its shareholders, members, directors, partners, stakeholders, officers, managers, employees, agents, representatives, servants, its affiliated and associated companies, their respective shareholders, members, directors, partners, stakeholders, officers, managers, employees, agents, representatives, servants, and/or their assigns, from and against any and all claims, demands, liability, losses, damage, costs or expenses (including attorneys' fees and other costs of defense), of any nature or kind whatsoever, including, but not limited to, claims, demands and/or liability for personal injury to (including death of) any person whomever (including payments and awards made to a Party's employees or other under any workers' compensation law or under any plan for employees' disability and death benefits) and for damage to any property whatsoever (including the Interconnection Facilities, and the Transmission System) arising out of or otherwise resulting from the use, ownership, maintenance, or operation of the indemnifying Party's Interconnection Facilities, regardless of whether such claims, demands or liability are alleged to have been caused by the indemnified Party's action or inaction, except for claims arising out of the negligence, willful misconduct, intentional wrongdoing of the Party claiming indemnification.

**18.2 Limitation of Liability.** The Parties confirm that the express remedies and measures of damages provided in this Agreement satisfy the essential purposes hereof. For Breach of any provision for which an express remedy or measure of damages is herein provided, such express remedy or measure of damages shall be the sole and exclusive remedy, the liable Party's liability shall be limited as set forth in such provision, and all other remedies or damages at law or in equity are waived unless otherwise provided in this Agreement. If no remedy or measure of damages is expressly herein provided, the liable Party's liability shall be limited to direct actual damages only. Except as provided in

Article 18.1 (Indemnity) neither Party shall be liable to the other Party for consequential, incidental, punitive, exemplary or indirect damages, lost profits, or business interruption damages, whether by statute, in tort or in contract, under this Agreement, any indemnity provision, or otherwise.

**18.3 Incidental or Consequential Loss.** Neither Party shall be liable in statute, contract, in tort (including negligence), strict liability, or otherwise to the other Party, its agents, representatives, affiliated and associated companies, and/or assigns, for any incidental or consequential loss or damage whatsoever, including, but not limited to, loss of profits or revenue on work not performed, for loss of use of, or under-utilization of the other Party's facilities, or loss of revenues or loss of anticipated profits, resulting from either Party's performance or non-performance of an obligation imposed on it by this Agreement.

## **Article 19. Assignment**

**19.1 Assignment.** This Agreement shall inure to the benefit of and be binding upon the Parties and their respective successors and permitted assigns. Neither Party shall assign this Agreement or any of its rights or obligations hereunder without the prior written consent of the other Party, which consent shall not be unreasonably withheld or delayed. Notwithstanding the foregoing, a Party may, without the consent of the other Party transfer, sell, pledge, encumber, or assign this Agreement or the accounts, revenues, or proceeds hereof or thereof in connection with any financing or other financial arrangements without relieving itself from liability hereunder.

## **Article 20. Confidentiality**

**20.1 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 Agreement.

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 20 (Confidentiality) 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.

**20.2 Term.** During the term of this Agreement, and for a period of three (3) years after the expiration or termination of this Agreement, except as otherwise provided in this Article

20 (Confidentiality), each Party shall hold in confidence and shall not disclose to any person any Confidential Information that it may have received.

- 20.3 Scope.** Confidential Information shall not include information that the receiving Party can demonstrate: (i) is generally available to the public other than as a result of an unauthorized disclosure by the receiving Party; (ii) was in the lawful possession of the receiving Party on a non-confidential basis before receiving it from the disclosing Party; (iii) 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 other Party to keep such information confidential; (iv) was independently developed by the receiving Party without reference to Confidential Information of the disclosing Party; or (v) is, or becomes, publicly known, through no wrongful act or omission of the receiving Party or Breach of this Agreement.
- 20.4 Release of Confidential Information.** Neither Party shall release or disclose Confidential Information to any other person, except to its employees, accountants, attorneys, consultants or to other persons or entities who may be or considering providing financing to or equity participation with any Party, having a need to know, the Confidential Information and agreeing to keep such Confidential Information confidential pursuant to the terms hereof. 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 20 (Confidentiality).
- 20.5 Disclosure to Governmental Authorities.** If any Governmental Authority requires either Party 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, at its sole expense, seek a protection waiver of compliance with the disclosure requirement. Notwithstanding the foregoing, the Party to whom the disclosure request applies may disclose Confidential Information that the Party is legally compelled to disclose if no protective order or waiver is received prior to the date on which disclosure is required. Each Party shall use reasonable effort to obtain reliable assurance that confidential treatment will be accorded any Confidential Information so furnished.

## **Article 21. Subcontractors**

- 21.1 General.** Nothing in this Agreement shall prevent a Party from utilizing the services of any subcontractor as it deems appropriate to perform its obligations under this Agreement; provided, however, that each Party shall require its subcontractors to comply with all applicable terms and conditions of this Agreement in providing such services and each Party shall remain primarily liable to the other Party for the performance of such subcontractor.
- 21.2 Responsibility of Principal.** The creation of any subcontract relationship shall not relieve the hiring Party of any of its obligations under this Agreement. 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 (Interconnection Facilities Engineering, Procurement and Construction) of this Agreement. Any applicable obligation imposed by this Agreement upon the hiring Party shall be equally binding upon, and shall be construed as having application to, any subcontractor of such Party.

## **Article 22. Disputes**

**22.1 Submission.** In the event either Party has a dispute, or asserts a claim, that arises out of or in connection with this Agreement or its performance, such Party (the "disputing Party") shall provide the other Party with Notice of Dispute. If Parties are unable to resolve the claim or dispute, then each Party may exercise whatever rights and remedies it may have in equity or at law consistent with the terms of this Agreement.

**22.2 Costs.** Each Party shall be responsible for its own costs incurred during the dispute process.

## **Article 23. Representations, Warranties, and Covenants**

**23.1 General.** Each Party makes the following representations, warranties and covenants:

**23.1.1 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 Generating Facility, Interconnection Facilities 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 Agreement 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 Agreement.

**23.1.2 Authority.** Such Party has the right, power and authority to enter into this Agreement, to become a Party hereto and to perform its obligations hereunder. This Agreement 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).

**23.1.3 No Conflict.** The execution, delivery and performance of this Agreement 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.

## **Article 24. Joint Operating Committee**

**24.1 Joint Operating Committee.** 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 Agreement. 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:

**24.1.1** Establish data requirements and operating record requirements.

**24.1.2** Review the requirements, standards, and procedures for data acquisition equipment, protective equipment, and any other equipment or software.

**24.1.3** 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.

**24.1.4** Coordinate the scheduling of maintenance and planned outages on the Interconnection Facilities, the Generating Facility and other facilities that impact the normal operation of the interconnection of the Generating Facility to the Transmission System.

**24.1.5** Ensure that information is being provided by each Party regarding equipment availability.

**24.1.6** Perform such other duties as may be conferred upon it by mutual agreement of the Parties.

## **Article 25. Miscellaneous**

- 25.1 Conflicts.** In the event of a conflict between the body of this Agreement and any attachment, appendices or exhibits hereto, the terms and provisions of the body of this Agreement shall prevail and be deemed the final intent of the Parties.
- 25.2 Entire Agreement.** This Agreement, 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 Agreement. 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 Agreement.
- 25.3 Severability.** Should any provision of the Agreement be or become void, illegal, or unenforceable, the validity or enforceability of the other provisions of the Agreement shall not be affected and shall continue in force. The Parties will, however, use their best endeavors to agree on the replacement of the void, illegal, or unenforceable provision(s) with legally acceptable clauses which correspond as closely as possible to the sense and purpose of the affected provision and the Agreement as a whole.
- 25.4 No Third Party Beneficiaries.** This Agreement 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.
- 25.5 Waiver.** The failure of a Party to this Agreement to insist, on any occasion, upon strict performance of any provision of this Agreement 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 Agreement 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 Agreement. Termination or Default of this Agreement 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 Agreement shall, if requested, be provided in writing.

- 25.6 Headings.** The descriptive headings of the various Articles of this Agreement have been inserted for convenience of reference only and are of no significance in the interpretation or construction of this Agreement.
- 25.7 Amendment.** The Parties may by mutual agreement amend this Agreement and Appendices by a written instrument duly executed by the Parties.

**25.8 No Dedication.** No undertaking by one Party to the other under any provision of the Agreement shall constitute the dedication of that Party's system or any portion thereof to the other Party or to the public or affect the status of Transmission Provider as a rural electric cooperative or Interconnection Customer as an independent individual or entity and not a public utility.

**25.9 Relationship of Parties.**

- (a) The duties, obligations, and liabilities of the Parties are intended to be several and not joint or collective. The Agreement shall not be interpreted or construed to create an association, joint venture, fiduciary relationship or partnership between Transmission Provider and Interconnection Customer or to impose any partnership obligation or liability or any trust or agency obligation or relationship upon either Party. Transmission Provider and Interconnection Customer shall not 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.
- (b) The relationship between Transmission Provider and Interconnection Customer shall be that of contracting party to independent contractor. Accordingly, subject to the specific terms of the Agreement, Transmission Provider shall have no general right to prescribe the means by which Interconnection Customer shall meet its obligations under the Agreement.
- (c) Interconnection Customer shall be solely liable for the payment of all wages, taxes, and other costs related to the employment of persons to perform Interconnection Customer's obligations under the Agreement, including all federal, state, and local income, social security, payroll, and employment taxes, and statutorily mandated workers' compensation coverage. None of the persons employed by Interconnection Customer shall be considered employees of Transmission Provider for any purpose; nor shall Interconnection Customer represent to any Person that he or she is or shall become an employee or agent of Transmission Provider.

**25.9 Audit Rights.** Subject to the requirements of confidentiality under Article 20 of this GIA, each Party shall have the right, during normal business hours and no more frequently than annually, and upon prior reasonable notice to another Party, to audit at its own expense that other Party's accounts and records pertaining to either Party's performance or either Party's satisfaction of obligations under this GIA. Such audit rights shall include audits of the other Party's costs, calculation of invoiced amounts, Transmission Provider's efforts to allocate responsibility for interruption or reduction of generation on the Transmission System, and each Party's action 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 GIA. Each Party shall keep such accounts and records for a period

of 24 months after final invoice for generator interconnection facilities and for a period of 24 months, for all other invoice(s) and/or event(s) for which the audit is sought.

**IN WITNESS WHEREOF**, the Parties have executed this Agreement in duplicate originals, each of which shall constitute and be an original effective Agreement between the Parties.

**Associated Electric Cooperative, Inc.**

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

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

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

**[Insert name of Interconnection Customer]**

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

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

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

## Appendix A

### Interconnection Facilities and Network Upgrade Responsibility Matrix For:

Generating Facility Name: \_\_\_\_\_  
Generating Facility Capacity: \_\_\_\_\_  
Location: \_\_\_\_\_  
Capacity: \_\_\_\_\_MW  
Type: \_\_\_\_\_  
Interconnection Service (Check One): \_\_\_\_\_Energy Resource  
\_\_\_\_\_Network Resource

#### 1. Interconnection Facilities:

(a) [insert Interconnection Customer's Interconnection Facilities]:

(b) [insert Transmission Provider's Interconnection Facilities]:

#### 2. Network Upgrades:

#### 3. Responsibility Matrix

(Note: Include Point of Change of Ownership and Point of Interconnection in the description of the Interconnection Facilities)

Exhibit A		Responsibility Matrix														
EXAMPLE ONLY		(Reference IPP Project)														
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(k)	(l)	(m)	(n)	(o)	
Item No.	Description of Major Facilities	Initial Installation					O&M					Note/Comment				
		Phases				Performed by	Reimbursable	Reimbursable Est Cost	Owned by		Performed by		Reimb.			
		Ev	E	P	C	AECI	Interconnection Customer (IC)	to AECI	x \$1,000	AECI	IC	AECI	IC	to AECI		
<b>AECI Interconnection Facilities (Reference Drawings for Switching Station and Communications)</b>																
A1	Design & Construct (Name) 161 kV Switching Station	X	X	X	X	X						X		X		X
A2	Design & Construct XX Miles 161 kV (From/To)	X	X	X	X	X						X		X		X
A3	161-kV interchange metering	X	X	X	X	X						X		X		X
A4	Protection & Controls Equipment at (Name) 161 kV Switching Station	X	X	X	X	X			X			X		X		X
A5	RTU and communications equipment	X	X	X	X	X			X			X		X		X
A6																
A10																
<b>Interconnection Customer's Interconnection Facilities (Reference Drawing XXX)</b>																
B1	Design and Construct 161/34 kV (Name) Substation	X	X	X	X		X					X		X		
B2	Check Metering (optional)	X	X	X	X		X					X		X		
B3	AC station service facilities (for AECI's and IPP's use)	X	X	X	X		X					X		X		
B4	Station Service Metering Installations (two sets)	X	X	X	X		X					X		X		X
B5	Protection & Controls Equipment at (Name) 161 kV Substation	X	X	X	X		X					X		X		
<b>Estimated Total Reimbursable Costs:</b>																
<b>Notes:</b>		Each line item listed above as "Major Facilities" also includes various miscellaneous facilities and equipment (such as relays, switches, wiring, bus work, etc.) that are normally considered an integral or incidental part of the installation. Also, appropriate drawings, contract exhibits, and project scoping materials should be referenced for detailed description of the work involved.														
		IC = Interconnection Customer, TC = Transmission Credit, Ev = environmental, E = engineering, P = procurement, C = construction, O&M = operation and maintenance														

#### 4. Payment Schedule (Sample)

		<b>Payment for Estimated Project Expenditures</b>	
<b>Payment No.</b>	<b>Due Date</b>	<b>Project</b>	<b>Cumulative Payments</b>
1	XXXX	\$500,000	<b>\$500,000</b>
2	XXXX	\$300,000	<b>\$800,000</b>
3	XXXX	\$500,000	<b>\$1,300,000</b>
4	XXXX	\$250,000	<b>\$1,550,000</b>
5	XXXX	\$500,000	<b>\$2,050,000</b>
6	XXXX	\$700,000	<b>\$2,750,000</b>
7	XXXX	\$500,000	<b>\$3,250,000</b>
8	XXXX	\$400,000	<b>\$3,650,000</b>
9	XXXX	\$500,000	<b>\$4,150,000</b>
10	XXXX	\$500,000	<b>\$4,650,000</b>
		<b>\$4,650,000</b>	

## **Appendix B**

### **Milestones**

Interconnection Customer's Written Authorization to 1) commence design, procurement and construction of Transmission Provider's Interconnection Facilities and Network Upgrades (Article 5.5.2) and 2) to verify that the appropriate agreements have been executed for design, procurement and construction of Affected System network upgrades

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Provision of Security to Transmission Provider (Article 5.5.3 and Article 11.3)

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In Service Date (backfeed power from Interconnection Facilities)

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Declaration of Balancing Authority Area \_\_\_\_\_

Initial Synchronization \_\_\_\_\_

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

True Up all required costs \_\_\_\_\_

## **Appendix C**

### **Facility Configuration and Point of Interconnection**

(Insert Simple Schematic of Interconnection Facilities, Point of Interconnection, etc.)

(Note: Include Point of Change of Ownership and Point of Interconnection per respective definitions)

## Appendix D

### Commercial Operation Date Confirmation

This Appendix D is a part of the Agreement between Transmission Provider and Interconnection Customer.

**[Date]**

**[Transmission Provider Address]**

Re: \_\_\_\_\_ 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 Generating Facility, effective as of **[Date plus one day]**.

Thank you.

**[Signature]**

**[Interconnection Customer Representative]**

## Appendix E

### 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 F

### **Interconnection Requirements for a Non-Synchronous Generating Facility**

This Appendix F sets forth requirements and provisions specific to a non-synchronous generating facility. All other requirements of this GIA continue to apply to non-synchronous generating facility interconnections.

#### **A. Technical Standards Applicable to a Non-synchronous Generating Facility**

##### **i. Low Voltage Ride-Through (LVRT) Capability**

A non-synchronous generating facility shall be able to remain online during voltage disturbances up to the time periods and associated voltage levels set forth in the standard below.

#### **LVRT Standard**

All non-synchronous generating facilities must meet the following requirements:

1. Non-synchronous generating facilities 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 non-synchronous generating facility substation location, as determined by and documented by the Transmission Provider. The maximum clearing time the non-synchronous generating plant shall be required to withstand for a three-phase fault shall be 9 cycles after which, if the fault remains following the location-specific normal clearing time for three-phase faults, the non-synchronous generating facility may

disconnect from the Transmission System. A non-synchronous generating plant facility shall remain interconnected during such a fault on the Transmission System for a voltage level as low as zero volts, as measured at the high voltage side of the non-synchronous GSU.

2. This requirement does not apply to faults that would occur between the non-synchronous generator terminals and the high side of the GSU.
3. Non-synchronous generating facilities may be tripped after the fault period if this action is intended as part of a special protection system.
4. Non-synchronous generating facilities 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 non-synchronous generating facility 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 this Appendix F LVRT Standard are exempt from meeting the Appendix F LVRT Standard for the remaining life of the existing generation equipment. Existing individual generator units that are replaced at the Generating Facility are required to meet this Appendix F LVRT Standard.

**ii. Power Factor Design Criteria (Reactive Power)**

Non-synchronous generators shall maintain a power factor within the range of 0.95 leading to 0.95 lagging, measured at the high side of the GSU as defined in this GIA. 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 the Transmission

Provider, or a combination of the two. The Interconnection Customer shall not disable power factor equipment while the non-synchronous generating facility is in operation. Non-synchronous generating facilities 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.