

**ISO TARIFF APPENDIX W**

**Interconnection Procedures in Effect Prior to July 1, 2005 (“Amendment 39 Procedures”)**

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**1 Applicability.**

These Amendment 39 Procedures are applicable to Small Generating Facilities interconnecting to the ISO Controlled Grid and to Large Generating Facilities in accordance with Section 5.1 of the LGIP. The owner of a planned New Facility, or its designee, is referred to for purposes of this Appendix as a New Facility Operator.

**2 Definitions.**

**2.1 Master Definitions Supplement.**

Unless the context otherwise requires, any word or expression defined in the Master Definitions Supplement to the ISO Tariff shall have the same meaning where used in this Appendix.

**2.2 Special Definitions for this Appendix.**

In this Appendix, the following words and expressions shall have the meanings set opposite them:

**Completed Application**

**Date** For purposes of this Appendix, the date on which a New Facility Operator submits an Interconnection Application to the ISO that satisfies the requirements of the ISO Tariff and the TO Tariff of the Interconnecting PTO.

**Completed Interconnection**

**Application** An Interconnection Application that meets the information requirements as specified by the ISO and posted on the ISO Home Page.

**Data Adequacy Requirement** Any applicable minimum data requirements of the state agency responsible for generation siting or of any Local Regulatory Authority.

**Delivery Upgrade** The transmission facilities, other than Direct Assignment Facilities and Reliability Upgrades, necessary to relieve constraints on the ISO Controlled Grid and to ensure the delivery of energy from a New Facility to Load.

**Designated Contact Person** The person designated by each Participating TO to coordinate with the ISO on the processing and completion of all Interconnection Applications.

**Direct Assignment Facility** The transmission facilities necessary to physically and electrically interconnect a New Facility Operator to the ISO Controlled Grid at the point of interconnection.

**Expedited Interconnection Agreement**

A contract between a party which has submitted a Request for Expedited Interconnection Procedures and an Interconnection PTO under which the ISO and an Interconnecting PTO agree to process, on an expedited

basis, the Interconnection Application of a New Facility Operator and which sets forth the terms, conditions, and cost responsibilities for such interconnection.

<b>Good Faith Deposit</b>	The deposit paid to the ISO by a New Facility Operator with submission of its Interconnection Application in accordance with Section 3.2 of this Appendix, in an amount equal to \$10,000, including any interest that accrues on the original amount, less any bank fees or other charges assessed on the escrow account. A New Facility Operator may satisfy its deposit obligation through any commercially available financial instrument determined to be satisfactory by the ISO.
<b>Interconnecting PTO</b>	For purposes of this Appendix, the Participating TO that will supply the connection to the New Facility.
<b>Interconnection Application</b>	An application that requests interconnection of a New Facility to the ISO Controlled Grid and that meets the information requirements as specified by the ISO and posted on the ISO Home Page.
<b>New Facility</b>	A planned or Existing Generating Unit that requests, pursuant to this Appendix, to interconnect or modify its interconnection to the ISO Controlled Grid.
<b>New Facility License</b>	A license issued by a federal, state or Local Regulatory Authority that enables an entity to build and operate a Generating Unit.
<b>New Facility Operator</b>	The owner of a planned New Facility, or its designee.
<b>Planning Procedures</b>	Procedures governing the planning, expansion and reliable interconnection to the ISO Controlled Grid that the ISO may, from time to time, develop.
<b>Reliability Upgrade</b>	The transmission facilities, other than Direct Assignment Facilities, beyond the first point of interconnection necessary to interconnect a New Facility safely and reliably to the ISO Controlled Grid, which would not have been necessary but for the interconnection of a New Facility, including network upgrades necessary to remedy short circuit or stability problems resulting from the interconnection of a New Facility to the ISO Controlled Grid. Reliability Upgrades also include, consistent with WSCC practice, the facilities necessary to mitigate any adverse impact a New Facility's interconnection may have on a path's WSCC path rating.
<b>Request for Expedited</b>	
<b>Interconnection Procedures</b>	A written request, submitted pursuant to Section 3.1.1 of this Appendix, by which a New Facility Operator can request expedited processing of its Interconnection Application.
<b>System Impact Study</b>	An engineering study conducted to determine whether a New Facility Operator's request for interconnection to the ISO Controlled Grid would require new transmission additions, upgrades or other mitigation measures.

### **3 Interconnection Application.**

Unless the New Facility Operator has submitted a Completed Interconnection Application to the ISO prior to July 1, 2005, any New Facility Operators shall submit two copies of a Completed Interconnection Application to the ISO in the form specified by the ISO. The ISO will date stamp all copies of the Interconnection Application, retain one executed copy, and, within 1 Business Day, send the other copy to the Designated Contact Person of the Interconnecting PTO. Within 10 Business Days after the Interconnecting PTO receives an Interconnection Application, the ISO and the Interconnecting PTO shall determine whether the application is complete and the ISO will notify the New Facility Operator that its Interconnection Application is complete; or, in the event that the ISO, in consultation with the Interconnecting PTO, determines that the Interconnection Application is incomplete, the ISO will notify the New Facility Operator of the deficiencies or omissions in its application.

#### **3.1 Expedited Procedures For New Facilities.**

A New Facility Operator may submit a Request for Expedited Interconnection Procedures in accordance with Section 3.1.1 of this Appendix. The ISO will develop and post on the ISO Home Page the Planning Procedures applicable to such expedited processing of Interconnection Applications.

##### **3.1.1 Request for Expedited Interconnection Procedures.**

- (a) If it elects to expedite processing of its Completed Interconnection Application, a New Facility Operator shall submit a Request for Expedited Interconnection Procedures within 10 Business Days after receiving a copy of the System Impact Study for the proposed interconnection. The request should be submitted in writing to the ISO and the Interconnecting PTO.
- (b) Within 10 Business Days after receiving a Request for Expedited Interconnection Procedures, the ISO and Interconnecting PTO shall provide to applicant the results of any studies required in addition to the System Impact Study, and shall tender an Expedited Interconnection Agreement that requires the applicant to compensate the Interconnecting PTO for all costs reasonably incurred pursuant to the terms of the ISO Tariff and the Interconnecting PTO's applicable TO Tariff for processing the Completed Interconnection Application and providing the requested interconnection.
- (c) Concurrent with the provision, by the ISO and the Interconnecting PTO, of the studies referenced in subsection b, above, the Interconnecting PTO and the ISO shall provide to applicant their best estimate of the cost of any needed Direct Assignment Facilities and Reliability Upgrades, Delivery Upgrades, if requested by the New Facility Operator, and other costs that may be incurred in processing the Interconnection Application and providing the requested interconnection, however, unless otherwise agreed by the ISO, and the Interconnecting PTO, and the applicant, such cost estimate shall not be binding and the New Facility Operator shall compensate the ISO and the Interconnecting PTO for all actual interconnection costs reasonably incurred pursuant to the provisions of this Appendix and the Interconnecting PTO's TO Tariff.
- (d) The New Facility Operator shall execute and return to the Interconnecting PTO, with a copy to the ISO, such Expedited Interconnection Agreement within 10 Business Days of its receipt or the New Facility Operator's Interconnection Application will be deemed withdrawn. In that event, the New Facility Operator shall reimburse the ISO and the Interconnecting PTO for all costs reasonably incurred in the processing of the Interconnection Application, including the Request for Expedited Interconnection.

**3.2 Good Faith Deposit.**

- (a) Each New Facility Operator that submits an Interconnection Application will on the date of submission also provide a Good Faith Deposit to the ISO. The ISO shall hold the Good Faith Deposit in trust for each applicant in a separate, interest-bearing account.
- (b) The ISO shall refund the Good Faith Deposit, with accrued Interest, in the event that:
  - (i) The ISO determines that the New Facility is not responsible for any interconnection costs, other than study costs; or
  - (ii) The applicant withdraws its Interconnection Application or its Interconnection Application is deemed withdrawn.

**3.3 Posting of Interconnection Applications and Non-disclosure.**

The ISO will maintain on its OASIS site an updated list of all pending Interconnection Applications. As soon as practicable after the ISO receives a Completed Interconnection Application, the ISO will post the nearest substation, the capacity (MW) of the New Facility and the year the New Facility is proposed to begin operations. At the time it submits its Interconnection Application, a New Facility Operator may request in writing that the ISO and Interconnecting PTO not publicly disclose the identity of such New Facility Operator. Upon such request, the ISO and Interconnecting PTO will not disclose the identity of the applicant while its Interconnection Application is pending, unless disclosure is permitted under Section 20.3.1 of the ISO Tariff or in the event that an applicant's identity becomes otherwise publicly known.

**4 Interconnection.**

**4.1 Detailed Planning Procedures.**

The provisions set forth in this Appendix shall govern the interconnection of New Facilities to the ISO Controlled Grid, including the costs of such interconnection. The ISO shall also maintain on the ISO Home Page detailed Planning Procedures and interconnection standards for all such interconnections.

**4.2 Studies.**

- (a) Except as provided in Section 4.2(d) of this Appendix, for each Completed Interconnection Application, the ISO will direct the Interconnecting PTO to perform the required System Impact Study and Facility Study, and any additional studies the ISO determines to be reasonably necessary.
- (b) The Interconnecting PTO will complete or cause to be completed all studies directed by the ISO within the timelines provided in this section. Any studies performed by the ISO or by a third party at the direction of the ISO shall also be completed within the timelines provided in this section.
- (c) Each New Facility Operator shall pay the reasonable costs of all System Impact and Facility Studies performed by or at the direction of the ISO or the Interconnecting PTO, and any additional studies the ISO determines to be reasonably necessary in response to the Interconnection Application, including any iterative study costs required for other New Facility Operator's that have established a new queue position due to the New Facility Operator either withdrawing its Interconnection Application or because its queue position has been modified pursuant to the procedures in Section 4.4 of this Appendix. A New Facility Operator shall also pay the reasonable cost of Interconnecting PTO review of any System Impact Study or Facility Study that is performed by a New Facility Operator or its designee pursuant to subsection (d).

- (d) A New Facility Operator may perform its own System Impact Study and Facility Study, or contract with a third party to perform the System Impact Study and Facility Study, and shall so notify the ISO and the Interconnecting PTO of this election at the time it submits its Interconnection Application. Any such study or studies performed by a New Facility Operator or third party must be completed within the timelines identified in Sections 4.2.1 and 4.2.2 of this Appendix. To the extent that the ISO and Interconnecting PTO disagree on the adequacy of the New Facility Operator or third party-sponsored study, the ISO will determine the adequacy of the study, subject to the ISO's ADR Procedures. The ISO and Interconnecting PTO shall complete their review of the New Facility Operator's study within 30 calendar days of receipt of the completed study. The results of any study or studies performed by a New Facility Operator or third party must be approved by both the ISO and the Interconnecting PTO.

#### **4.2.1 System Impact Study Procedures.**

Within 10 Business Days after receiving a Completed Interconnection Application by the Interconnecting PTO, the ISO and the Interconnecting PTO will determine, on a non-discriminatory basis, whether a System Impact Study is required. The ISO and the Interconnecting PTO will make such determination based on the ISO Grid Planning Criteria and the transmission assessment practices outlined in the ISO Planning Procedures posted on the ISO Home Page. The ISO and Interconnecting PTO will utilize, to the extent possible, existing transmission studies. The System Impact Study will identify whether any Direct Assignment Facilities and Reliability Upgrades are needed, as well as, if requested by the New Facility Operator, any Delivery Upgrades necessary to deliver a New Facility's full output over the ISO Controlled Grid. The System Impact Study will also identify any adverse impact on Encumbrances existing as of the Completed Application Date.

If the ISO and the Interconnecting PTO determine that a System Impact Study is necessary, the Interconnecting PTO shall within 20 Business Days of receipt of Completed Interconnection Application, tender a System Impact Study Agreement that defines the scope, content, assumptions and terms of reference for such study, the estimated time required to complete it, and pursuant to which the applicant shall agree to reimburse the Interconnecting PTO for the reasonable actual costs of performing the required study. The New Facility Operator shall execute the System Impact Study Agreement and return it to the Interconnecting PTO within 10 Business Days, together with payment for the reasonable estimated cost, as provided by the Interconnecting PTO, of the System Impact Study. Alternatively, a New Facility Operator can request that the Interconnecting PTO proceed with the System Impact Study and abide by the terms, conditions, and cost assignment of the System Impact Study Agreement as determined through the ISO ADR Procedures, provided that such request is accompanied by payment for the reasonable estimated cost, as provided by the Interconnecting PTO, of the System Impact Study. If a New Facility Operator elects neither to execute the System Impact Study Agreement nor to rely upon the ISO ADR Procedures, such New Facility Operator's Completed Application will be deemed withdrawn. If the New Facility Operator's application is deemed withdrawn, the New Facility Operator will compensate the Interconnecting PTO for all reasonable costs incurred to that date in processing the Completed Interconnection Application.

The Interconnecting PTO will use due diligence to complete the System Impact Study within 60 calendar days of receipt of payment and the System Impact Study Agreement or initiation of the ISO ADR Procedures. If the Interconnecting PTO cannot complete the System Impact Study within 60 calendar days, the Interconnecting PTO will notify the New Facility Operator, in writing, of the reason why additional time is required to complete the required study and the estimated completion date.

#### **4.2.2 Facility Study Procedures.**

If a System Impact Study indicates that additions or upgrades to the ISO Controlled Grid are needed to satisfy a New Facility Operator's request for interconnection, the Interconnecting PTO shall, within 15 Business Days of the completion of the System Impact Study, tender to a New Facility Operator a Facility Study Agreement that defines the scope, content, assumptions and terms of reference for such study, the estimated time to complete the required study, and pursuant to which the applicant agrees to reimburse the Interconnecting PTO for the actual costs of performing the required Facility Study. The New Facility Operator shall execute the Facility Study Agreement and return it to the Interconnecting PTO within 10 Business Days, together with payment for the reasonable estimated cost, as provided by the Interconnecting PTO, of the Facility Study. Alternatively, a New Facility Operator may request that the Interconnecting PTO proceed with the Facility Study and abide by the terms, conditions, and cost assignment of the Facility Study Agreement ultimately determined through the ISO ADR Procedures, provided that such request is accompanied by payment for the reasonable estimated cost, as provided by the Interconnecting PTO, of the Facility Study. If a New Facility Operator elects either to not execute the Facility Study Agreement or to rely upon the ISO ADR Procedures, such New Facility Operator's Completed Application will be deemed withdrawn. If the New Facility Operator's application is deemed withdrawn, the New Facility Operator will compensate the Interconnecting PTO for all reasonable costs incurred to that date in processing the Completed Application.

The Interconnecting PTO will use due diligence to complete the Facility Study within 60 calendar days of receipt of payment and the Facility Study Agreement or initiation of the ISO ADR Procedures. If the Interconnecting PTO cannot complete the Facility Study within 60 calendar days, the Interconnecting PTO will notify the New Facility Operator, in writing, of the reason why additional time is required to complete the required study and the estimated completion date.

A New Facility Operator shall be entitled to amend its Completed Interconnection Application once without losing its queue position. Such amendment shall occur on or before 10 Business Days following the Date the Interconnecting PTO tenders a Facility Study Agreement. Specifically, as an alternative to executing and returning a Facility Study Agreement, a New Facility Operator may submit an amendment to its Completed Interconnection Application to reflect a revised configuration for its New Facility. The amended Completed Interconnection Application shall be treated in accordance with Section 4.2.1 of this Appendix and the New Facility Operator's Completed Interconnection Application shall not be deemed withdrawn, and it shall maintain its exiting queue position, if (a) the amended Completed Interconnection Application is received by the Interconnecting PTO within 10 Business Days of the Interconnecting PTO's tender of a Facility Study Agreement; and (b) the New Facility Operator has not submitted a previous amendment to the Completed Interconnection Application. In the event a New Facility Operator amends its Completed Interconnection Application, it will be responsible for any additional study costs that result from that amendment, including costs associated with revisions to studies for other applicants holding later queue positions.

#### **4.3 Execution of Interconnection Agreement.**

Following completion of the Facilities Study, a New Facility Operator proposing to interconnect a Large Generating Facility shall continue the interconnection process in accordance with Section 11.2 of the LGIP. Within 10 Business Days of receipt of a completed Facility Study, a New Facility Operator proposing to interconnect a Small Generating Facility shall request the Interconnecting PTO to provide to such applicant an Interconnection Agreement. The Interconnecting PTO shall provide an Interconnection Agreement to an applicant within 30 Business Days of receipt of the request for an Interconnection Agreement. If the ISO and Interconnecting PTO determine, pursuant to Sections 4.2.1 and 4.2.2 of this Appendix, that either:

- (a) a New Facility Operator's Interconnection Application can be accommodated and that such New Facility Operator will not incur costs for Reliability Upgrades, the New Facility Operator shall

execute the Interconnection Agreement within 10 Business Days of receipt of the Interconnection Agreement; or

- (b) a New Facility Operator's Interconnection Application will necessitate Reliability Upgrades, the New Facility Operator shall execute the Interconnection Agreement within 30 Business Days of receipt of the Interconnection Agreement or, if a New Facility Operator and the Interconnecting PTO are unable to agree on the rates, terms and conditions of the Interconnection Agreement, the New Facility Operator may request that the Interconnecting PTO file an unexecuted Interconnection Agreement at FERC. If a New Facility Operator does request that the Interconnecting PTO file an unexecuted Interconnection Agreement at FERC, the New Facility Operator shall agree to abide by the rates, terms and conditions of such Interconnection Agreement ultimately determined by FERC to be just and reasonable.

#### **4.4 Queuing.**

- (a) The ISO and Interconnecting PTO will process all Interconnection Applications based on the New Facility's Completed Application Date.
- (b) The queue position for each New Facility that has submitted an Interconnection Application will be established according to the Completed Application Date and the New Facility's compliance with the milestones set forth in Section 4.4.1 of this Appendix.
- (c) For any New Facility Operator that submitted a request to interconnect to a Interconnecting PTO prior to June 1, 2002 (the effective date of the Amendment 39 Procedures), such New Facility Operator's position in the queue will be based on its Completed Application Date as that term was defined in the Interconnecting PTOs TO Tariff in effect at the time the New Facility Operator submitted a request to interconnect to the Interconnecting PTO.

##### **4.4.1 Queuing Milestones.**

- (a) To maintain its queue position, each New Facility Operator must timely comply with the requirements of the ISO Tariff and the TO Tariff of the Interconnecting PTO and must, within 6 months of its Completed Application Date, satisfy all applicable Data Adequacy Requirements of state and local siting and other regulatory authorities. Any New Facility Operator not subject to state siting requirements must satisfy the information requirements set forth in 18 C.F.R. § 2.20. The ISO will permit a New Facility Operator to retain its queue position if such New Facility Operator requests an extension of the six-month period at least 5 Business Days prior to the expiration of such period. Such extension will be limited to one period of 30 Business Days and additional extensions shall not be granted. A New Facility Operator that does not maintain its queue position, but later satisfies the Data Adequacy Requirements, or the requirements of 18 C.F.R. § 2.20 if applicable, will be placed in a queue position comparable to that of other New Facility Operators that have satisfied the Data Adequacy Requirements, or the requirements of 18 C.F.R. § 2.20, as of the same date. At that time, the ISO and the Interconnecting PTO will determine whether a new System Impact Study must be performed based on the revised queue position of such New Facility Operator.
- (b) Upon satisfaction of the Data Adequacy Requirements, or the requirements of 18 C.F.R. § 2.20 if applicable, each New Facility Operator, in order to maintain its queue position, must obtain a New Facility License within 15 months after satisfying the Data Adequacy Requirements. A New Facility Operator that does not obtain a New Facility License within the allowed time and does not maintain its queue position, but later obtains a New Facility License, will be placed in a queue position comparable to other New Facility Operators that have satisfied comparable milestones as of that date.



- (c) Any New Facility whose New Facility License or building permit expires or is rescinded will not maintain its queue position.
- (d) A New Facility Operator that has submitted a dispute under Article 13 of the ISO Tariff regarding any part of this Appendix may request that the presiding judge, arbitrator, or mediator of the dispute suspend its obligation to meet milestones in order to maintain its queue position. In the event such a suspension is granted, the New Facility Operator must satisfy the missed milestones specified in this Section 4.4.1 of this Appendix within 30 calendar days of the date the decision on the dispute becomes final.

#### **4.5 Coordination of Critical Protective Systems.**

New Facility Operators shall coordinate with the ISO, Participating TOs and UDCs to ensure that a New Facility Operator's Critical Protective Systems, including relay systems, are installed and maintained in order to function on a coordinated and complementary basis with ISO Controlled Grid Critical Protective Systems and the protective systems of the Participating TOs and UDCs. The ISO and Participating TOs will make available all information necessary for a New Facility Operator to determine whether its Critical Protective Systems are compatible with those of the ISO, Participating TOs and UDCs. The ISO and New Facility Operators shall also coordinate with entities that own, operate or control facilities outside of the ISO Controlled Grid to ensure that a New Facility's Critical Protective Systems function on a coordinated and complementary basis with such entities Critical Protective Systems.

#### **5 Cost Responsibility of New Facility Operators.**

- (a) Each New Facility Operator shall pay the costs of required studies in accordance with Section 4.2 of this Appendix and the costs identified in this Section 5. The ISO and Interconnecting PTO will provide each New Facility Operator an estimate of its total cost responsibility under this Section. A New Facility Operator shall be responsible for the actual costs of all Direct Assignment Facilities and Reliability Upgrades necessitated by its Completed Interconnection Application. The Interconnecting PTO will provide each New Facility Operator a detailed record of the actual costs assessed to it under this Section. A New Facility Operator may request the Interconnecting PTO to provide any additional information reasonably necessary to audit the actual costs the New Facility Operator is assessed.
- (b) The ISO and Interconnecting PTO will process all Interconnection Applications, and determine the cost responsibility of each New Facility Operator based on the New Facility Operator's Completed Application Date or, if applicable, based on the queue position determined by the procedure described in Section 4.4.1(b) of this Appendix. The ISO and Interconnecting PTO will process simultaneously all interconnection requests with the same Completed Application Date.
- (c) Each New Facility Operator shall pay the costs of planning, installing, operating and maintaining the following facilities: (i) Direct Assignment Facilities, and, if applicable, (ii) Reliability Upgrades. In addition, each New Facility Operator shall implement all existing operating procedures necessary to safely and reliably connect the New Facility to the facilities of the Interconnecting PTO and to ensure the ISO Controlled Grid's conformance with the ISO Grid Planning Criteria, and shall bear all costs of implementing such operating procedures. The New Facility Operator shall be responsible for the costs of Reliability Upgrades only if the necessary facilities are not included in the ISO Controlled Grid Transmission Expansion Plan approved as of the New Facility Operator's Completed Application Date, or the date for the installation of a facility is advanced by the interconnection of the New Facility, in which case the New Facility Operator shall be responsible only for the incremental costs associated with the earlier installation of the facility.
- (d) Each New Facility Operator may, at its own discretion, sponsor, pursuant to Section 3.2 of the ISO Tariff, any Delivery Upgrades.

**5.1 Maintenance of Encumbrances.**

No New Facility shall adversely affect the ability of the Interconnecting PTO to honor its Encumbrances existing as of the time a New Facility submits its Interconnection Application to the ISO. The Interconnecting PTO, in consultation with the ISO, shall identify any such adverse effect on its Encumbrances in the System Impact Study performed under Section 4.2.1 of this Appendix. To the extent the Interconnecting PTO determines that the connection of the New Facility will have an adverse effect on Encumbrances, the New Facility Operator shall mitigate such adverse effect.

**5.2 Settlement of Interconnection Costs.**

Payment for Direct Assignment Facilities and Reliability Upgrades shall be made by the New Facility Operator to the Interconnecting PTO pursuant to the terms of payment set forth in the Interconnection Agreement between the parties.

**6 Energization.**

Neither the ISO nor the Interconnecting PTO shall be obligated to energize, nor shall the New Facility Operator be entitled to have its interconnection to the ISO Controlled Grid energized, unless and until an Interconnection Agreement has been executed, or filed at FERC pursuant to Section 4.3 of this Appendix, and becomes effective and such New Facility Operator has demonstrated to the ISO's reasonable satisfaction that it has complied with all of the requirements of this Appendix.

**ISO TARIFF APPENDIX X**  
**Dynamic Scheduling Protocol (DSP)**

**ISO TARIFF APPENDIX X**

**Dynamic Scheduling Protocol (DSP)**

**DSP 2 CONSISTENCY WITH NERC/WECC POLICIES AND REQUIREMENTS**

**DSP 2.1** Scheduling and operation of dynamic scheduling functionalities must comply with all applicable NERC and WECC policies and requirements regarding inter-Control Area scheduling, in accordance with Section 4.5.4.3 of the ISO Tariff.

**DSP 2.2** Scheduling and operation of dynamic scheduling functionalities must be consistent with the NERC Dynamic Transfer White Paper and all NERC standards or policies.

**DSP 2.3** All new dynamic functionality implementations may be subject to NERC-specified peer review.

**DSP 3 CONTRACTUAL RELATIONSHIPS**

**DSP 3.1** The Host Control Area and all Intermediary Control Areas must each execute an Interconnected Control Area Operating Agreement ("ICAOA") with the ISO, with accompanying service schedule, or a special agreement particular to the operation of the functionality supporting dynamic imports of Energy, Supplemental Energy, and/or Energy associated with non-regulating Ancillary Services to the ISO Control Area.

**DSP 3.2** The Scheduling Coordinator for the System Resource must execute a special agreement with the ISO governing the operation of the dynamic scheduling functionality, which agreement will include a provision for its termination based on failure to comply with these standards.

**DSP 3.3** The Scheduling Coordinator for the System Resource must have the necessary operational and contractual arrangements in place with the Host Control Area (see Section 5 below). Such arrangements must include the Host Control Area operator's ability to receive telemetry from the System Resource and to issue a dynamic schedule signal pertinent to that System Resource to the ISO. Proof of such arrangements must be provided to the ISO.

**DSP 4 COMMUNICATIONS, TELEMETRY, AND OTHER TECHNICAL REQUIREMENTS**

**DSP 4.1** The communication and telemetry requirements set forth in the ISO's Standards for Imports of Regulation will apply to all dynamic schedules, except for (a) those dynamic functionalities established prior to the ISO Operations Date, (b) the requirements that are specific solely to Regulation, and (c) the requirements set forth below.

**DSP 4.2** Dedicated dual redundant communications links between the ISO's EMS and the Host Control Area EMS are required.

**DSP 4.3** The primary circuit will be T1-class, or equivalent, utilizing the inter-control center communications protocol ("ICCP"). The backup circuit will be diversely routed between the Host Control Area EMS and the ISO Control Area EMS on separate physical paths and devices.

- DSP 4.4** Dedicated dual redundant communications links between the Host Control Area EMS and every Intermediary Control Area EMS are required.
- DSP 4.5** The Control Area hosting a dynamically scheduled System Resource must have a mechanism implemented to override the associated dynamic signal.
- DSP 4.6** The dynamic signal must be properly incorporated into all involved Control Areas' ACE equations.
- DSP 4.7** The System Resource must have communications links with the Host Control Area consistent with these standards.
- DSP 5** **LIMITS ON DYNAMIC IMPORTS**
- DSP 5.1** The ISO reserves the right to establish limits applicable to the amount of any Ancillary Services and/or Supplemental Energy imported into the ISO Control Area, whether delivered dynamically or statically. Such limits may be established based on any one, or a combination, of the following considerations: a percentage of, or a specific import limit applicable to, total ISO Control Area requirements; a percentage of, or a specific import limit applicable to, a particular Scheduling Point or a branch group; a percentage of, or a specific import limit applicable to, total requirements in a specific Congestion Zone; or operating factors which may include, but are not limited to, operating nomograms, Remedial Action Schemes, protection schemes, scheduling and curtailment procedures, or any potential single points of failure associated with the actual delivery process.
- DSP 5.2** The ISO may, at its discretion, either limit or forego procuring Ancillary Services at particular Control Area interties to ensure that Operating Reserves are adequately dispersed throughout the ISO Control Area as required by NERC and WECC reliability standards, including any requirements of the NRC.
- DSP 5.3** A dynamically scheduled System Resource and its schedules must be permanently associated with a particular ISO intertie (the ISO may, from time to time and at its discretion, allow for a change in such pre-established association of the dynamically scheduled System Resource with a particular ISO intertie).
- DSP 6** **OPERATING AND SCHEDULING REQUIREMENTS**
- DSP 6.1** For any operating hour for which Energy, Supplemental Energy, and/or Ancillary Services (and associated Energy) is scheduled dynamically to the ISO from the System Resource, a firm (or non-interruptible for that hour) matching transmission service must be reserved across the entire dynamic schedule transmission path external to the ISO Control Area.
- DSP 6.2** All dynamic schedules associated with newly implemented dynamically scheduled System Resources must be electronically tagged (e-tagged).
- DSP 6.3** Formal inter-Control Area dynamic schedules may be issued only by the dynamically scheduled System Resource's Host Control Area and must be routed through the EMSs of all Intermediary Control Areas (such schedules would be considered "wheel-through" schedules by Intermediary Control Areas).
- DSP 6.4** The ISO will treat dynamically scheduled Energy as a resource contingent firm import. The ISO will procure (or allow for self-provision of) Operating Reserves for loads served by dynamically scheduled System Resources as required by NERC and WECC reliability standards, including any requirements of the NRC.

- DSP 6.5** All Energy schedules associated with dynamically scheduled imports of Spinning Reserve and Non-Spinning Reserve will be afforded similar treatment (i.e., resource contingent firm).
- DSP 6.6** The dynamic signal must be integrated over time by the Host Control Area for every operating hour.
- DSP 6.7** Notwithstanding any dispatches of the System Resource in accordance with the ISO Tariff, the ISO shall have the right to issue operating orders to the System Resource either directly or through the Host Control Area for emergency or contingency reasons, or to ensure the ISO's compliance with operating requirements based on WECC or NERC requirements and policies (e.g., WECC's Unscheduled Flow Reduction Procedure). However, such operating orders may be issued only within the range of the ISO-accepted Energy, Ancillary Services, and/or Supplemental Energy Schedules and bids for a given operating hour (or the applicable "sub-hour" interval).
- DSP 6.8** If there is no dynamic schedule in the ISO's Day-Ahead, Hour-Ahead, or Supplemental Energy markets, the dynamic signal must be at "zero" ("0") except when in response to ISO's Dispatch Instructions associated with accepted Ancillary Services and/or Supplemental Energy bids.
- DSP 6.9** The Scheduling Coordinator of the dynamically scheduled System Resource must have the ability to override the associated dynamic schedule in order to respond to the operating orders of the ISO or the Host Control Area.
- DSP 6.10** Unless the dynamically scheduled System Resource (1) is implemented as a directly-telemetered load-following functionality, (2) is base-loaded Regulatory Must Take Generation, or (3) responds to an ISO intra-hour Dispatch Instruction, the dynamic schedule representing such resource must follow WECC-approved practice of 20-minute ramps centered at the top of the hour. The ISO does not provide any special settlements treatment nor offer any ISO Tariff exemptions for dynamic load following functionalities.
- DSP 6.11** In real time the dynamic schedule may not exceed the maximum value established by the sum of the Day-Ahead and Hour-Ahead accepted Energy and Ancillary Services Schedules plus any accepted Supplemental Energy bids plus any response to the ISO's real-time Dispatch Instructions. The composite value of the dynamic schedule derived from the Day-Ahead and Hour-Ahead accepted Schedules plus any Supplemental Energy bids and Dispatch Instruction response represents not only the estimated dynamically scheduled System Resource's Energy but also the transmission reservation on the associated ISO inertia.
- DSP 6.12** Only one dynamically scheduled System Resource may be associated with any one physical generating resource.
- DSP 6.13** If the Scheduling Coordinator for the dynamically scheduled System Resource desires to participate in ISO's Regulation market, all provisions of the ISO's Standards for Imports of Regulation shall apply.

**DSP 7 CERTIFICATION, TESTING, AND PERFORMANCE MONITORING OF DYNAMIC IMPORTS OF ANCILLARY SERVICES**

Scheduling Coordinators and Host Control Areas that are already certified under the ISO's Standards for Imports of Regulation will be deemed to have fulfilled the technical implementation requirements of this Protocol; however, such Scheduling Coordinators

and Control Areas must still be certified separately for each non-Regulating Ancillary Service (all presently implemented)

Regulation import functionalities may be subject to review to ensure consistency between such functionalities and the requirements of this Protocol). Scheduling Coordinators and Host Control Areas that wish to be certified for imports of Regulation shall be subject to certification under the Standards for Imports of Regulation, subject to verification of consistency with the requirements of this Protocol.

- DSP 7.1** The Scheduling Coordinator and Host Control Area operator must jointly request the certification of a System Resource to provide Ancillary Services for the ISO Control Area and cooperate in the testing of such System Resource (see the "Scheduling Coordinator & Host Control Area Operator Request for Certification of Dynamic Imports of Ancillary Services" certification form attached as Attachment A to this Protocol.
- DSP 7.2** Only ISO tested and certified System Resources will be allowed to bid and/or self-provide Ancillary Services into the ISO Control Area.
- DSP 7.3** Dynamic Ancillary Services imports will be certified through testing, in accordance with the relevant sections of the ISO's Operating Procedure G-213. All requests for certification of dynamic Ancillary Services imports will be reviewed and approved by the ISO with respect to any technical limitations imposed by existing operational considerations, such as Remedial Action Schemes, operating nomograms, and scheduling procedures. These reviews may impose certain Ancillary Services import limits in addition to those outlined in Section 4.1. Therefore, interested parties are advised and encouraged to contact the ISO before they begin the process of the necessary systems design, preparation, and implementation for import of Ancillary Services to the ISO Control Area.
- DSP 7.4** The ISO will measure the performance of the dynamic Energy schedule associated with accepted Ancillary Services bids against (1) the awarded range of Ancillary Service capacity; (2) the certified limits; and (3) the bid ramp rate, which shall be validated by the ISO against the certified ramp rate.
- DSP 7.5** The Scheduling Coordinator for the System Resource and the Host Control Area must notify the ISO should any changes, modifications, or upgrades affecting control and/or performance of the System Resource be made. Upon such notification, the ISO, at its discretion, may require that the System Resource and Host Control Area be re-certified to import Ancillary Services into the ISO Control Area.
- DSP 8** **COMPLIANCE, LOSSES, AND FINANCIAL SETTLEMENTS**
- DSP 8.1** Energy delivered in association with dynamically scheduled System Resources will be subject to all provisions of the ISO's Imbalance Energy markets, including Uninstructed Deviation Penalties ("UDP") (just as is the case with ISO intra-Control Area Generating Units of Participating Generators).
- DSP 8.2** Dynamically scheduled and delivered Ancillary Services will be subject to the ISO's compliance monitoring and remedies, just as any ISO intra-Control Area Generating Units of Participating Generators.
- DSP 8.3** All Day-Ahead and Hour-Ahead submitted dynamic schedules shall be subject to ISO Congestion mitigation and as such may not exceed their transmission reservations in real time (with the exception of intra-hour Dispatch Instructions of the Energy associated with accepted Ancillary Services or Supplemental Energy bids).

- DSP 8.4** All dynamically scheduled and delivered Energy shall be subject to the standard ISO transmission loss calculation associated with the particular inertia (“TMMs” or ISO market redesign alternative).
- DSP 8.5** Any transmission losses attributed to the dynamic schedule on transmission system(s) external to the ISO Control Area will be the responsibility of the owner(s)/operator(s) of the dynamically scheduled System Resource.
- DSP 8.6** A predetermined, mutually agreed, and achievable “Pmax-like” fixed MW value will be established for every dynamically scheduled System Resource to be used as the basis for the UDP calculation. Responsible Scheduling Coordinators will be able to report de-rates affecting the dynamically scheduled System Resource via the ISO’s “SLIC” outage reporting system.
- DSP 8.7** Should there be any need or requirement, whether operational or procedural, for the ISO to make real time adjustments to the ISO’s inter-Control Area schedules (to include curtailments), dynamic schedules shall be treated in the same manner as similarly situated and/or effective static ISO schedules.



**DSP ATTACHMENT A**

**Scheduling Coordinator & Host Control Area Operator**

**Request for Certification of**

**Imports of Spinning and Non-Spinning Reserves for which the associated Energy is delivered dynamically from a System Resource**

In accordance with the ISO Tariff, Protocols and Operating Procedures, \_\_\_\_\_, as Scheduling Coordinator, and \_\_\_\_\_, as Host Control Area operator (as such term is referred to in the ISO Dynamic Scheduling Protocol), collectively referred to as "Parties," or individually as "Party," hereby request the certification of the Parties and the System Resource(s) identified in the table below as a provider of Ancillary Services and associated Energy to the ISO Control Area subject to the Dynamic Scheduling Protocol. Further, the Parties acknowledge that their ability to import Ancillary Services and associated Energy will be tested for certification in accordance with ISO Operating Procedure G-213.

With this request for certification, the Parties recognize that the ISO Tariff, Protocols, and applicable agreements require the Host Control Area operator to issue dynamic Energy schedules to the ISO based on the Scheduling Coordinator's self-provided or bid external imports of non-Regulation Ancillary Services from the System Resource(s) at any time during the operating hour.

With this request for certification, the Host Control Area operator represents and warrants that it has in place the required communications links with the ISO Control Area in order to facilitate the delivery of Ancillary Services and associated Energy from the System Resource.

With this request for certification, the Scheduling Coordinator represents and warrants that it has made the appropriate arrangements for and has put in place the equipment and services necessary for the delivery of Ancillary Services and associated Energy from the System Resource to the point of interchange ("Scheduling Point") with the ISO Control Area in accordance with the Dynamic Scheduling Protocol.

The Scheduling Coordinator further certifies that any and all dynamic imports of Energy associated with self-provided or bid imports of non-Regulation Ancillary Services will be deliverable over non-interruptible, non-recallable transmission rights, from the source of the associated Energy to the Scheduling Point with the ISO Control Area.

System Resource	External Host Control Area in which System Resource is Located	Scheduling Point (ISO interchange ID)	Maximum Amount of Ancillary Services Capacity to be Certified (MW)	Maximum Ramp Rate to be Certified (MW/minute)
1				
2				
3				
4				
5				

Subsequent to the initial filing of this request for certification with the ISO, any prospective changes jointly made by the Parties may be filed with the Scheduling Coordinator's ISO Client Relations representative, who will acknowledge the receipt of such requested changes and indicate the date on which such changes may be tested and become effective if ISO testing proves successful. Such changes will be made by the ISO as soon as practicable, with reasonable efforts made to implement them within sixty (60) days of receipt of the requested changes.

This document \_\_\_\_\_ (does) \_\_\_\_\_ (does not) contain requested changes to previously effective certification.

Certification Requested By:

\_\_\_\_\_, as the Scheduling Coordinator

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

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

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

\_\_\_\_\_, as the Host Control Area Operator

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

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

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

CERTIFICATION REQUEST ACKNOWLEDGED by:

\_\_\_\_\_

California Independent System Operator Corporation

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

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

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

**ISO TARIFF APPENDIX Y**  
**Scheduling Protocol (SP)**

### **Scheduling Protocol (SP)**

#### **SP 3.2 Day-Ahead Market**

The Day-Ahead Market is a forward market for Energy and Ancillary Services. The Day-Ahead Market operates individually for each Settlement Period of the Trading Day. The Day-Ahead Market starts at 6:00 pm two days ahead of the Trading Day and ends at 1:00 pm on the day ahead of the Trading Day, at which time the ISO issues the Final Day-Ahead Schedules.

##### **SP 3.2.1 By 6:00 pm, Two Days Ahead**

By 6:00 pm two days ahead of the Trading Day (for example, by 6:00 pm on Monday for the Wednesday Trading Day), the ISO will publish, via WEnet, the following information for each Settlement Period of the Trading Day:

- (a) a forecast of conditions on the ISO Controlled Grid, including transmission line and other transmission facility Outages;
- (b) a forecast of Generation Meter Multipliers (GMMs), as developed in accordance with Section 27.2.1, at each Generator location and Scheduling Point;
- (c) a forecast of system Demands by Zone;
- (d) an estimate of the Ancillary Services requirements for the ISO Control Area (see the ASRP for the details on these requirements);
- (e) a forecast of Loop Flows over interfaces with other Control Areas;
- (f) a forecast of the potential for Congestion conditions;
- (g) a forecast of total and Available Transfer Capacity over certain rated transmission paths and Inter-Zonal Interfaces;
- (h) a description of any temporary adjustments to Ancillary Service standards that the ISO has determined by that time to make, in accordance with Section 8.2.2.

##### **SP 3.2.1.1 By 5:00 am, One Day Ahead**

By no later than 5:00 am on the day before the Trading Day, the ISO will notify Scheduling Coordinators of the Energy Requirements from any Reliability Must-Run Units which the ISO requires to run in the Trading Day, except in those instances where a Reliability Must-Run Unit requires more than one day's notice, in which case the ISO may notify the applicable Scheduling Coordinator more than one day in advance of the Trading Day;

##### **SP 3.2.1.2 By 6:00 am, One Day Ahead**

By no later than 6:00 am on the day before the Trading Day, Scheduling Coordinators that have been notified that a Reliability Must-Run Unit is required to run in the Trading Day will inform the ISO, with regard to each hour for which the ISO has provided such

notice, whether the RMR Owner will take payment from the market or under the RMR Contract.

**SP 3.2.2 [Not Used]**

**SP 3.2.3 By 6:30 am, One Day Ahead**

By 6:30 am on the day ahead of the Trading Day (for example, by 6:30 am on Tuesday for the Wednesday Trading Day) and for each Settlement Period of the Trading Day: the ISO will provide to UDCs, via WEnet, the sum of the Scheduling Coordinators' Direct Access Demand Forecasts by UDC Service Area; and

**SP 3.2.4 By 8:00 am, One Day Ahead**

By 8:00 am on the day ahead of the Trading Day (for example, by 8:00 am on Tuesday for the Wednesday Trading Day), and for each Settlement Period of that Trading Day, Firm Transmission Rights owners will notify the ISO, via the Secondary Registration System or other means established by the ISO, of any transaction of Firm Transmission Rights and of any changes in Scheduling Coordinators' rights to schedule the use of Firm Transmission Rights at particular Inter-Zonal Interfaces.

**SP 3.2.5 By 8:30 am, One Day Ahead**

By 8:30 am on the day ahead of the Trading Day (for example, by 8:30 am on Tuesday for the Wednesday Trading Day), and for each Settlement Period of that Trading Day, Participating Transmission Owners will notify the ISO, via e-mail of an electronic spreadsheet or other means established by the ISO, of the amounts of transmission capacity to reserve for its transmission service customers under Existing Contracts at particular Inter-Zonal Interfaces. Upon receiving this information, the ISO will, by 9:00 am, calculate the Firm Transmission Rights available on each Inter-Zonal Interface after taking into account transfer capabilities and Existing Contract transmission capacity reservations, and then publish adjusted scheduling rights for Scheduling Coordinators scheduling the use of Firm Transmission Rights and Existing Contract rights. After publishing the adjusted scheduling rights for Existing Contract rights and Firm Transmission Rights, Scheduling Coordinators may submit contract usage templates for validation by the ISO prior to the ISO's deadline for receiving Preferred Day-Ahead Schedules.

**SP 3.2.6 By 10:00 am, One Day Ahead**

By 10:00 am on the day ahead of the Trading Day (for example, by 10:00 am on Tuesday for the Wednesday Trading Day), the following information flows for each Settlement Period of the Trading Day will be required to take place:

- (a) SCs will provide, via WEnet, the ISO with forecasts of their Direct Access Demand by UDC Service Area;
- (b) the ISO will publish, via WEnet, an updated forecast of system Demands and of the Ancillary Services requirements; and
- (c) the ISO will validate (in accordance with the SBP) the information submitted above by SCs and UDCs.

**SP 3.2.6.1 Actions by Scheduling Coordinators and the ISO**

By 10:00 am on the day ahead of the Trading Day (for example, by 10:00 am on Tuesday for the Wednesday Trading Day) and for each Settlement Period of that Trading Day (see SP 3.2.6.2 for information on the pre-validation performed at ten (10) minutes prior to the 10:00 am deadline):

- (a) Scheduling Coordinators will submit their Preferred Day-Ahead Schedules to the ISO;
- (b) Scheduling Coordinators will submit, as part of their Preferred Day-Ahead Schedules, their Adjustment Bids, if any, to the ISO;
- (c) Scheduling Coordinators will submit their Ancillary Services bids, if any, to the ISO in accordance with Section 8;
- (d) Scheduling Coordinators will submit their schedules for self-provided Ancillary Services, if any, to the ISO in accordance with the Appendix M and Section 2.5;
- (e) the ISO will validate all Scheduling Coordinator submitted Preferred Day-Ahead Schedules for Energy and Adjustment Bids and may assist Scheduling Coordinators to resolve mismatches in scheduled quantities or locations for Inter-Scheduling Coordinator Energy Trades in accordance with the procedure described in SP 3.2.6.4;
- (f) the ISO will validate all Scheduling Coordinator submitted schedules for self-provided Ancillary Services, Inter-Scheduling Coordinator Ancillary Service Trades, and Ancillary Services bids which were part of their Preferred Day-Ahead Schedules;
- (g) the ISO will validate all contract usage templates received from Scheduling Coordinators for scheduled uses of Existing Contract rights and Firm Transmission Rights;
- (h) the ISO will validate that all Scheduling Coordinator submitted Preferred Day-Ahead Schedules are compatible with the RMR requirements of which Scheduling Coordinators were notified for that Trading Day and with the Scheduling Coordinators' elected options for delivering the required Energy;
- (i) the ISO will start the first iteration of Inter-Zonal Congestion Management process as described in Section 27.1.1; and
- (j) the ISO will start the Ancillary Services bid evaluation process as described in Section 8.

**SP 3.2.6.2 Pre-validation**

At 10 minutes prior to the deadline for submittal of the Preferred Day-Ahead Schedules, Adjustment Bids, schedules for self-provided Ancillary Services, Inter-Scheduling Coordinator Ancillary Service Trades, and Ancillary Services bids (the "submittal"), the ISO shall conduct a pre-validation of the stage two validation described in Section 30.4. The purpose of this is to allow the Scheduling Coordinators, particularly those involved in the Inter-Scheduling Coordinator Energy Trades, to identify and resolve any validation

problems. The ISO will immediately communicate the results of each Scheduling Coordinator's pre-validation to that Scheduling Coordinator via WEnet.

**SP 3.2.6.3 Invalidation**

Except with respect to invalidated contract usage associated with Existing Contract rights or Firm Transmission Rights, invalidation of the submittal for any Settlement Period results in rejection of the submittal for that Settlement Period. Scheduling Coordinators will be notified of any invalid contract usage via an invalidated contract usage template issued, via the WEnet, by the ISO. Invalidation of contract usage will not cause the rejection of the Scheduling Coordinator's submittal; instead, invalid contract usage will be treated as new firm uses of ISO transmission service without the priorities and protections afforded the scheduled use of Existing Contract rights and Firm Transmission Rights. During the initial operations of the ISO, the ISO may assist Scheduling Coordinators to resolve mismatches in the scheduled quantities or locations for Inter-Scheduling Coordinator Energy Trades contained in their Preferred Schedules in accordance with SP 3.2.6.4. Except with respect to contract usage templates (for which Scheduling Coordinators can check whether or not their submittal will pass the ISO's validation checks between 9:00 am and 10:00 am), Scheduling Coordinators may check at any time prior to 10:00 am whether or not their submittal will pass the ISO's validation checks at 10:00 am. It is the responsibility of the Scheduling Coordinators to perform such checks since Preferred Day-Ahead Schedules, Adjustment Bids, Schedules of self-provided Ancillary Services, Inter-Scheduling Coordinator Ancillary Service Trades, and Ancillary Services bids which are invalidated cannot be resubmitted after 10:00 am for the Day-Ahead Market, except that, during the initial period of ISO operations, the ISO will allow resubmission of Preferred Schedules which have mismatches in the scheduled quantities or locations for Inter-Scheduling Coordinator Energy Trades. The ISO will immediately communicate the results of each Scheduling Coordinator's 10:00 am validation to that Scheduling Coordinator via WEnet. If the usage or sum of the usages associated with an Existing Contract results in the contract being over-scheduled, the usages will be adjusted such that a usage in excess of the Existing Contract rights will be considered a new firm use (NFU) and will be exposed to Congestion charges.

**SP 3.2.6.4 Inter-Scheduling Coordinator Energy Trades - Mismatches**

During the initial period of ISO operations, if the ISO detects a mismatch in the scheduled quantities or locations for Inter-Scheduling Coordinator Energy Trades, the ISO will promptly notify both the receiving and sending Scheduling Coordinators that a mismatch exists and will specify the time, which will allow them approximately one half-hour, by which they may submit modified Schedules which resolve the mismatch. If the Scheduling Coordinators are unable to resolve the mismatch as to quantities in the allotted time and provided there is no dispute as to whether the trade occurred or over its location, then the ISO may adjust the Scheduling Coordinators' Schedules in accordance with the following procedure:

- (a) The ISO will determine which Schedule contains the higher scheduled quantity of Energy for the Inter-Scheduling Coordinator Energy Trade and will reduce it so that it is equal to the lower scheduled quantity. However, if the Schedule specifying the higher scheduled quantity of Energy contains only Inter-Scheduling Coordinator Energy Trades, the ISO will increase the Schedule specifying the lower quantity of Energy so that it is equal to the higher scheduled quantity of Energy.

- (b) If there is a dispute between the Scheduling Coordinators as to whether the trade occurred or over its location, the ISO will remove the disputed trade from the Schedules in which it appears.
- (c) As a consequence of the adjustments under (a) or (b) above, the Scheduling Coordinators whose Schedules have been adjusted will no longer have a Balanced Schedule. The ISO will adjust their resources based on the following priority: Demands, exports, imports, Generation, and other Inter-Scheduling Coordinator Energy Trades.
- (d) The adjustments to each Scheduling Coordinator's portfolio will be based on the Adjustment Bids provided by the Scheduling Coordinator.
- (e) The ISO will notify each Scheduling Coordinator whose Schedule has been adjusted as to the adjustment in its Schedule.

**SP 3.2.7 By 11:00 am, One Day Ahead**

By 11:00 am on the day ahead of the Trading Day (for example, by 11:00 am on Tuesday for the Wednesday Trading Day) and for each Settlement Period of that Trading Day:

- (a) the ISO will complete the first iteration of the Inter-Zonal Congestion Management process described in SP 10 (if Inter-Zonal Congestion does not exist in any Settlement Period of the Trading Day, the scheduling process will continue with the steps at SP 3.2.9);
- (b) the ISO will provide, via WEnet, Suggested Adjusted Day-Ahead Schedules for Energy to all Scheduling Coordinators which submitted Preferred Day-Ahead Schedules at 10:00 am, including the Scheduling Coordinators which it is proposed should, as a result of Inter-Zonal Congestion Management, have their Preferred Day-Ahead Schedules modified;
- (c) the ISO will publish on WEnet the estimated Day-Ahead Usage Charge rate (in \$/MWh of scheduled flow) for Energy transfers between Zones; and
- (d) the ISO will provide, via WEnet, along with the Suggested Adjusted Day-Ahead Schedules, schedules for Ancillary Services to the Scheduling Coordinators which either:
  - (i) submitted Ancillary Services bids and which, as a result, are proposed to supply Ancillary Services; or
  - (ii) submitted schedules to self-provide Ancillary Services and which schedules have been accepted by the ISO.
- (e) the ISO will provide, via WEnet, the available contract capacity template associated with the Scheduling Coordinator's scheduled use of any Existing Contract rights or Firm Transmission Rights. If any derate of an Inter-Zonal Interface has occurred, the ISO will provide, via WEnet, the invalidated usage information template.



**SP 3.2.8 By 12:00 Noon, Day Ahead**

By 12:00 noon on the day ahead of the Trading Day (for example, by 12:00 noon on Tuesday for the Wednesday Trading Day) and for each Settlement Period of that Trading Day (except where Inter-Zonal Congestion does not exist, in which case, the scheduling process will omit this step):

**SP 3.2.8.1 Actions by Scheduling Coordinators and the ISO**

- (a) Scheduling Coordinators will submit Revised Day-Ahead Schedules to the ISO, in response to the ISO's Suggested Adjusted Day-Ahead Schedules;
- (b) Scheduling Coordinators will submit, as part of their Revised Day-Ahead Schedules, revised Adjustment Bids (allowing the range of usage to change, but not the prices), if any, to the ISO;
- (c) Scheduling Coordinators will submit revised Ancillary Services bids, if any, to the ISO in accordance with Section 8;
- (d) Scheduling Coordinators will submit their schedules for self-provided Ancillary Services, if any, to the ISO in accordance with Section 8;
- (e) the ISO will validate all Scheduling Coordinator submitted Revised Day-Ahead Schedules for Energy and Adjustment Bids and may assist Scheduling Coordinators to resolve mismatches in scheduled quantities or locations for Inter-Scheduling Coordinator Energy Trades in accordance with the same procedure described in SP 3.2.8.4;
- (f) the ISO will validate all Scheduling Coordinator submitted schedules for self-provided Ancillary Services and Ancillary Services bids which were part of their Revised Day-Ahead Schedules;
- (g) the ISO will validate all contract usage templates received from Scheduling Coordinators for scheduled uses of Existing Contract rights and Firm Transmission Rights.
- (h) the ISO will start the second (and final) iteration of the Inter-Zonal Congestion Management process as described in Section 27.1.1;
- (i) the ISO will start the second (and final) iteration of the Ancillary Services bid evaluation process as described in Section 8; and
- (j) the ISO will use the Scheduling Coordinator's Preferred Day-Ahead Schedule in the event the Scheduling Coordinator does not submit a Revised Day-Ahead Schedule. If a Scheduling Coordinator desires to revise only part of its Preferred Day-Ahead Schedule, those portions of the Revised Day-Ahead Schedule must be submitted, including both the removal of any resources in the Preferred Day-Ahead Schedule which are not to be included in the Revised Day-Ahead Schedule and the addition of any resources that were not included in the Preferred Day-Ahead Schedule but that are to be included in the Revised Day-Ahead Schedule. A Scheduling Coordinator's failure to remove such resources will cause the Revised Schedule to be unbalanced, and rejected as such in the ISO's validation process.

**SP 3.2.8.2 Pre-validation**

At 10 minutes prior to the deadline for submittal of the Revised Day-Ahead Schedules, Adjustment Bids, schedules for self-provided Ancillary Services, Inter-Scheduling Coordinator Ancillary Service Trades, and Ancillary Services bids (the "submittal"), the ISO shall conduct a pre-validation of the stage two validation described in Section 30.4. The purpose of this is to allow the Schedule Coordinators, particularly those involved in Inter-Scheduling Coordinator Energy Trades, to identify and resolve any validation problems. The ISO will immediately communicate the results of the pre-validation of each Schedule Coordinator's submittal to that Scheduling Coordinator via WEnet.

**SP 3.2.8.3 Invalidation**

Except with respect to invalidated contract usage associated with Existing Contract rights or Firm Transmission Rights, invalidation of the submittal for any Settlement Period results in rejection of the submittal for that Settlement Period. Scheduling Coordinators will be notified of any invalid contract usage via an invalidated contract usage template issued, via the WEnet, by the ISO. Invalidation of contract usage will not cause the rejection of the Scheduling Coordinator's submittal; instead, invalid contract usage will be treated as new firm uses of ISO transmission service without the priorities and protections afforded the scheduled use of Existing Contract rights and Firm Transmission Rights. During the initial operations of the ISO, the ISO may assist Scheduling Coordinators to resolve mismatches in the scheduled quantities or locations for Inter-Scheduling Coordinator Energy Trades in accordance with 3.2.8.4. Except with respect to contract usage templates, Scheduling Coordinators may check at any time prior to 12:00 noon whether or not their submittal will pass the ISO's validation checks (which are undertaken at 12:00 noon). It is the responsibility of the Scheduling Coordinators to perform such checks since Revised Day-Ahead Schedules, Adjustment Bids, schedules of self-provided Ancillary Services, Inter-Scheduling Coordinator Ancillary Service Trades, and Ancillary Services bids which are invalidated cannot be resubmitted after 12:00 noon for the Day-Ahead Market, except that during the initial period of operations, the ISO will allow resubmission of Schedules to resolve mismatches in the scheduled quantities and locations for Inter-Scheduling Coordinator Energy Trades. The ISO will immediately communicate the results of each Scheduling Coordinator's 12:00 noon validation to that Scheduling Coordinator via WEnet. If the usage or sum of the usages associated with an Existing Contract results in the contract being over-scheduled, the usages will be adjusted such that a usage in excess of the Existing Contract rights will be considered a new firm use (NFU) and will be exposed to Congestion charges.

**SP 3.2.8.4 Inter-Scheduling Coordinator Energy Trades - Mismatches**

During the initial period of ISO operations, if the ISO detects a mismatch in the scheduled quantities or locations for Inter-Scheduling Coordinator Energy Trades, the ISO will promptly notify both the receiving and sending Scheduling Coordinators that a mismatch exists and will specify the time, which will allow them approximately one half-hour, by which they may submit modified Schedules which resolve the mismatch. If the Scheduling Coordinators are unable to resolve the mismatch as to quantities in the allotted time and provided there is no dispute as to whether the trade occurred or over its location, the ISO may adjust the Scheduling Coordinators' Schedules in accordance with the following procedure:

- (a) The ISO will determine which Schedule contains the higher scheduled quantity of Energy for the Inter-Scheduling Coordinator Energy Trade and will reduce it so that it is equal to the lower scheduled quantity. However, if the Schedule specifying the higher scheduled quantity of Energy contains only Inter-

Scheduling Coordinator Energy Trades, the ISO will increase the Schedule specifying the lower quantity of Energy so that it is equal to the higher scheduled quantity of Energy.

- (b) If there is a dispute between the Scheduling Coordinators as to whether the trade occurred or over its location, the ISO will remove the disputed trade from the Schedules in which it appears.
- (c) As a consequence of the adjustments under (a) or (b) above, the Scheduling Coordinators whose Schedules have been adjusted will no longer have a Balanced Schedule. The ISO will adjust their resources based on the following priority: Demands, exports, imports, Generation, and other Inter-Scheduling Coordinator Energy Trades.
- (d) The adjustments to each Scheduling Coordinator's portfolio will be based on the Adjustment Bids provided by the Scheduling Coordinator.
- (e) The ISO will notify each Scheduling Coordinator whose Schedule has been adjusted as to the adjustment in its Schedule.

**SP 3.2.9 By 1:00 pm, Day Ahead**

By 1:00 pm on the day ahead of the Trading Day (for example, by 1:00 pm on Tuesday for the Wednesday Trading Day) and for each Settlement Period of that Trading Day:

- (a) the ISO will complete the second iteration, if necessary, of the Inter-Zonal Congestion Management process described in Section 27.1.1;
- (b) the ISO will provide, via WEnet, Final Day-Ahead Schedules to all Scheduling Coordinators which, depending on the existence of Inter-Zonal Congestion, could be:
  - (i) the Preferred Day-Ahead Schedules (when no Congestion was found at 11:00 am and no mismatched Inter-Scheduling Coordinator Energy Trades);
  - (ii) the Revised Day-Ahead Schedules (when no Congestion was found at 1:00 pm and no mismatched Inter-Scheduling Coordinator Energy Trades);
  - (iii) modified Revised Day-Ahead Schedules for those Scheduling Coordinators which had their Revised Day-Ahead Schedules for Energy modified for Inter-Zonal Congestion or mismatches in Inter-Scheduling Coordinator Energy Trades; or
  - (iv) modified Preferred Day-Ahead Schedules for those Scheduling Coordinators which had their Preferred Schedule for Energy modified for Inter-Scheduling Coordinator Energy Trade mismatches;
- (c) the ISO will publish on WEnet the Day-Ahead Usage Charge rate (in \$/MWh of scheduled flow) for Energy transfer between Zones, if any;
- (d) the ISO will provide, via WEnet, as part of the Final Day-Ahead Schedules, schedules for Ancillary Services to the Scheduling Coordinators which either:

- (i) submitted Ancillary Services bids and which, as a result, have been selected to supply Ancillary Services; or
  - (ii) submitted schedules to self-provide Ancillary Services and which schedules have been validated by the ISO; and
  - (iii) specified Inter-Scheduling Coordinator Ancillary Service Trades which have been validated by the ISO; and
- (e) the ISO will coordinate with adjacent Control Areas on the net schedules between the ISO Control Area and such other Control Areas. If the ISO and the operator of an adjacent Control Area have different records with respect to the net schedules, individual Scheduling Coordinator intertie schedules will be examined. If the other Control Area's records are determined to be correct, the ISO will notify the affected Scheduling Coordinator. If the other Control Area Operator's records are in error, no changes will be required by the ISO or affected Scheduling Coordinators. The affected Scheduling Coordinator is required to correct its schedule in the Hour-Ahead Market.

**SP 3.2.10 By 1:30 pm, Day Ahead**

By 1:30 pm on the day ahead of the Trading Day (for example, by 1:30 pm on Tuesday for the Wednesday Trading Day) and for each Settlement Period of the Trading Day the ISO will publish, via WENet, an updated forecast of system Demands.

**SP 3.2.11 Between 1:00 p.m. and 10:00 p.m.**

If, at any time after 1:00 p.m. and before 10:00 p.m. of the day prior to the Trading Day, the ISO determines that it requires Ancillary Services in addition to those provided through the Final Day-Ahead Schedules issued under SP 3.2.9, it may procure such additional Ancillary Services by providing to Scheduling Coordinators, via WENet, amended schedules for Ancillary Services that had been bid in the Day-Ahead Market but were not previously selected in the Final Day-Ahead Schedules, and have not been previously withdrawn. The ISO shall select such Ancillary Services in price merit order (and in the relevant Zone if the ISO is procuring Ancillary Services on a Zonal basis). Such amended schedules shall be provided to the Scheduling Coordinators no later than 10:00 p.m. of the day prior to the Trading Day.

**SP 3.3 Hour-Ahead Market**

- (a) The Hour-Ahead Market is a "deviations" market in that it represents changes from the Day-Ahead Market commitments already made for each Settlement Period in the Trading Day. The Scheduling Coordinators do not schedule these deviations. Instead, these deviations are calculated by the ISO as the difference between the Final Hour-Ahead Schedules (reflecting updated forecasts of Generation, Demand, external imports/exports and Inter-Scheduling Coordinator Energy Trades) and the Final Day-Ahead Schedules. If a Scheduling Coordinator does not submit a valid Preferred Hour-Ahead Schedule, its Final Day-Ahead Schedule will be deemed to be its Preferred Hour-Ahead Schedule.
- (b) The Hour-Ahead Markets for each Settlement Period of each Trading Day open when the Day-Ahead Market commitments are made for the same Trading Day. Hour-Ahead Market commitments are made one hour ahead of the start of the applicable Settlement Period, at which time the ISO issues the Final Hour-Ahead

Schedules. There is an option in the bid submittal process for a Scheduling Coordinator to submit a Schedule or bid for one Settlement Period of the Trading Day or a set of Schedules and bids for all Settlement Periods of the Trading Day (but only between 1:00 pm and 12:00 midnight the day before).

- (c) For each Hour-Ahead Market of the Trading Day the ISO's validation of Scheduling Coordinators' contract usage templates, associated with Existing Contract rights or Firm Transmission Rights, will be performed. If a derate of an Inter-Zonal Interface has occurred which affects a Scheduling Coordinator's Final Day-Ahead Schedule or Ancillary Service commitments, the ISO will notify the Scheduling Coordinator, via the WEnet, of its available contract capacity. Additionally, the ISO will validate Scheduling Coordinators' scheduled usage against Scheduling Coordinators' contract usage templates and notify Scheduling Coordinators of any invalidated usage. Such validations and notifications associated with contract usage, available contract capacities and invalidated contract usage will occur during the two hours prior to the ISO's deadline for receiving Preferred Hour-Ahead Schedules.

**SP 3.3.1 By Two Hours and Fifteen Minutes Ahead**

By two hours and fifteen minutes ahead of the Settlement Period (for example, by 9:45 am for the Settlement Period starting at 12:00 noon [or hour ending 1300]) and with respect to that Settlement Period:

**SP 3.3.1.1 Actions by Scheduling Coordinators and the ISO**

- (a) Scheduling Coordinators will submit their Preferred Hour-Ahead Schedules to the ISO;
- (b) Scheduling Coordinators will submit, as part of their Preferred Hour-Ahead Schedules, their Adjustment Bids, if any, to the ISO;
- (c) Scheduling Coordinators will submit their Ancillary Services bids, if any, to the ISO in accordance with Section 8;
- (d) Scheduling Coordinators will submit their Schedules for self-provided Ancillary Services and Inter-Scheduling Coordinator Ancillary Service Trades, if any, to the ISO in accordance with Section 8;
- (e) the ISO will validate all Scheduling Coordinator submitted Preferred Hour-Ahead Schedules for Energy and Adjustment Bids;
- (f) Scheduling Coordinators will submit contract usage templates for scheduled uses of Existing Contract rights and Firm Transmission Rights in accordance with the Hour-Ahead Market schedule, including usage template changes needed in response to line derations;
- (g) the ISO will validate all contract usage templates received from Scheduling Coordinators for scheduled uses of Existing Contract rights and Firm Transmission Rights;
- (h) the ISO will validate all Scheduling Coordinator submitted Schedules for self-provided Ancillary Services, Inter-Scheduling Coordinator Ancillary Service

Trades, and Ancillary Services bids which were part of their Preferred Hour-Ahead Schedules;

- (i) the ISO will start the Inter-Zonal Congestion Management process as described in Section 27.1.1;
- (j) the ISO will start the Ancillary Services bid evaluation process as described in Section 2.5; and
- (k) the ISO will validate that all Scheduling Coordinator submitted Preferred Hour-Ahead Schedules are compatible with the RMR requirements of which Scheduling Coordinators were notified for that Trading Day and with the Scheduling Coordinators' elected options for delivering the required Energy.

**SP 3.3.1.2 Pre-validation**

At 10 minutes prior to the deadline for submittal of the Preferred Hour-Ahead Schedules, Adjustment Bids, schedules for self-provided Ancillary Services, Inter-Scheduling Coordinator Ancillary Service Trades, and Ancillary Services bids (the "submittal"), the ISO shall conduct a pre-validation of the stage two validation described in Section 30.4. The purpose of this is to allow the Scheduling Coordinators, particularly those involved in the Inter-Scheduling Coordinator Energy Trades, to identify and resolve any validation problems. The ISO will immediately communicate the results of the pre-validation of each Scheduling Coordinator's submittal to that Scheduling Coordinator via WEnet.

**SP 3.3.1.3 Invalidation**

Except with respect to invalidated contract usage associated with Existing Contract rights or Firm Transmission Rights, invalidation of the submittal results in rejection of the submittal. Scheduling Coordinators will be notified of any invalid contract usage via an invalidated contract usage template issued, via the WEnet, by the ISO. Invalidation of contract usage will not cause the rejection of the Scheduling Coordinator's submittal; instead, invalid contract usage will be treated as new firm uses of ISO transmission service without the priorities and protections afforded the scheduled use of Existing Contract rights and Firm Transmission Rights. Scheduling Coordinators may check at any time prior to two hours and fifteen minutes ahead of the relevant Settlement Period whether or not their submittals will pass the ISO's validation checks (which are undertaken at two hours and fifteen minutes ahead of the Settlement Period). It is the responsibility of Scheduling Coordinators to perform such checks since Preferred Hour-Ahead Schedules, Adjustment Bids, schedules of self-provided Ancillary Services, Inter-Scheduling Coordinator Ancillary Service Trades and Ancillary Services bids which are invalidated cannot be resubmitted for the Hour-Ahead Market after two hours and fifteen minutes ahead of the relevant Settlement Period. The ISO will immediately communicate the results of each Scheduling Coordinator's two hour and fifteen minute ahead validation to that Scheduling Coordinator via WEnet. If the usage or sum of the usages associated with an Existing Contract results in the contract being over-scheduled, the usages will be adjusted such that a usage in excess of the Existing Contract rights will be considered a new firm use (NFU) and will be exposed to Congestion charges.

**SP 3.3.2 By One Hour Ahead**

By one hour ahead of the Settlement Period (for example, by 11:00 am for the Settlement Period starting at 12:00 noon [or hour ending 1300]) and in respect of that Settlement Period:

- (a) The ISO will use the Scheduling Coordinator's Final Day-Ahead Schedule, without any Day-Ahead Adjustment Bids or Day-Ahead Ancillary Service bids, in the event the Scheduling Coordinator's Preferred Hour-Ahead Schedule fails validation. If a Scheduling Coordinator desires to submit an Hour-Ahead Schedule that is different than its Final Day-Ahead Schedule the Scheduling Coordinator must submit the Hour-Ahead Schedule including the addition or removal of any resources (i.e., for those resources to be removed, a zero value for the hourly MW quantity) in its Final Day-Ahead Schedule that are to be added, or that are not to be included, in the Hour-Ahead Schedule. A Scheduling Coordinator's failure to add or remove such resources will cause the Hour-Ahead Schedule to be unbalanced, and rejected as such in the ISO's validation process.
- (b) the ISO will complete, if necessary, the Inter-Zonal Congestion Management process described in Section 27.1.1;
- (c) the ISO will provide, via WEnet, Final Hour-Ahead Schedules for Energy to the ISO's real-time dispatchers for use under the DP and to all Scheduling Coordinators which, depending on the existence of Inter-Zonal Congestion, could be:
  - (i) the Preferred Hour-Ahead Schedules (when no Congestion was found at one hour ahead); or
  - (ii) modified Preferred Hour-Ahead Schedules for those Scheduling Coordinators which had their Preferred Hour-Ahead Schedules for Energy modified for Inter-Zonal Congestion; and
- (d) the ISO will publish on WEnet the Hour-Ahead Usage Charge rate (in \$/MWh of scheduled flow) for Energy transfers between Zones, if any;
- (e) the ISO will provide, via WEnet, as part of the Final Hour-Ahead Schedules, schedules for Ancillary Services to the ISO's real-time dispatchers and to the Scheduling Coordinators which either:
  - (i) submitted Ancillary Services bids and which, as a result, have been selected to supply Ancillary Services; or
  - (ii) specified Inter-Scheduling Coordinator Ancillary Service Trades, or submitted schedules to self-provide Ancillary Services and which schedules have been validated by the ISO; and
- (f) each Scheduling Coordinator will provide the ISO, via a form and by means of communication specified by the ISO, resource specific information for all Generating Units and Curtailable Demands constituting its System Unit, if any, scheduled or bid into the ISO's Day-Ahead Market and/or Hour-Ahead Market for Ancillary Services.
- (g) the ISO will coordinate with adjacent Control Areas on the net schedules between the ISO Control Area and such other Control Areas. If the ISO and the operator of an adjacent Control Area have different records with respect to the net schedules, individual Scheduling Coordinator intertie schedules will be examined. If the other Control Area operator's records were in error, no changes will be required by the ISO or Scheduling Coordinators. If the other Control Area operator's records are determined to be correct, the ISO will notify the affected Scheduling Coordinator. The ISO will manually adjust the affected Scheduling

Coordinator's schedule to conform with the other Control Area operator's net schedule, in real time, and the affected Scheduling Coordinator will be responsible for managing any resulting Energy imbalance.



**[NOT USED]**

**Appendix Z (Sheets 1171 through 1206)**

**Rejected by FERC – April 19, 2007 Order (119 FERC ¶ 61,053)**

**Docket: ER06-700-002 and ER06-700-003**

**ISO TARIFF APPENDIX AA**  
**SMALL GENERATOR**  
**INTERCONNECTION PROCEDURES (SGIP)**

**SMALL GENERATOR  
INTERCONNECTION PROCEDURES (SGIP)**

**(For Generating Facilities No Larger Than 20 MW)**

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## **SECTION 1. OBJECTIVES, DEFINITIONS, AND APPLICATION.**

### 1.1 Objectives

The objective of this SGIP is to implement FERC's Order No. 2006 setting forth the requirements for Small Generating Facility interconnections to the ISO Controlled Grid.

### 1.2 Definitions

#### 1.2.1 Master Definitions Supplement

Unless the context otherwise requires, any word or expression defined in the Master Definitions Supplement to the ISO Tariff shall have the same meaning where used in this SGIP. A reference to a Section or an Appendix is a reference to a Section or an Appendix of the ISO Tariff. References to SGIP are to this Protocol or to the stated paragraph of this Protocol.

#### 1.2.2 Special Definitions for this SGIP

In this SGIP, the following words and expressions shall have the meanings set opposite them:

**"10 kW Inverter Process"** shall mean the procedure for evaluating an Interconnection Request for a certified inverter-based Small Generating Facility no larger than 10 kW that uses the SGIP Section 2 screens. The application process uses an all-in-one document that includes a simplified Interconnection Request, simplified procedures, and a brief set of terms and conditions. See SGIP Attachment 5.

**"Fast Track Process"** shall mean the procedure for evaluating an Interconnection Request for a certified Small Generating Facility no larger than 2 MW that includes the SGIP Section 2 screens, customer options meeting, and optional supplemental review.

**"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 the Interconnection Customer, ISO, or Participating TO, or any Affiliate thereof.

**"Party" or "Parties"** shall mean the ISO, Participating TO(s), Interconnection Customer or the applicable combination of the above.

**"Study Process"** shall mean the procedure for evaluating an Interconnection Request that includes the Scoping Meeting, feasibility study, system impact study, and facilities study, as set forth in Section 3 of this SGIP.

### 1.3 Application

The applicability of this SGIP is set forth in Section 5.7 of the ISO Tariff. As specified in more detail in Section 5.7 of the ISO Tariff, these procedures are applicable to each new Generating Facility with a Generating Facility Capacity of 20 MW or less, or the expansion of an existing Generating Facility with a resultant Generating Facility Capacity of 20 MW or less, that seeks to

interconnect to the ISO Controlled Grid. Any proposed interconnection of a new Generating Facility to a Participating TO's Distribution System will be processed, as applicable, pursuant to the applicable Participating TO's Wholesale Distribution Access Tariff or CPUC Rule 21, or other Local Regulatory Authority requirements of the Participating TO. For any proposed interconnection of a new Generating Facility with a Generating Facility Capacity of 20 MW or less wherein the Interconnection Customer desires the ISO to perform a Deliverability Assessment, the Interconnection Customer shall submit an Interconnection Request to the ISO under the Large Generator Interconnection Procedures in lieu of these Small Generator Interconnection Procedures, as specified in Section 2.8 of this SGIP.

1.3.1 Applicability

- 1.3.1.1 A request to interconnect a certified Small Generating Facility (See Attachments 3 and 4 for description of certification criteria) no larger than 2 MW shall be evaluated under the SGIP Section 2 Fast Track Process. A request to interconnect a certified inverter-based Small Generating Facility no larger than 10 kW shall be evaluated under the Attachment 5 10 kW Inverter Process. A request to interconnect a Small Generating Facility larger than 2 MW but no larger than 20 MW or a Small Generating Facility that does not pass the Fast Track Process or the 10 kW Inverter Process shall be evaluated under the Study Process set forth in Section 3 of this SGIP.
- 1.3.1.2 Neither these procedures nor the requirements included hereunder apply to Small Generating Facilities interconnected or approved for interconnection prior to 60 Business Days after the effective date of these procedures.
- 1.3.1.3 Prior to submitting its Interconnection Request (Attachment 2), the Interconnection Customer may ask the ISO's interconnection contact employee or office whether the proposed interconnection is subject to these procedures. The ISO shall respond within 15 Business Days.
- 1.3.1.4 Infrastructure security of electric system equipment and operations and control hardware and software is essential to ensure day-to-day reliability and operational security. The Federal Energy Regulatory Commission expects all transmission providers, market participants, and Interconnection Customers interconnected with electric systems to comply with the recommendations offered by the President's Critical Infrastructure Protection Board and best practice recommendations from the electric reliability authority. All public utilities are expected to meet basic standards for electric system infrastructure and operational security, including physical, operational, and cyber-security practices.
- 1.3.1.5 References in these procedures to interconnection agreement are to the Small Generator Interconnection Agreement (SGIA).

1.3.2 Pre-Application

The ISO shall designate an employee or office from which information on the application process and on an Affected System can be obtained through informal requests from the Interconnection Customer presenting a proposed project for a specific site. The name, telephone number, and e-mail address of such contact employee or office shall be made available on the ISO's Internet web site. The ISO Controlled Grid information provided to the Interconnection Customer should include relevant system studies, interconnection studies, and other materials useful to an understanding of an interconnection at a particular point on the ISO Controlled Grid, to the extent such provision does not violate confidentiality provisions of prior agreements or critical infrastructure requirements. The ISO shall comply with reasonable requests for such information.

1.3.3 Interconnection Request

The Interconnection Customer shall submit its Interconnection Request to the ISO, together with the processing fee or deposit specified in the Interconnection Request. The Interconnection Request shall be date- and time-stamped upon receipt. The original date and time stamp applied to the Interconnection Request at the time of its original submission shall be accepted as the qualifying date- and time-stamp for the purposes of any timetable in these procedures. The Interconnection Customer shall be notified of receipt by the ISO within three (3) Business Days of receiving the Interconnection Request. The ISO shall notify the Interconnection Customer within ten (10) Business Days of the receipt of the Interconnection Request as to whether the

Interconnection Request is complete or incomplete. If the Interconnection Request is incomplete, the ISO shall provide a notice that the Interconnection Request is incomplete, along with a written list detailing all information that must be provided to complete the Interconnection Request. The Interconnection Customer will have ten (10) Business Days after receipt of the notice to submit the listed information or to request an extension of time to provide such information. If the Interconnection Customer does not provide the listed information or a request for an extension of time within the deadline, the Interconnection Request will be deemed withdrawn. An Interconnection Request will be deemed complete upon submission of the listed information to the ISO.

1.3.4 Modification of the Interconnection Request

Any modification to machine data or equipment configuration, or to the interconnection site of the Small Generating Facility not agreed to in writing by the ISO and the Interconnection Customer may be deemed a withdrawal of the Interconnection Request and may require submission of a new Interconnection Request, unless proper notification of each Party by the other and a reasonable time to cure the problems created by the changes are undertaken.

1.3.5 Site Control

Documentation of site control must be submitted with the Interconnection Request. Site control may be demonstrated through:

- 1.3.5.1 Ownership of, a leasehold interest in, or a right to develop a site for the purpose of constructing the Small Generating Facility;
- 1.3.5.2 An option to purchase or acquire a leasehold site for such purpose; or
- 1.3.5.3 An exclusivity or other business relationship between the Interconnection Customer and the entity having the right to sell, lease, or grant the Interconnection Customer the right to possess or occupy a site for such purpose.

1.3.6 Queue Position

The ISO shall assign a Queue Position based upon the date- and time- stamp of the Interconnection Request. The Queue Position of each Interconnection Request will be used to determine the cost responsibility for the Upgrades necessary to accommodate the interconnection. The ISO shall maintain a single queue for the ISO Control Area. At the ISO's option, in coordination with the applicable Participating TO, Interconnection Requests may be studied serially or in clusters for the purpose of the system impact study.

1.3.7 Interconnection Requests Submitted Prior to the Effective Date of the SGIP

Nothing in this SGIP affects an Interconnection Customer's Queue Position assigned before the effective date of this SGIP. The Parties agree to complete work on any interconnection study agreement executed prior the effective date of this SGIP in accordance with the terms and conditions of that interconnection study agreement. Any new studies or other additional work will be completed pursuant to this SGIP.

1.3.8 Request for Deliverability Assessment

An Interconnection Customer seeking to interconnect to the ISO Controlled Grid that desires to have a Deliverability Assessment performed for the Small Generating Facility shall be required to have its Interconnection Request processed under the Large Generator Interconnection Procedures (LGIP) or ISO Tariff Appendix W, as applicable.



## SECTION 2. FAST TRACK PROCESS

### 2.1 Applicability

The Fast Track Process is available to an Interconnection Customer proposing to interconnect its Small Generating Facility with the ISO Controlled Grid if the Small Generating Facility is no larger than 2 MW and if the Interconnection Customer's proposed Small Generating Facility meets the codes, standards, and certification requirements of Attachments 3 and 4 of these procedures, or the applicable Participating TO has reviewed the design or tested the proposed Small Generating Facility and is satisfied that it is safe to operate.

### 2.2 Initial Review

Within 15 Business Days after the ISO notifies the Interconnection Customer it has received a complete Interconnection Request, the applicable Participating TO shall perform an initial review using the screens set forth below, shall notify the Interconnection Customer of the results, and include with the notification copies of the analysis and data underlying the Participating TO's determinations under the screens.

#### 2.2.1 Screens

- 2.2.1.1 The proposed Small Generating Facility's Point of Interconnection must be on a portion of the Participating TO's Distribution System that is subject to the ISO Tariff.
- 2.2.1.2 For interconnection of a proposed Small Generating Facility to a radial distribution circuit, the aggregated generation, including the proposed Small Generating Facility, on the circuit shall not exceed 15% of the line section annual peak load as most recently measured at the substation. A line section is that portion of a Participating TO's electric system connected to a customer bounded by automatic sectionalizing devices or the end of the distribution line.
- 2.2.1.3 For interconnection of a proposed Small Generating Facility to the load side of spot network protectors, the proposed Small Generating Facility must utilize an inverter-based equipment package and, together with the aggregated other inverter-based generation, shall not exceed the smaller of 5% of a spot network's maximum load or 50 kW<sup>1</sup>.
- 2.2.1.4 The proposed Small Generating Facility, in aggregation with other generation on the distribution circuit, shall not contribute more than 10% to the distribution circuit's maximum fault current at the point on the high voltage (primary) level nearest the proposed point of change of ownership.
- 2.2.1.5 The proposed Small Generating Facility, in aggregate with other generation on the distribution circuit, shall not cause any distribution protective devices and equipment (including, but not limited to, substation breakers, fuse cutouts, and line reclosers), or Interconnection Customer equipment on the system to exceed 87.5% of the short circuit interrupting capability; nor shall the interconnection proposed for a circuit that already exceeds 87.5% of the short circuit interrupting capability.

<sup>1</sup> A spot Network is a type of distribution system found within modern commercial buildings to provide high reliability of service to a single customer. (Standard Handbook for Electrical Engineers, 11<sup>th</sup> edition, Donald Fink, McGraw Hill Book Company)

2.2.1.6 Using the table below, determine the type of interconnection to a primary distribution line. This screen includes a review of the type of electrical service provided to the Interconnecting Customer, including line configuration and the transformer connection to limit the potential for creating over-voltages on the Participating TO's electric power system due to a loss of ground during the operating time of any anti-islanding function.

Primary Distribution Line Type	Type of Interconnection to Primary Distribution Line	Result/Criteria
Three-phase, three wire	3-phase or single phase, phase-to-phase	Pass screen
Three-phase, four wire	Effectively-grounded 3 phase or Single-phase, line-to-neutral	Pass screen

2.2.1.7 If the proposed Small Generating Facility is to be interconnected on single-phase shared secondary, the aggregate generation capacity on the shared secondary, including the proposed Small Generating Facility, shall not exceed 20 kW.

2.2.1.8 If the proposed Small Generating Facility is single-phase and is to be interconnected on a center tap neutral of a 240 volt service, its addition shall not create an imbalance between the two sides of the 240 volt service of more than 20% of the nameplate rating of the service transformer.

2.2.1.9 The Small Generating Facility, in aggregate with other generation interconnected to the transmission side of a substation transformer feeding the circuit where the Small Generating Facility proposes to interconnect shall not exceed 10 MW in an area where there are known, or posted, transient stability limitations to generating units located in the general electrical vicinity (e.g., three or four transmission busses from the point of interconnection).

2.2.1.10 No construction of facilities by the Participating TO on its own system shall be required to accommodate the Small Generating Facility.

2.2.2 If the proposed interconnection passes the screens, the Interconnection Request shall be approved and the Participating TO will provide the Interconnection Customer an executable interconnection agreement within five Business Days after the determination.

2.2.3 If the proposed interconnection fails the screens, but the Participating TO determines that the Small Generating Facility may nevertheless be interconnected consistent with safety, reliability, and power quality standards, the Participating TO shall provide the Interconnection Customer an executable interconnection agreement within five Business Days after the determination.

2.2.4 If the proposed interconnection fails the screens, but the Participating TO does not or cannot determine from the initial review that the Small Generating Facility may nevertheless be interconnected consistent with safety, reliability, and power quality standards unless the Interconnection Customer is willing to consider minor modifications or further study, the Participating TO shall provide the Interconnection Customer with the opportunity to attend a customer options meeting.

2.3 Customer Options Meeting

If the Participating TO determines the Interconnection Request cannot be approved without minor modifications at minimal cost; or a supplemental study or other additional studies or actions; or at significant cost to address safety, reliability, or power quality problems, within the five Business Day period after the determination, the Participating TO shall notify the Interconnection Customer and provide copies of all data and analyses underlying its conclusion. Within ten Business Days of the Participating TO's determination, the Participating TO shall offer to convene a customer options meeting with the Participating TO to review possible Interconnection Customer facility modifications or the screen analysis and related results, to determine what further steps are needed to permit the Small Generating Facility to be connected safely and reliably. At the time of notification of the Participating TO's determination, or at the customer options meeting, the Participating TO shall:

- 2.3.1 Offer to perform facility modifications or minor modifications to the Participating TO's electric system (e.g., changing meters, fuses, relay settings) and provide a non-binding good faith estimate of the limited cost to make such modifications to the Participating TO's electric system; or
- 2.3.2 Offer to perform a supplemental review if the Participating TO concludes that the supplemental review might determine that the Small Generating Facility could continue to qualify for interconnection pursuant to the Fast Track Process, and provide a non-binding good faith estimate of the costs of such review; or
- 2.3.3 Obtain the Interconnection Customer's agreement to continue evaluating the Interconnection Request under the SGIP Section 3 Study Process.

2.4 Supplemental Review

If the Interconnection Customer agrees to a supplemental review, the Interconnection Customer shall agree in writing within 15 Business Days of the offer, and submit a deposit for the estimated costs. The Interconnection Customer shall be responsible for the Participating TO's actual costs for conducting the supplemental review. The Interconnection Customer must pay any review costs that exceed the deposit within 20 Business Days of receipt of the invoice or resolution of any dispute. If the deposit exceeds the invoiced costs, the Participating TO will return such excess within 20 Business Days of the invoice without interest.

- 2.4.1 Within ten Business Days following receipt of the deposit for a supplemental review, the Participating TO will determine if the Small Generating Facility can be interconnected safely and reliably.
  - 2.4.1.1 If so, the Participating TO shall forward an executable an interconnection agreement to the Interconnection Customer within five Business Days.
  - 2.4.1.2 If so, and Interconnection Customer facility modifications are required to allow the Small Generating Facility to be interconnected consistent with safety, reliability, and power quality standards under these procedures, the Participating TO shall forward an executable interconnection agreement to the Interconnection Customer within five Business Days after confirmation that the Interconnection Customer has agreed to make the necessary changes at the Interconnection Customer's cost.

- 2.4.1.3 If so, and minor modifications to the Participating TO's electric system are required to allow the Small Generating Facility to be interconnected consistent with safety, reliability, and power quality standards under the Fast Track Process, the Participating TO shall forward an executable interconnection agreement to the Interconnection Customer within ten Business Days that requires the Interconnection Customer to pay the costs of such system modifications prior to interconnection.
- 2.4.1.4 If not, the Interconnection Request will continue to be evaluated under the SGIP Section 3 Study Process.

### **SECTION 3. STUDY PROCESS**

#### **3.1 Applicability**

The Study Process shall be used by an Interconnection Customer proposing to interconnect its Small Generating Facility to the ISO Controlled Grid if the Small Generating Facility (1) is larger than 2 MW but no larger than 20 MW, (2) is not certified, or (3) is certified but did not pass the Fast Track Process or the 10 kW Inverter Process.

##### **3.1.1 Centralized Study Process**

- 3.1.1.1 The ISO will be the single point of contact for Interconnection Customer.
- 3.1.1.2 The ISO will be the central point of coordination to involve any Affected Systems.
- 3.1.1.3 The ISO will collect and disburse monies received from Interconnection Customers.
- 3.1.1.4 The ISO will execute interconnection study agreements. Each Interconnection Request will be subject to the direction and oversight of the ISO. The ISO will conduct or cause to be performed the required small generator interconnection studies and any additional studies the ISO determines to be reasonably necessary and will direct the applicable Participating TO to perform portions of studies where the Participating TO has specific and non-transferable expertise or data and can conduct the studies more efficiently and cost effectively than the ISO. The study results and final study report must be approved by the ISO.

#### **3.2 Scoping Meeting**

- 3.2.1 A Scoping Meeting will be held within ten (10) Business Days after the Interconnection Request is deemed complete, or as otherwise mutually agreed to by the Parties. The ISO, applicable Participating TO, and the Interconnection Customer will bring to the meeting personnel, including system engineers and other resources as may be reasonably required to accomplish the purpose of the meeting.
- 3.2.2 The purpose of the Scoping Meeting is to discuss the Interconnection Request and review existing studies relevant to the Interconnection Request. The Parties shall further discuss whether the ISO should conduct, or caused to be performed, a feasibility study or proceed directly to a system impact study, or a facilities study, or an interconnection agreement. If the Parties agree that a feasibility study should be performed, the ISO shall provide the Interconnection Customer, as soon as possible, but not later than five (5) Business Days after the Scoping Meeting, a feasibility study agreement (Attachment 6) including an outline of the scope of the study and a non-binding good faith estimate of the cost to perform the study.

3.2.3 The Scoping Meeting may be omitted by mutual agreement. In order to remain in consideration for interconnection, an Interconnection Customer who has requested a feasibility study must return the executed feasibility study agreement within fifteen (15) Business Days. If the Parties agree not to perform a feasibility study, the ISO shall provide the Interconnection Customer, no later than five (5) Business Days after the Scoping Meeting, a system impact study agreement (Attachment 7) including an outline of the scope of the study and a non-binding good faith estimate of the cost to perform the study.

3.3 Feasibility Study

3.3.1 The feasibility study shall identify any potential adverse system impacts or financial impacts, if any, on Local Furnishing Bonds that would result from the interconnection of the Small Generating Facility.

- 3.3.2 A deposit of the lesser of 50 percent of the good faith estimated feasibility study costs or earnest money of \$1,000 will be required from the Interconnection Customer.
  - 3.3.3 The scope of, and cost responsibilities for, the feasibility study are described in the attached feasibility study agreement.
  - 3.3.4 If the feasibility study shows no potential for adverse system impacts and financial impacts on Local Furnishing Bonds, the ISO shall send the Interconnection Customer a facilities study agreement, including an outline of the scope of the study and a non-binding good faith estimate of the cost to perform the study. If no additional facilities are required, the Participating TO shall send the Interconnection Customer an executable interconnection agreement within five (5) Business Days.
  - 3.3.5 If the feasibility study shows the potential for adverse system impacts or financial impacts on Local Furnishing Bonds, the review process shall proceed to the appropriate system impact study(s).
- 3.4 System Impact Study
- 3.4.1 A system impact study shall identify and detail the electric system impacts, including Local Furnishing Bond impacts, that would result if the proposed Small Generating Facility were interconnected without project modifications or electric system modifications, focusing on the adverse system impacts identified in the feasibility study, or to study potential impacts, including but not limited to those identified in the Scoping Meeting. A system impact study shall evaluate the impact of the proposed interconnection on the reliability of the electric system.
  - 3.4.2 If no ISO Controlled Grid system impact study is required, but potential electric power Distribution System adverse system impacts or Local Furnishing Bond impacts are identified in the Scoping Meeting or shown in the feasibility study, a Distribution System impact study must be performed by the applicable Participating TO. The applicable Participating TO shall send the Interconnection Customer a Distribution System impact study agreement within fifteen (15) Business Days of transmittal of the feasibility study report, including an outline of the scope of the study and a non-binding good faith estimate of the cost to perform the study, or following the Scoping Meeting if no feasibility study is to be performed.
  - 3.4.3 In instances where the feasibility study or the Distribution System impact study shows potential for ISO Controlled Grid adverse system impacts or Local Furnishing Bond adverse impacts, within five (5) Business Days following transmittal of the feasibility study report, the ISO shall send the Interconnection Customer a system impact study agreement, including an outline of the scope of the study and a non-binding good faith estimate of the cost to perform the study, if such a study is required.
  - 3.4.4 If an ISO Controlled Grid system impact study is not required, but electric power Distribution System adverse system impacts are shown by the feasibility study to be possible and no Distribution System impact study has been conducted, the applicable Participating TO shall send the Interconnection Customer a Distribution System impact study agreement.

- 3.4.5 If the feasibility study shows no potential for ISO Controlled Grid, Local Furnishing Bond, or Distribution System adverse system impacts, the ISO shall send the Interconnection Customer either a facilities study agreement (Attachment 8), including an outline of the scope of the study and a non-binding good faith estimate of the cost to perform the study, or the applicable Participating TO shall send an executable interconnection agreement, as applicable.
  - 3.4.6 In order to remain under consideration for interconnection, the Interconnection Customer must return executed system impact study agreements, if applicable, within thirty (30) Business Days.
  - 3.4.7 A deposit of the good faith estimated costs for each system impact study will be required from the Interconnection Customer.
  - 3.4.8 The scope of, and cost responsibilities for, a system impact study are described in the attached system impact study agreement.
  - 3.4.9 Where transmission systems and Distribution Systems have separate owners, such as is the case with transmission-dependent utilities ("TDUs") – whether investor-owned or not – the Interconnection Customer may apply to the nearest transmission provider (transmission owner, Regional Transmission Operator, or independent system operator) providing transmission service to the TDU to request project coordination. Affected Systems shall participate in the study and provide all information necessary to prepare the study.
- 3.5 Facilities Study
- 3.5.1 Once the required system impact study(s) is completed, a system impact study report shall be prepared and transmitted to the Interconnection Customer along with a facilities study agreement within five (5) Business Days, including an outline of the scope of the study and a non-binding good faith estimate of the cost to perform the facilities study. In the case where one or both impact studies are determined to be unnecessary, a notice of the fact shall be transmitted to the Interconnection Customer within the same timeframe.
  - 3.5.2 In order to remain under consideration for interconnection, or, as appropriate, in the ISO's interconnection queue, the Interconnection Customer must return the executed facilities study agreement or a request for an extension of time within thirty (30) Business Days.
  - 3.5.3 The facilities study shall specify and estimate the cost of the equipment, engineering, procurement and construction work (including overheads) needed to implement the conclusions of the system impact study(s).
  - 3.5.4 **[INTENTIONALLY LEFT BLANK]**



- 3.5.5 A deposit of the good faith estimated costs for the facilities study will be required from the Interconnection Customer.
- 3.5.6 The scope of, and cost responsibilities for, the facilities study are described in the attached facilities study agreement.
- 3.5.7 Within 30 Business Days after completion of the facilities study, the Interconnection Customer shall take one of the following actions: (i) agree to pay for Interconnection Facilities and Upgrades identified in the facilities study and request that the Participating TO tender an executable interconnection agreement, (ii) withdraw its Interconnection Request, or (iii) request that the Participating TO tender an executable interconnection agreement despite its disagreement with the costs therein. If requested, the Participating TO shall provide the Interconnection Customer an executable interconnection agreement within five (5) Business Days. Upon option (iii) herein, the Interconnection Customer may request that the interconnection agreement be filed unilaterally at FERC.

3.5.8 **[INTENTIONALLY LEFT BLANK]**

3.5.9 Engineering and Procurement Agreement

Prior to executing an SGIA, an Interconnection Customer may, in order to advance the implementation of its interconnection, request and the applicable Participating TO(s) shall offer the Interconnection Customer, an E&P Agreement that authorizes the applicable Participating TO(s) to begin engineering and procurement of long lead-time items necessary for the establishment of the interconnection. However, the applicable Participating TO(s) shall not be obligated to offer an E&P Agreement if the Interconnection Customer is in Dispute Resolution as a result of an allegation that the Interconnection Customer has failed to meet any milestones or comply with any prerequisites specified in other parts of the SGIP. 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 the Interconnection Customer to pay the cost of all activities authorized by the Interconnection Customer and to make advance payments or provide other satisfactory security for such costs.

The 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 the 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, the Interconnection Customer shall be obligated to pay the associated cancellation costs. To the extent that the equipment cannot be reasonably canceled, the applicable Participating TO(s) may elect: (i) to take title to the equipment, in which event the applicable Participating TO(s) shall refund the 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 the Interconnection Customer, in which event the Interconnection Customer shall pay any unpaid balance and cost of delivery of such equipment.

## SECTION 4. PROVISIONS THAT APPLY TO ALL INTERCONNECTION REQUESTS

### 4.1 Reasonable Efforts

The ISO shall make reasonable efforts to meet all time frames provided in these procedures unless the ISO and the Interconnection Customer agree to a different schedule. If the ISO cannot meet a deadline provided herein, it shall notify the Interconnection Customer, explain the reason for the failure to meet the deadline, and provide an estimated time by which it will complete the applicable interconnection procedure in the process.

### 4.2 Disputes

4.2.1 The Parties agree to attempt to resolve all disputes arising out of the interconnection process according to the provisions of this section.

4.2.2 In the event of a dispute, either Party shall provide the other Party with a written Notice of Dispute. Such Notice shall describe in detail the nature of the dispute.

4.2.3 If the dispute has not been resolved within two (2) Business Days after receipt of the Notice, either Party may contact FERC's Dispute Resolution Service (DRS) for assistance in resolving the dispute.

4.2.4 The DRS will assist the Parties in either resolving their dispute or in selecting an appropriate dispute resolution venue (e.g., mediation, settlement judge, early neutral evaluation, or technical expert) to assist the Parties in resolving their dispute. DRS can be reached at 1-877-337-2237 or via the internet at <http://www.ferc.gov/legal/adr.asp>.

4.2.5 Each Party agrees to conduct all negotiations in good faith and will be responsible for one-half of any costs paid to neutral third-parties.

4.2.6 If neither Party elects to seek assistance from the DRS, or if the attempted dispute resolution fails, then either Party may exercise whatever rights and remedies it may have in equity or law consistent with the terms of this SGIP.

### 4.3 Interconnection Metering

Any metering necessitated by the use of the Small Generating Facility shall be installed at the Interconnection Customer's expense in accordance with Federal Energy Regulatory Commission, state, or local regulatory requirements or the ISO's specifications.

### 4.4 Commissioning

Commissioning tests of the Interconnection Customer's installed equipment shall be performed pursuant to applicable codes and standards. The ISO and applicable Participating TO must be given at least five (5) Business Days written notice, or as otherwise mutually agreed to by the Parties, of the tests and may be present to witness the commissioning tests.

### 4.5. Confidentiality

4.5.1 Confidential Information shall mean any confidential and/or proprietary information provided by one Party to another Party that is clearly marked or otherwise designated "Confidential." For purposes of this SGIP, all design, operating specifications, and metering data provided by the Interconnection Customer shall be deemed Confidential Information regardless of whether it is clearly marked or otherwise designated as such.

- 4.5.2 Confidential Information does not include information previously in the public domain, required to be publicly submitted or divulged by Governmental Authorities (after notice to the other Parties and after exhausting any opportunity to oppose such publication or release), or necessary to be divulged in an action to enforce this SGIP. Each Party receiving Confidential Information shall hold such information in confidence and shall not disclose it to any third party nor to the public without the prior written authorization from the Party providing that information, except to fulfill obligations under this SGIP, or to fulfill legal or regulatory requirements.
- 4.5.2.1 Each Party shall employ at least the same standard of care to protect Confidential Information obtained from the other Parties as it employs to protect its own Confidential Information.
- 4.5.2.2 Each Party is entitled to equitable relief, by injunction or otherwise, to enforce its rights under this provision to prevent the release of Confidential Information without bond or proof of damages, and may seek other remedies available at law or in equity for breach of this provision.
- 4.5.3 Notwithstanding anything in this section to the contrary, and pursuant to 18 CFR § 1b.20, if FERC, during the course of an investigation or otherwise, requests information from one of the Parties that is otherwise required to be maintained in confidence pursuant to this SGIP, the Party shall provide the requested information to FERC, within the time provided for in the request for information. In providing the information to FERC, the Party may, consistent with 18 CFR § 388.112, request that the information be treated as confidential and non-public by FERC and that the information be withheld from public disclosure. Parties are prohibited from notifying the other Parties prior to the release of the Confidential Information to FERC. The Party shall notify the other Parties when it is notified by FERC that a request to release Confidential Information has been received by FERC, at which time any of the Parties may respond before such information would be made public, pursuant to 18 CFR § 388.112. Requests from a state regulatory body conducting a confidential investigation shall be treated in a similar manner if consistent with the applicable state rules and regulations.
- 4.6 Comparability  
The ISO shall receive, process and analyze all Interconnection Requests in a timely manner as set forth in this SGIP. The ISO shall use the same reasonable efforts in processing and analyzing Interconnection Requests from all Interconnection Customers, whether the Small Generating Facility is owned or operated by the applicable Participating TO, its subsidiaries or Affiliates, or others.
- 4.7 Record Retention  
The ISO shall maintain for three (3) years records, subject to audit, of all Interconnection Requests received under these procedures, the times required to complete Interconnection Request approvals and disapprovals, and justification for the actions taken on the Interconnection Requests.
- 4.8 Interconnection Agreement  
The Participating TO, with the ISO's review and concurrence, shall issue a SGIA to the Interconnection Customer. After receiving an interconnection agreement from the Participating TO, the Interconnection Customer shall have thirty (30) Business Days or another mutually agreeable timeframe to sign and return the interconnection agreement, or request that the ISO and Participating TO file an unexecuted interconnection agreement with the Federal Energy Regulatory Commission. If the Interconnection Customer does not sign the interconnection agreement, or ask that it be filed unexecuted by the ISO and Participating TO within thirty (30) Business Days, the Interconnection Request shall be deemed withdrawn. After the

interconnection agreement is signed by the Parties, the interconnection of the Small Generating Facility shall proceed under the provisions of the interconnection agreement.

4.9 Coordination with Affected Systems

The ISO shall 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 these procedures. The ISO will include such Affected System operators in all meetings held with the Interconnection Customer as required by these procedures. The Interconnection Customer will cooperate with the ISO in all matters related to the conduct of studies and the determination of modifications to Affected Systems. A transmission provider, which may be an Affected System, shall cooperate with the ISO in all matters related to the conduct of studies and the determination of modifications to Affected Systems.

4.10 Capacity of the Small Generating Facility

4.10.1 If the Interconnection Request is for an increase in capacity for an existing Small Generating Facility, the Interconnection Request shall be evaluated on the basis of the new total capacity of the Small Generating Facility.

4.10.2 If the Interconnection Request is for a Small Generating Facility that includes multiple energy production devices at a site for which the Interconnection Customer seeks a single Point of Interconnection, the Interconnection Request shall be evaluated on the basis of the aggregate capacity of the multiple devices.

4.10.3 The Interconnection Request shall be evaluated using the maximum rated capacity of the Small Generating Facility.

4.11 Interconnection Handbook Requirements

Interconnection Customer is required to meet the requirements of the applicable Participating TO's Interconnection Handbook. The Interconnection Customer's Interconnection Facilities shall be designed, constructed, operated and maintained in accordance with the Participating TO's Interconnection Handbook. In the event of a conflict between the terms of the SGIP and the terms of the Participating TO's Interconnection Handbook, the terms in the SGIP shall govern.

**Attachment 1**

**[INTENTIONALLY LEFT BLANK]**

**Attachment 2**

**SMALL GENERATOR INTERCONNECTION REQUEST  
(Application Form)**

California Independent System Operator

Designated Contact Person: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone Number: \_\_\_\_\_

Fax: \_\_\_\_\_

E-Mail Address: \_\_\_\_\_

An Interconnection Request is considered complete when it provides all applicable and correct information required below. Per SGIP Section 1.3.5, documentation of Site Control must be submitted with the Interconnection Request.

**Preamble and Instructions**

Request for Deliverability Assessment – Yes \_\_\_ No \_\_\_

An Interconnection Customer seeking to interconnect to the ISO Controlled Grid that desires to have a Deliverability Assessment performed for the Small Generating Facility is required to have its Interconnection Request processed under the Large Generator Interconnection Procedures (LGIP) or ISO Tariff Appendix W, as applicable.

An Interconnection Customer who requests a Federal Energy Regulatory Commission jurisdictional interconnection must submit this Interconnection Request by hand delivery, mail, e-mail, or fax to the ISO.

**Processing Fee or Deposit:**

If the Interconnection Request is submitted under the Fast Track Process, the non-refundable processing fee is \$500.

If the Interconnection Request is submitted under the Study Process, whether a new submission or an Interconnection Request that did not pass the Fast Track Process, the Interconnection Customer shall submit to the ISO a deposit not to exceed \$1,000 towards the cost of the feasibility study.

**Interconnection Customer Information**

Legal Name of the Interconnection Customer (or, if an individual, individual's name)

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

Contact Person: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Facility Location (if different from above): \_\_\_\_\_

Telephone (Day): \_\_\_\_\_ Telephone (Evening): \_\_\_\_\_

Fax: \_\_\_\_\_ E-Mail Address: \_\_\_\_\_

Alternative Contact Information (if different from the Interconnection Customer)

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

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

Address: \_\_\_\_\_

\_\_\_\_\_

Telephone (Day): \_\_\_\_\_ Telephone (Evening): \_\_\_\_\_

Fax: \_\_\_\_\_ E-Mail Address: \_\_\_\_\_

Application is for:

\_\_\_\_\_ New Small Generating Facility

\_\_\_\_\_ Capacity addition to Existing Small Generating Facility

If capacity addition to existing facility, please describe: \_\_\_\_\_

\_\_\_\_\_

Will the Small Generating Facility be used for any of the following?

Net Metering? Yes \_\_\_ No \_\_\_

To Supply Power to the Interconnection Customer? Yes \_\_\_ No \_\_\_

To Supply Power to Others? Yes \_\_\_ No \_\_\_

For installations at locations with existing electric service to which the proposed Small Generating Facility will interconnect, provide:

\_\_\_\_\_

(Local Electric Service Provider\*)

\_\_\_\_\_

(Existing Account Number\*)

[\*To be provided by the Interconnection Customer if the local electric service provider is different from the Participating TO]

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

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

Address: \_\_\_\_\_

\_\_\_\_\_

Telephone (Day): \_\_\_\_\_ Telephone (Evening): \_\_\_\_\_

Fax: \_\_\_\_\_ E-Mail Address: \_\_\_\_\_

Requested Point of Interconnection: \_\_\_\_\_

Interconnection Customer's Requested In-Service Date: \_\_\_\_\_

**Small Generating Facility Information**

Data apply only to the Small Generating Facility, not the Interconnection Facilities.

Energy Source:  Solar  Wind  Hydro  Hydro Type (e.g. Run-of-River): \_\_\_\_\_  
 Diesel  Natural Gas  Fuel Oil  Other (state type) \_\_\_\_\_

Prime Mover:  Fuel Cell  Recip Engine  Gas Turb  Steam Turb  
 Microturbine  PV  Other

Type of Generator:  Synchronous  Induction  Inverter

Generator Nameplate Rating: \_\_\_\_\_ kW (Typical) Generator Nameplate kVAR: \_\_\_\_\_

Interconnection Customer or Customer-Site Load: \_\_\_\_\_ kW (if none, so state)

Typical Reactive Load (if known): \_\_\_\_\_

Maximum Physical Export Capability Requested: \_\_\_\_\_ kW

List components of the Small Generating Facility equipment package that are currently certified:

Equipment Type	Certifying Entity
1. _____	_____
2. _____	_____
3. _____	_____
4. _____	_____
5. _____	_____

Is the prime mover compatible with the certified protective relay package?  Yes  No

Generator (or solar collector)

Manufacturer, Model Name & Number: \_\_\_\_\_

Version Number: \_\_\_\_\_

Nameplate Output Power Rating in kW: (Summer) \_\_\_\_\_ (Winter) \_\_\_\_\_

Nameplate Output Power Rating in kVA: (Summer) \_\_\_\_\_ (Winter) \_\_\_\_\_

Individual Generator Power Factor

Rated Power Factor: Leading: \_\_\_\_\_ Lagging: \_\_\_\_\_

Total Number of Generators in wind farm to be interconnected pursuant to this

Interconnection Request: \_\_\_\_\_ Elevation: \_\_\_\_\_  Single phase  Three phase

Inverter Manufacturer, Model Name & Number (if used): \_\_\_\_\_

List of adjustable set points for the protective equipment or software: \_\_\_\_\_

Note: A completed Power Systems Load Flow data sheet must be supplied with the Interconnection Request.



Small Generating Facility Characteristic Data (for inverter-based machines)

Max design fault contribution current: \_\_\_\_\_ Instantaneous \_\_\_\_\_ or RMS? \_\_\_\_\_

Harmonics Characteristics: \_\_\_\_\_

Start-up requirements: \_\_\_\_\_

Small Generating Facility Characteristic Data (for rotating machines)

RPM Frequency: \_\_\_\_\_

(\*) Neutral Grounding Resistor (If Applicable): \_\_\_\_\_

Synchronous Generators:

Direct Axis Synchronous Reactance,  $X_d$ : \_\_\_\_\_ P.U.

Direct Axis Transient Reactance,  $X'_d$ : \_\_\_\_\_ P.U.

Direct Axis Subtransient Reactance,  $X''_d$ : \_\_\_\_\_ P.U.

Negative Sequence Reactance,  $X_2$ : \_\_\_\_\_ P.U.

Zero Sequence Reactance,  $X_0$ : \_\_\_\_\_ P.U.

KVA Base: \_\_\_\_\_

Field Volts: \_\_\_\_\_

Field Amperes: \_\_\_\_\_

Induction Generators:

Motoring Power (kW): \_\_\_\_\_

$I_2^2t$  or K (Heating Time Constant): \_\_\_\_\_

Rotor Resistance,  $R_r$ : \_\_\_\_\_

Stator Resistance,  $R_s$ : \_\_\_\_\_

Stator Reactance,  $X_s$ : \_\_\_\_\_

Rotor Reactance,  $X_r$ : \_\_\_\_\_

Magnetizing Reactance,  $X_m$ : \_\_\_\_\_

Short Circuit Reactance,  $X_d''$ : \_\_\_\_\_

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 contact the ISO prior to submitting the Interconnection Request to determine if the specified information above is required.

Excitation and Governor System Data for Synchronous Generators Only

Provide appropriate IEEE model block diagram of excitation system, governor system and power system stabilizer (PSS) in accordance with the regional reliability council criteria. A PSS may be determined to be required by applicable studies. A copy of the manufacturer's block diagram may not be substituted.

**Interconnection Facilities Information**

Will a transformer be used between the generator and the point of common coupling? \_\_\_ Yes \_\_\_ No

Will the transformer be provided by the Interconnection Customer? \_\_\_ Yes \_\_\_ No

Transformer Data (If Applicable, for Interconnection Customer-Owned Transformer):

Is the transformer: \_\_\_ single phase \_\_\_ three phase? Size: \_\_\_\_\_ kVA  
Transformer Impedance: \_\_\_\_\_ % on \_\_\_\_\_ kVA Base

If Three Phase:

Transformer Primary: \_\_\_\_\_ Volts \_\_\_\_\_ Delta \_\_\_\_\_ Wye \_\_\_\_\_ Wye Grounded  
Transformer Secondary: \_\_\_\_\_ Volts \_\_\_\_\_ Delta \_\_\_\_\_ Wye \_\_\_\_\_ Wye Grounded  
Transformer Tertiary: \_\_\_\_\_ Volts \_\_\_\_\_ Delta \_\_\_\_\_ Wye \_\_\_\_\_ Wye Grounded

Transformer Fuse Data (If Applicable, for Interconnection Customer-Owned Fuse):

(Attach copy of fuse manufacturer's Minimum Melt and Total Clearing Time-Current Curves)

Manufacturer: \_\_\_\_\_ Type: \_\_\_\_\_ Size: \_\_\_\_\_ Speed: \_\_\_\_\_

Interconnecting Circuit Breaker (if applicable):

Manufacturer: \_\_\_\_\_ Type: \_\_\_\_\_  
Load Rating (Amps): \_\_\_\_\_ Interrupting Rating (Amps): \_\_\_\_\_ Trip Speed (Cycles): \_\_\_\_\_

Interconnection Protective Relays (If Applicable):

If Microprocessor-Controlled:

List of Functions and Adjustable Setpoints for the protective equipment or software:

	Setpoint Function	Minimum	Maximum
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____
5.	_____	_____	_____
6.	_____	_____	_____

If Discrete Components:

(Enclose Copy of any Proposed Time-Overcurrent Coordination Curves)

Manufacturer: \_\_\_\_\_ Type: \_\_\_\_\_ Style/Catalog No.: \_\_\_\_\_ Proposed Setting: \_\_\_\_\_  
Manufacturer: \_\_\_\_\_ Type: \_\_\_\_\_ Style/Catalog No.: \_\_\_\_\_ Proposed Setting: \_\_\_\_\_  
Manufacturer: \_\_\_\_\_ Type: \_\_\_\_\_ Style/Catalog No.: \_\_\_\_\_ Proposed Setting: \_\_\_\_\_  
Manufacturer: \_\_\_\_\_ Type: \_\_\_\_\_ Style/Catalog No.: \_\_\_\_\_ Proposed Setting: \_\_\_\_\_  
Manufacturer: \_\_\_\_\_ Type: \_\_\_\_\_ Style/Catalog No.: \_\_\_\_\_ Proposed Setting: \_\_\_\_\_

Current Transformer Data (If Applicable):

(Enclose Copy of Manufacturer's Excitation and Ratio Correction Curves)

Manufacturer: \_\_\_\_\_  
Type: \_\_\_\_\_ Accuracy Class: \_\_\_\_\_ Proposed Ratio Connection: \_\_\_\_\_

Manufacturer: \_\_\_\_\_  
Type: \_\_\_\_\_ Accuracy Class: \_\_\_\_\_ Proposed Ratio Connection: \_\_\_\_\_

Potential Transformer Data (If Applicable):

Manufacturer: \_\_\_\_\_  
Type: \_\_\_\_\_ Accuracy Class: \_\_\_\_\_ Proposed Ratio Connection: \_\_\_\_\_

Manufacturer: \_\_\_\_\_  
Type: \_\_\_\_\_ Accuracy Class: \_\_\_\_\_ Proposed Ratio Connection: \_\_\_\_\_

**General Information**

Enclose copy of site electrical one-line diagram showing the configuration of all Small Generating Facility equipment, current and potential circuits, and protection and control schemes. This one-line diagram must be signed and stamped by a licensed Professional Engineer if the Small Generator Facility is larger than 50 kW. Is One-Line Diagram Enclosed? \_\_\_Yes \_\_\_No

Enclose copy of any site documentation that indicates the precise physical location of the proposed Small Generating Facility (e.g., USGS topographic map or other diagram or documentation).

Proposed location of protective interface equipment on property (include address if different from the Interconnection Customer's address) \_\_\_\_\_

Enclose copy of any site documentation that describes and details the operation of the protection and control schemes. Is Available Documentation Enclosed? \_\_\_Yes \_\_\_No

Enclose copies of schematic drawings for all protection and control circuits, relay current circuits, relay potential circuits, and alarm/monitoring circuits (if applicable).  
Are Schematic Drawings Enclosed? \_\_\_Yes \_\_\_No

**Applicant Signature**

I hereby certify that, to the best of my knowledge, all the information provided in this Interconnection Request is true and correct.

For Interconnection Customer: \_\_\_\_\_ Date: \_\_\_\_\_

**Attachment 3**

**Certification Codes and Standards**

IEEE1547 Standard for Interconnecting Distributed Resources with Electric Power Systems (including use of IEEE 1547.1 testing protocols to establish conformity)

UL 1741 Inverters, Converters, and Controllers for Use in Independent Power Systems

IEEE Std 929-2000 IEEE Recommended Practice for Utility Interface of Photovoltaic (PV) Systems

NFPA 70 (2002), National Electrical Code

IEEE Std C37.90.1-1989 (R1994), IEEE Standard Surge Withstand Capability (SWC) Tests for Protective Relays and Relay Systems

IEEE Std C37.90.2 (1995), IEEE Standard Withstand Capability of Relay Systems to Radiated Electromagnetic Interference from Transceivers

IEEE Std C37.108-1989 (R2002), IEEE Guide for the Protection of Network Transformers

IEEE Std C57.12.44-2000, IEEE Standard Requirements for Secondary Network Protectors

IEEE Std C62.41.2-2002, IEEE Recommended Practice on Characterization of Surges in Low Voltage (1000V and Less) AC Power Circuits

IEEE Std C62.45-1992 (R2002), IEEE Recommended Practice on Surge Testing for Equipment Connected to Low-Voltage (1000V and Less) AC Power Circuits

ANSI C84.1-1995 Electric Power Systems and Equipment – Voltage Ratings (60 Hertz)

IEEE Std 100-2000, IEEE Standard Dictionary of Electrical and Electronic Terms  
NEMA MG 1-1998, Motors and Small Resources, Revision 3

IEEE Std 519-1992, IEEE Recommended Practices and Requirements for Harmonic Control in Electrical Power Systems

NEMA MG 1-2003 (Rev 2004), Motors and Generators, Revision 1

**Attachment 4**

**Certification of Small Generator Equipment Packages**

- 1.0 Small Generating Facility equipment proposed for use separately or packaged with other equipment in an interconnection system shall be considered certified for interconnected operation if (1) it has been tested in accordance with industry standards for continuous utility interactive operation in compliance with the appropriate codes and standards referenced below by any Nationally Recognized Testing Laboratory (NRTL) recognized by the United States Occupational Safety and Health Administration to test and certify interconnection equipment pursuant to the relevant codes and standards listed in SGIP Attachment 3, (2) it has been labeled and is publicly listed by such NRTL at the time of the interconnection application, and (3) such NRTL makes readily available for verification all test standards and procedures it utilized in performing such equipment certification, and, with consumer approval, the test data itself. The NRTL may make such information available on its website and by encouraging such information to be included in the manufacturer's literature accompanying the equipment.
- 2.0 The Interconnection Customer must verify that the intended use of the equipment falls within the use or uses for which the equipment was tested, labeled, and listed by the NRTL.
- 3.0 Certified equipment shall not require further type-test review, testing, or additional equipment to meet the requirements of this interconnection procedure; however, nothing herein shall preclude the need for an on-site commissioning test by the parties to the interconnection nor follow-up production testing by the NRTL.
- 4.0 If the certified equipment package includes only interface components (switchgear, inverters, or other interface devices), then an Interconnection Customer must show that the generator or other electric source being utilized with the equipment package is compatible with the equipment package and is consistent with the testing and listing specified for this type of interconnection equipment.
- 5.0 Provided the generator or electric source, when combined with the equipment package, is within the range of capabilities for which it was tested by the NRTL, and does not violate the interface components' labeling and listing performed by the NRTL, no further design review, testing or additional equipment on the customer side of the point of common coupling shall be required to meet the requirements of this interconnection procedure.
- 6.0 An equipment package does not include equipment provided by the utility.
- 7.0 Any equipment package approved and listed in a state by that state's regulatory body for interconnected operation in that state prior to the effective date of these small generator interconnection procedures shall be considered certified under these procedures for use in that state.

**Attachment 5**

**Application, Procedures, and Terms and Conditions for Interconnecting  
a Certified Inverter-Based Small Generating Facility No  
Larger than 10 kW ("10 kW Inverter Process")**

- 1.0 The Interconnection Customer ("Customer") completes the Interconnection Request ("Application") and submits it to the Participating TO ("Company").
- 2.0 The Company acknowledges to the Customer receipt of the Application within three Business Days of receipt.
- 3.0 The Company evaluates the Application for completeness and notifies the Customer within ten Business Days of receipt that the Application is or is not complete and, if not, advises what material is missing.
- 4.0 The Company verifies that the Small Generating Facility can be interconnected safely and reliably using the screens contained in the Fast Track Process in the Small Generator Interconnection Procedures (SGIP). The Company has 15 Business Days to complete this process. Unless the Company determines and demonstrates that the Small Generating Facility cannot be interconnected safely and reliably, the Company approves the Application and returns it to the Customer. Note to Customer: Please check with the Company before submitting the Application if disconnection equipment is required.
- 5.0 After installation, the Customer returns the Certificate of Completion to the Company. Prior to parallel operation, the Company may inspect the Small Generating Facility for compliance with standards which may include a witness test, and may schedule appropriate metering replacement, if necessary.
- 6.0 The Company notifies the Customer in writing that interconnection of the Small Generating Facility is authorized. If the witness test is not satisfactory, the Company has the right to disconnect the Small Generating Facility. The Customer has no right to operate in parallel until a witness test has been performed, or previously waived on the Application. The Company is obligated to complete this witness test within ten Business Days of the receipt of the Certificate of Completion. If the Company does not inspect within ten Business Days or by mutual agreement of the Parties, the witness test is deemed waived.
- 7.0 Contact Information – The Customer must provide the contact information for the legal applicant (i.e., the Interconnection Customer). If another entity is responsible for interfacing with the Company, that contact information must be provided on the Application.
- 8.0 Ownership Information – Enter the legal names of the owner(s) of the Small Generating Facility. Include the percentage ownership (if any) by any utility or public utility holding company, or by any entity owned by either.
- 9.0 UL1741 Listed – This standard ("Inverters, Converters, and Controllers for Use in Independent Power Systems") addresses the electrical interconnection design of various forms of generating equipment. Many manufacturers submit their equipment to a Nationally Recognized Testing Laboratory (NRTL) that verifies compliance with UL1741. This "listing" is then marked on the equipment and supporting documentation.

**Application for Interconnecting a Certified Inverter-Based Small Generating Facility No Larger than 10kW**

This Application is considered complete when it provides all applicable and correct information required below. Additional information to evaluate the Application may be required.

Processing Fee

A non-refundable processing fee of \$100 must accompany this Application.

Interconnection Customer

Name: \_\_\_\_\_  
Contact Person: \_\_\_\_\_  
Address: \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
Telephone (Day): \_\_\_\_\_ (Evening): \_\_\_\_\_  
Fax: \_\_\_\_\_ E-Mail Address: \_\_\_\_\_

Contact (if different from Interconnection Customer)

Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
Telephone (Day): \_\_\_\_\_ (Evening): \_\_\_\_\_  
Fax: \_\_\_\_\_ E-Mail Address: \_\_\_\_\_

Owner of the facility (include % ownership by any electric utility): \_\_\_\_\_

Small Generating Facility Information

Location (if different from above): \_\_\_\_\_  
Electric Service Company: \_\_\_\_\_  
Account Number: \_\_\_\_\_  
Inverter Manufacturer: \_\_\_\_\_ Model \_\_\_\_\_  
Nameplate Rating: \_\_\_\_\_ (kW) \_\_\_\_\_ (kVA) \_\_\_\_\_ (AC Volts) \_\_\_\_\_  
Single Phase \_\_\_\_\_ Three Phase \_\_\_\_\_  
System Design Capacity: \_\_\_\_\_ (kW) \_\_\_\_\_ (kVA) \_\_\_\_\_  
Prime Mover: Photovoltaic Reciprocating Engine Fuel Cell  
Turbine Other \_\_\_\_\_  
Energy Source: Solar Wind Hydro Diesel Natural Gas  
Fuel Oil Other (describe) \_\_\_\_\_  
Is the equipment UL1741 Listed? \_\_\_\_\_ Yes \_\_\_\_\_ No \_\_\_\_\_  
If Yes, attach manufacturer's cut-sheet showing UL1741 listing

Estimated Installation Date: \_\_\_\_\_ Estimated In-Service Date: \_\_\_\_\_

The 10 kW Inverter Process is available only for inverter-based Small Generating Facilities no larger than 10 kW that meet the codes, standards, and certification requirements of Attachments 3 and 4 of the Small Generator Interconnection Procedures (SGIP), or the Participating TO has reviewed the design or tested the proposed Small Generating Facility and is satisfied that it is safe to operate.

List components of the Small Generating Facility equipment package that are currently certified:

	Equipment Type	Certifying Entity
1.	_____	_____
2.	_____	_____
3.	_____	_____
4.	_____	_____
5.	_____	_____

Interconnection Customer Signature

I hereby certify that, to the best of my knowledge, the information provided in this Application is true. I agree to abide by the Terms and Conditions for Interconnecting an Inverter-Based Small Generating Facility No Larger than 10kW and return the Certificate of Completion when the Small Generating Facility has been installed.

Signed: \_\_\_\_\_

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

Contingent Approval to Interconnect the Small Generating Facility

(For Company use only)

Interconnection of the Small Generating Facility is approved contingent upon the Terms and Conditions for Interconnecting an Inverter-Based Small Generating Facility No Larger than 10kW and return of the Certificate of Completion.

Company Signature: \_\_\_\_\_

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

Application ID number: \_\_\_\_\_

Company waives inspection/witness test? Yes\_\_\_ No\_\_\_



**Small Generating Facility Certificate of Completion**

Is the Small Generating Facility owner-installed? Yes \_\_\_\_\_ No \_\_\_\_\_

Interconnection Customer: \_\_\_\_\_

Contact Person: \_\_\_\_\_

Address: \_\_\_\_\_

Location of the Small Generating Facility (if different from above):  
\_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Telephone (Day): \_\_\_\_\_ (Evening): \_\_\_\_\_

Fax: \_\_\_\_\_ E-Mail Address: \_\_\_\_\_

Electrician:

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

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Telephone (Day): \_\_\_\_\_ (Evening): \_\_\_\_\_

Fax: \_\_\_\_\_ E-Mail Address: \_\_\_\_\_

License number: \_\_\_\_\_

Date Approval to Install Facility granted by the Company: \_\_\_\_\_

Application ID number: \_\_\_\_\_

Inspection:

The Small Generating Facility has been installed and inspected in compliance with the local building/electrical code of \_\_\_\_\_

Signed (Local electrical wiring inspector, or attach signed electrical inspection):

\_\_\_\_\_

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

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

As a condition of interconnection, you are required to send/fax a copy of this form along with a copy of the signed electrical permit to (insert Company information below):

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

Company: \_\_\_\_\_

Address: \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ ZIP: \_\_\_\_\_

Fax: \_\_\_\_\_

Approval to Energize the Small Generating Facility (For Company use only)

Energizing the Small Generating Facility is approved contingent upon the Terms and Conditions for Interconnecting an Inverter-Based Small Generating Facility No Larger than 10kW

Company Signature: \_\_\_\_\_

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

**Terms and Conditions for Interconnecting an Inverter-Based  
Small Generating Facility No Larger than 10kW**

**1.0 Construction of the Facility**

The Interconnection Customer (the "Customer") may proceed to construct (including operational testing not to exceed two hours) the Small Generating Facility when the Participating TO (the "Company") approves the Interconnection Request (the "Application") and returns it to the Customer.

**2.0 Interconnection and Operation**

The Customer may operate Small Generating Facility and interconnect with the Company's electric system once all of the following have occurred:

- 2.1 Upon completing construction, the Customer will cause the Small Generating Facility to be inspected or otherwise certified by the appropriate local electrical wiring inspector with jurisdiction, and
- 2.2 The Customer returns the Certificate of Completion to the Company, and
- 2.3 The Company has either:
  - 2.3.1 Completed its inspection of the Small Generating Facility to ensure that all equipment has been appropriately installed and that all electrical connections have been made in accordance with applicable codes. All inspections must be conducted by the Company, at its own expense, within ten Business Days after receipt of the Certificate of Completion and shall take place at a time agreeable to the Parties. The Company shall provide a written statement that the Small Generating Facility has passed inspection or shall notify the Customer of what steps it must take to pass inspection as soon as practicable after the inspection takes place; or
  - 2.3.2 If the Company does not schedule an inspection of the Small Generating Facility within ten business days after receiving the Certificate of Completion, the witness test is deemed waived (unless the Parties agree otherwise); or
  - 2.3.3 The Company waives the right to inspect the Small Generating Facility.
- 2.4 The Company has the right to disconnect the Small Generating Facility in the event of improper installation or failure to return the Certificate of Completion.
- 2.5 Revenue quality metering equipment must be installed and tested in accordance with applicable ANSI standards.

**3.0 Safe Operations and Maintenance**

The Customer shall be fully responsible to operate, maintain, and repair the Small Generating Facility as required to ensure that it complies at all times with the interconnection standards to which it has been certified.

**4.0 Access**

The Company shall have access to the disconnect switch (if the disconnect switch is required) and metering equipment of the Small Generating Facility at all times. The Company shall provide reasonable notice to the Customer when possible prior to using its right of access.

**5.0 Disconnection**

The Company may temporarily disconnect the Small Generating Facility upon the following conditions:

- 5.1 For scheduled outages upon reasonable notice.
- 5.2 For unscheduled outages or emergency conditions.
- 5.3 If the Small Generating Facility does not operate in the manner consistent with these Terms and Conditions.
- 5.4 The Company shall inform the Customer in advance of any scheduled disconnection, or as is reasonable after an unscheduled disconnection.

**6.0 Indemnification**

The Parties shall at all times indemnify, defend, and save the other Party harmless from, any and all damages, losses, claims, including claims and actions relating to injury to or death of any person or damage to property, demand, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties, arising out of or resulting from the other Party's action or inactions of its obligations under this agreement on behalf of the indemnifying Party, except in cases of gross negligence or intentional wrongdoing by the indemnified Party.

**7.0 Insurance**

The Parties each agree to maintain commercially reasonable amounts of insurance.

**8.0 Limitation of Liability**

Each party's liability to the other party for any loss, cost, claim, injury, liability, or expense, including reasonable attorney's fees, relating to or arising from any act or omission in its performance of this Agreement, shall be limited to the amount of direct damage actually incurred. In no event shall either party be liable to the other party for any indirect, incidental, special, consequential, or punitive damages of any kind whatsoever, except as allowed under paragraph 6.0.

**9.0 Termination**

The agreement to operate in parallel may be terminated under the following conditions:

- 9.1 By the Customer  
By providing written notice to the Company.
- 9.2 By the Company  
If the Small Generating Facility fails to operate for any consecutive 12 month period or the Customer fails to remedy a violation of these Terms and Conditions.
- 9.3 Permanent Disconnection  
In the event this Agreement is terminated, the Company shall have the right to disconnect its facilities or direct the Customer to disconnect its Small Generating Facility.
- 9.4 Survival Rights  
This Agreement shall continue in effect after termination to the extent necessary to allow or require either Party to fulfill rights or obligations that arose under the Agreement.

**10.0 Assignment/Transfer of Ownership of the Facility**

This Agreement shall survive the transfer of ownership of the Small Generating Facility to a new owner when the new owner agrees in writing to comply with the terms of this Agreement and so notifies the Company.

**Attachment 6**

**Feasibility Study Agreement**

**THIS AGREEMENT** is made and entered into this \_\_\_\_\_ day of \_\_\_\_\_  
20\_\_\_ by and between \_\_\_\_\_,  
a \_\_\_\_\_ organized and existing under the laws of the State of \_\_\_\_\_,  
("Interconnection Customer,") and  
the California Independent System Operator Corporation, a California nonprofit public benefit corporation  
existing under the laws of the State of California, ("ISO"). Interconnection Customer and ISO each may  
be referred to as a "Party," or collectively as the "Parties."

**RECITALS**

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

**WHEREAS**, Interconnection Customer desires to interconnect the Small Generating Facility with the ISO  
Controlled Grid; and

**WHEREAS**, Interconnection Customer has requested the ISO to conduct or cause to be performed a  
feasibility study to assess the feasibility of interconnecting the proposed Small Generating Facility with the  
ISO Controlled Grid, 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 or the meanings specified in the Master Definitions Supplement, Appendix A of the ISO Tariff.
- 2.0 The Interconnection Customer elects and the ISO shall conduct or cause to be performed an interconnection feasibility study consistent with the standard Small Generator Interconnection Procedures in accordance with the ISO Tariff.
- 3.0 The scope of the feasibility study shall be subject to the assumptions set forth in Attachment A to this Agreement.
- 4.0 The feasibility study shall be based on the technical information provided by the Interconnection Customer in the Interconnection Request, as may be modified as the result of the Scoping Meeting. The ISO reserves the right to request additional technical information from the Interconnection Customer as may reasonably become necessary consistent with Good Utility Practice during the course of the feasibility study and as designated in accordance with the standard Small Generator Interconnection Procedures. If the Interconnection Customer modifies its Interconnection Request, the time to complete the feasibility study may be extended by agreement of the Parties.
- 5.0 In performing the study, the ISO shall rely, to the extent reasonably practicable, on existing studies of recent vintage. The Interconnection Customer shall not be charged for such existing studies; however, the Interconnection Customer shall be responsible for charges associated with any new study or modifications to existing studies that are reasonably necessary to perform the feasibility study.
- 6.0 The feasibility study report shall provide the following analyses for the purpose of identifying any

potential adverse system impacts that would result from the interconnection of the Small Generating Facility as proposed:

- 6.1 Initial identification of any circuit breaker short circuit capability limits exceeded as a result of the interconnection;
  - 6.2 Initial identification of any thermal overload or voltage limit violations resulting from the interconnection;
  - 6.3 Initial review of grounding requirements and electric system protection;
  - 6.4 preliminary identification of financial impacts, if any, on Local Furnishing Bonds; and
  - 6.5 Description and non-bonding estimated cost of facilities required to interconnect the proposed Small Generating Facility and to address the identified short circuit and power flow issues.
- 7.0 The feasibility study shall model the impact of the Small Generating Facility regardless of purpose in order to avoid the further expense and interruption of operation for reexamination of feasibility and impacts if the Interconnection Customer later changes the purpose for which the Small Generating Facility is being installed.
- 8.0 The study shall include the feasibility of any interconnection at a proposed project site where there could be multiple potential Points of Interconnection, as requested by the Interconnection Customer and at the Interconnection Customer's cost.
- 9.0 A deposit of the lesser of 50 percent of good faith estimated feasibility study costs or earnest money of \$1,000 shall be required from the Interconnection Customer.
- 10.0 Once the feasibility study is completed, a feasibility study report shall be prepared and transmitted to the Interconnection Customer. Barring unusual circumstances, the feasibility study must be completed and the feasibility study report transmitted within 30 Business Days of the Interconnection Customer's agreement to conduct a feasibility study.
- 11.0 Any study fees shall be based on the ISO's actual costs and will be invoiced to the Interconnection Customer after the study is completed and delivered and will include a summary of professional time.
- 12.0 The Interconnection Customer must pay any study costs that exceed the deposit without interest within 30 Calendar Days on receipt of the invoice or resolution of any dispute. If the deposit exceeds the invoiced fees, the ISO shall refund such excess within 30 Calendar Days of the invoice without interest.
- 13.0 Miscellaneous.
- 13.1 Dispute Resolution. Any dispute, or assertion of a claim, arising out of or in connection with this Agreement, shall be resolved in accordance with Section 4.2 of the SGIP.
- 13.2 Confidentiality. Confidential Information shall be treated in accordance with Section 4.5 of the SGIP.
- 13.3 Binding Effect. This 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.

- 13.4 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.
- 13.5 Rules of Interpretation. This Agreement, unless a clear contrary intention appears, shall be construed and interpreted as follows: (1) the singular number includes the plural number and vice versa; (2) reference to any person includes such person's successors and assigns but, in the case of a Party, only if such successors and assigns are permitted by this Agreement, and reference to a person in a particular capacity excludes such person in any other capacity or individually; (3) reference to any agreement (including this Feasibility Study Agreement), document, instrument or tariff means such agreement, document, instrument, or tariff as amended or modified and in effect from time to time in accordance with the terms thereof and, if applicable, the terms hereof; (4) reference to any applicable laws and regulations means such applicable laws and regulations as amended, modified, codified, or reenacted, in whole or in part, and in effect from time to time, including, if applicable, rules and regulations promulgated thereunder; (5) unless expressly stated otherwise, reference to any Article, Section, Attachment, or Appendix means such Article or Section of this Agreement or such Attachment or Appendix to this Agreement, or such Section of the SGIP or such Attachment or Appendix to the SGIP, as the case may be; (6) "hereunder", "hereof", "herein", "hereto" and words of similar import shall be deemed references to this Agreement as a whole and not to any particular Section; (7) "including" (and with correlative meaning "include") means including without limiting the generality of any description preceding such term; and (8) relative to the determination of any period of time, "from" means "from and including", "to" means "to but excluding" and "through" means "through and including".
- 13.6 Governing Law, Regulatory Authority, and Rules. The validity, interpretation and enforcement of this Agreement and each of its provisions shall be governed by the laws of the state where the Point of Interconnection is located, without regard to its conflicts of law principles. This Agreement is subject to all Applicable Laws and Regulations. Each Party expressly reserves the right to seek changes in, appeal, or otherwise contest any laws, orders, or regulations of a Governmental Authority.
- 13.7 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.
- 13.8 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 the Interconnection Customer shall not constitute a waiver of the Interconnection Customer's legal rights to obtain an interconnection from the Participating TO or ISO. Any waiver of this Agreement shall, if requested, be provided in writing.

Any waivers at any time by any Party of its rights with respect to any default under this Agreement, or with respect to any other matter arising in connection with this Agreement, shall not constitute or be deemed a waiver with respect to any subsequent default or other matter arising in connection with this Agreement. Any delay, short of the statutory period of limitations, in asserting or enforcing any right under this Agreement shall not constitute or be deemed a waiver of such right.

- 13.9 Headings. The descriptive headings of the various Articles and Sections of this Agreement have been inserted for convenience of reference only and are of no significance in the interpretation or construction of this Agreement.
- 13.10 Multiple Counterparts. This Agreement may be executed in two or more counterparts, each of which is deemed an original but all constitute one and the same instrument.
- 13.11 Amendment. The Parties may by mutual agreement amend this Agreement by a written instrument duly executed by both of the Parties.
- 13.12 Modification by the Parties. The Parties may by mutual agreement amend the Appendices to this Agreement by a written instrument duly executed by both of the Parties. Such amendment shall become effective and a part of this Agreement upon satisfaction of all applicable laws and regulations.
- 13.13 Reservation of Rights. The ISO shall have the right to make a unilateral filing with FERC to modify this Agreement with respect to any rates, terms and conditions, charges, classifications of service, rule or regulation under section 205 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder, and Interconnection Customer shall have the right to make a unilateral filing with FERC to modify this Agreement pursuant to section 206 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder; provided that each Party shall have the right to protest any such filing by another Party and to participate fully in any proceeding before FERC in which such modifications may be considered. Nothing in this Agreement shall limit the rights of the Parties or of FERC under sections 205 or 206 of the Federal Power Act and FERC's rules and regulations thereunder, except to the extent that the Parties otherwise mutually agree as provided herein.
- 13.14 No Partnership. This Agreement shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership between the Parties or to impose any partnership obligation or partnership liability upon any Party. No Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, another Party.
- 13.15 Assignment. This Agreement may be assigned by a Party only with the written consent of the other Party; provided that a Party may assign this Agreement without the consent of the other Party to any Affiliate of the assigning Party with an equal or greater credit rating and with the legal authority and operational ability to satisfy the obligations of the assigning Party under this Agreement; and provided further that the Interconnection Customer shall have the right to assign this Agreement, without the consent of the other Party, for collateral security purposes to aid in providing financing for the Generating Unit, provided that the Interconnection Customer will require any secured party, trustee or mortgagee to notify the other Party of any such assignment. Any financing arrangement entered into by the Interconnection Customer pursuant to this Article will provide that prior to or upon the exercise of the secured party's, trustee's or mortgagee's assignment rights pursuant to said arrangement, the secured creditor, the trustee or mortgagee will notify the other Party of the date and particulars of any such exercise of assignment right(s). Any attempted assignment that violates this Article is void and ineffective. Any assignment under this Agreement shall not relieve a Party of its obligations, nor shall a Party's obligations be enlarged, in whole or in part, by reason thereof. Where required, consent to assignment will not be unreasonably withheld, conditioned or delayed.
- 13.16 Severability. If any provisions or portion of this Agreement shall for any reason be held or adjudged to be invalid or illegal or unenforceable by any court of competent jurisdiction or other Governmental Authority, (1) such portion or provision shall be deemed separate and independent, (2) the Parties shall negotiate in good faith to restore insofar as practicable the benefits to each Party that were affected by such ruling, and (3) the remainder of this Agreement shall remain in full force and effect.



13.17 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 Parties for the performance of such subcontractor.

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 Parties 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 the Transmission Provider Participating TO or the ISO be liable for the actions or inactions of the Interconnection Customer or its subcontractors with respect to obligations of the Interconnection Customer under 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.

The obligations under this article will not be limited in any way by any limitation of subcontractor's insurance.

**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.

**California Independent System Operator Corporation**

Signed \_\_\_\_\_

Name (Printed): \_\_\_\_\_

Title \_\_\_\_\_

**[Insert name of Interconnection Customer]**

Signed \_\_\_\_\_

Name (Printed): \_\_\_\_\_

Title \_\_\_\_\_

**Attachment A to  
Feasibility Study Agreement**

**Assumptions Used in Conducting the Feasibility Study**

The feasibility study will be based upon the information set forth in the Interconnection Request and agreed upon in the Scoping Meeting held on \_\_\_\_\_:

- 1) Designation of Point of Interconnection and configuration to be studied.
  
- 2) Designation of alternative Points of Interconnection and configuration.

1) and 2) are to be completed by the Interconnection Customer. Other assumptions (listed below) are to be provided by the Interconnection Customer and the ISO.

### **System Impact Study Agreement**

**THIS AGREEMENT** is made and entered into this \_\_\_\_ day of \_\_\_\_\_  
20\_\_ by and between \_\_\_\_\_,  
a \_\_\_\_\_ organized and existing under the laws of the State of  
\_\_\_\_\_, ("Interconnection Customer,") and  
the California Independent System Operator Corporation, a California nonprofit public benefit corporation  
existing under the laws of the State of California, ("ISO"). Interconnection Customer and ISO each may  
be referred to as a "Party," or collectively as the "Parties."

### **RECITALS**

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

**WHEREAS**, the Interconnection Customer desires to interconnect the Small Generating Facility with the  
ISO Controlled Grid;

**WHEREAS**, the ISO has completed a feasibility study and provided the results of said study to the  
Interconnection Customer (This recital to be omitted if the Parties have agreed to forego the feasibility  
study.); and

**WHEREAS**, the Interconnection Customer has requested the ISO to conduct or cause to be performed a  
system impact study(s) to assess the impact of interconnecting the Small Generating Facility with the ISO  
Controlled Grid, 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 or the meanings specified in the Master Definitions Supplement, Appendix A  
of the ISO Tariff.
- 2.0 The Interconnection Customer elects and the ISO shall conduct or cause to be performed a  
system impact study(s) consistent with the standard Small Generator Interconnection Procedures  
in accordance with the ISO Tariff.
- 3.0 The scope of a system impact study shall be subject to the assumptions set forth in Attachment A  
to this Agreement.
- 4.0 A system impact study will be based upon the results of the feasibility study and the technical  
information provided by Interconnection Customer in the Interconnection Request. The ISO  
reserves the right to request additional technical information from the Interconnection Customer  
as may reasonably become necessary consistent with Good Utility Practice during the course of  
the system impact study. If the Interconnection Customer modifies its designated Point of  
Interconnection, Interconnection Request, or the technical information provided therein is  
modified, the time to complete the system impact study may be extended.

- 5.0 A system impact study shall consist of a short circuit analysis, a stability analysis, a power flow analysis, voltage drop and flicker studies, protection and set point coordination studies, an assessment of the potential magnitude of financial impacts, if any, on Local Furnishing Bonds and a proposed resolution, and grounding reviews, as necessary. A system impact study shall state the assumptions upon which it is based, state the results of the analyses, and provide the requirement 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. A system impact study shall provide a list of facilities that are required as a result of the Interconnection Request and non-binding good faith estimates of cost responsibility and time to construct.
- 6.0 A Distribution System impact study shall incorporate a distribution load flow study, an analysis of equipment interrupting ratings, protection coordination study, voltage drop and flicker studies, protection and set point coordination studies, grounding reviews, and the impact on electric system operation, as necessary.
- 7.0 Affected Systems may participate in the preparation of a system impact study, with a division of costs among such entities as they may agree. All Affected Systems shall be afforded an opportunity to review and comment upon a system impact study that covers potential adverse system impacts on their electric systems, and the ISO has 20 additional Business Days to complete a system impact study requiring review by Affected Systems.
- 8.0 If the ISO uses a queuing procedure for sorting or prioritizing projects and their associated cost responsibilities for any required Network Upgrades, the system impact study shall consider all generating facilities (and with respect to paragraph 8.3 below, any identified Upgrades associated with such higher queued interconnection) that, on the date the system impact study is commenced –
- 8.1 Are directly interconnected with the ISO Controlled Grid; or
  - 8.2 Are interconnected with Affected Systems and may have an impact on the proposed interconnection; and
  - 8.3 Have a pending higher queued Interconnection Request to interconnect with the ISO Controlled Grid.
- 9.0 A Distribution System impact study, if required, shall be completed and the results transmitted to the Interconnection Customer within 30 Business Days after this Agreement is signed by the Parties. An ISO Controlled Grid system impact study, if required, shall be completed and the results transmitted to the Interconnection Customer within 45 Business Days after this Agreement is signed by the Parties, or in accordance with the ISO queuing procedures.
- 10.0 A deposit of the equivalent of the good faith estimated cost of a Distribution System impact study and one half the good faith estimated cost of an ISO Controlled Grid system impact study shall be required from the Interconnection Customer.
- 11.0 Any study fees shall be based on the ISO actual costs and will be invoiced to the Interconnection Customer after the study is completed and delivered and will include a summary of professional time.
- 12.0 The Interconnection Customer must pay any study costs that exceed the deposit without interest within 30 Calendar Days on receipt of the invoice or resolution of any dispute. If the deposit exceeds the invoiced fees, the ISO shall refund such excess within 30 Calendar Days of the invoice without interest.
- 13.0 Miscellaneous.

- 13.1 Dispute Resolution. Any dispute, or assertion of a claim, arising out of or in connection with this Agreement, shall be resolved in accordance with Section 4.2 of the SGIP.
- 13.2 Confidentiality. Confidential Information shall be treated in accordance with Section 4.5 of the SGIP.
- 13.3 Binding Effect. This 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.
- 13.4 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.
- 13.5 Rules of Interpretation. This Agreement, unless a clear contrary intention appears, shall be construed and interpreted as follows: (1) the singular number includes the plural number and vice versa; (2) reference to any person includes such person's successors and assigns but, in the case of a Party, only if such successors and assigns are permitted by this Agreement, and reference to a person in a particular capacity excludes such person in any other capacity or individually; (3) reference to any agreement (including this System Impact Study Agreement), document, instrument or tariff means such agreement, document, instrument, or tariff as amended or modified and in effect from time to time in accordance with the terms thereof and, if applicable, the terms hereof; (4) reference to any applicable laws and regulations means such applicable laws and regulations as amended, modified, codified, or reenacted, in whole or in part, and in effect from time to time, including, if applicable, rules and regulations promulgated thereunder; (5) unless expressly stated otherwise, reference to any Article, Section, Attachment, or Appendix means such Article or Section of this Agreement or such Attachment or Appendix to this Agreement, or such Section of the SGIP or such Attachment or Appendix to the SGIP, as the case may be; (6) "hereunder", "hereof", "herein", "hereto" and words of similar import shall be deemed references to this Agreement as a whole and not to any particular Section; (7) "including" (and with correlative meaning "include") means including without limiting the generality of any description preceding such term; and (8) relative to the determination of any period of time, "from" means "from and including", "to" means "to but excluding" and "through" means "through and including".
- 13.6 Governing Law, Regulatory Authority, and Rules. The validity, interpretation and enforcement of this Agreement and each of its provisions shall be governed by the laws of the state where the Point of Interconnection is located, without regard to its conflicts of law principles. This Agreement is subject to all Applicable Laws and Regulations. Each Party expressly reserves the right to seek changes in, appeal, or otherwise contest any laws, orders, or regulations of a Governmental Authority.
- 13.7 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.
- 13.8 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 the Interconnection Customer shall not constitute a waiver of the Interconnection Customer's legal rights to obtain an interconnection from the Participating TO or ISO. Any waiver of this Agreement shall, if requested, be provided in writing.

- Any waivers at any time by any Party of its rights with respect to any default under this Agreement, or with respect to any other matter arising in connection with this Agreement, shall not constitute or be deemed a waiver with respect to any subsequent default or other matter arising in connection with this Agreement. Any delay, short of the statutory period of limitations, in asserting or enforcing any right under this Agreement shall not constitute or be deemed a waiver of such right.
- 13.9 Headings. The descriptive headings of the various Articles and Sections of this Agreement have been inserted for convenience of reference only and are of no significance in the interpretation or construction of this Agreement.
- 13.10 Multiple Counterparts. This Agreement may be executed in two or more counterparts, each of which is deemed an original but all constitute one and the same instrument.
- 13.11 Amendment. The Parties may by mutual agreement amend this Agreement by a written instrument duly executed by both of the Parties.
- 13.12 Modification by the Parties. The Parties may by mutual agreement amend the Appendices to this Agreement by a written instrument duly executed by both of the Parties. Such amendment shall become effective and a part of this Agreement upon satisfaction of all applicable laws and regulations.
- 13.13 Reservation of Rights. The ISO shall have the right to make a unilateral filing with FERC to modify this Agreement with respect to any rates, terms and conditions, charges, classifications of service, rule or regulation under section 205 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder, and Interconnection Customer shall have the right to make a unilateral filing with FERC to modify this Agreement pursuant to section 206 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder; provided that each Party shall have the right to protest any such filing by another Party and to participate fully in any proceeding before FERC in which such modifications may be considered. Nothing in this Agreement shall limit the rights of the Parties or of FERC under sections 205 or 206 of the Federal Power Act and FERC's rules and regulations thereunder, except to the extent that the Parties otherwise mutually agree as provided herein.
- 13.14 No Partnership. This Agreement shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership between the Parties or to impose any partnership obligation or partnership liability upon any Party. No Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, another Party.
- 13.15 Assignment. This Agreement may be assigned by a Party only with the written consent of the other Party; provided that a Party may assign this Agreement without the consent of the other Party to any Affiliate of the assigning Party with an equal or greater credit rating and with the legal authority and operational ability to satisfy the obligations of the assigning Party under this Agreement; and provided further that the Interconnection Customer shall have the right to assign this Agreement, without the consent of the other Party, for collateral security purposes to aid in providing financing for the Generating Unit, provided that the Interconnection Customer will require any secured party, trustee or mortgagee to notify the other Party of any such assignment. Any financing arrangement entered into by the Interconnection Customer pursuant to this Article will provide that prior to or upon the exercise of the secured party's, trustee's or mortgagee's assignment rights pursuant to said arrangement, the secured creditor, the trustee or mortgagee will notify the other Party of the date and particulars of any such exercise of assignment right(s). Any attempted assignment that violates this Article is void and ineffective. Any assignment under this Agreement shall not relieve a Party of its obligations, nor shall a Party's obligations be enlarged, in whole or in part, by reason thereof. Where required, consent to assignment will not be unreasonably withheld, conditioned or delayed.

- 13.16 Severability. If any provisions or portion of this Agreement shall for any reason be held or adjudged to be invalid or illegal or unenforceable by any court of competent jurisdiction or other Governmental Authority, (1) such portion or provision shall be deemed separate and independent, (2) the Parties shall negotiate in good faith to restore insofar as practicable the benefits to each Party that were affected by such ruling, and (3) the remainder of this Agreement shall remain in full force and effect.
- 13.17 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 Parties for the performance of such subcontractor.

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 Parties 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 the Transmission Provider Participating TO or the ISO be liable for the actions or inactions of the Interconnection Customer or its subcontractors with respect to obligations of the Interconnection Customer under 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.

The obligations under this article will not be limited in any way by any limitation of subcontractor's insurance.

**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.

**California Independent System Operator Corporation**

Signed \_\_\_\_\_

Name (Printed): \_\_\_\_\_

Title \_\_\_\_\_

**[Insert name of Interconnection Customer]**

Signed \_\_\_\_\_

Name (Printed): \_\_\_\_\_

Title \_\_\_\_\_

**Attachment A to System  
Impact Study Agreement**

**Assumptions Used in Conducting the System Impact Study**

The system impact study shall be based upon the results of the feasibility study, subject to any modifications in accordance with the standard Small Generator Interconnection Procedures, and the following assumptions:

- 1) Designation of Point of Interconnection and configuration to be studied.
  
- 2) Designation of alternative Points of Interconnection and configuration.

1) and 2) are to be completed by the Interconnection Customer. Other assumptions (listed below) are to be provided by the Interconnection Customer and the ISO.



**Attachment 8**

**Facilities Study Agreement**

**THIS AGREEMENT** is made and entered into this \_\_\_\_\_ day of \_\_\_\_\_  
20\_\_\_\_ by and between \_\_\_\_\_,  
a \_\_\_\_\_ organized and existing under the laws of the State of \_\_\_\_\_,  
("Interconnection Customer,") and  
the California Independent System Operator Corporation, a California nonprofit public benefit corporation  
existing under the laws of the State of California, ("ISO"). Interconnection Customer and ISO each may  
be referred to as a "Party," or collectively as the "Parties."

**RECITALS**

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

**WHEREAS**, the Interconnection Customer desires to interconnect the Small Generating Facility with the  
ISO Controlled Grid;

**WHEREAS**, the ISO has completed a system impact study and provided the results of said study to the  
Interconnection Customer; and

**WHEREAS**, the Interconnection Customer has requested the ISO to conduct or cause to be performed a  
facilities study to specify and estimate the cost of the equipment, engineering, procurement and  
construction work needed to implement the conclusions of the system impact study in accordance with  
Good Utility Practice to physically and electrically connect the Small Generating Facility with the ISO  
Controlled Grid.

**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 or the meanings specified in the Master Definitions Supplement, Appendix A of the ISO Tariff.
- 2.0 The Interconnection Customer elects and the ISO shall cause a facilities study consistent with the standard Small Generator Interconnection Procedures to be performed in accordance with the ISO Tariff.
- 3.0 The scope of the facilities study shall be subject to data provided in Attachment A to this Agreement.
- 4.0 The facilities study shall specify and estimate the cost, including, if applicable, the cost of remedial measures that address the financial impacts, if any, on Local Furnishing Bonds, of the equipment, engineering, procurement and construction work (including overheads) needed to implement the conclusions of the system impact study(s). The facilities study shall also identify (1) the electrical switching configuration of the equipment, including, without limitation, transformer, switchgear, meters, and other station equipment, (2) the nature and estimated cost of the Participating TO's Interconnection Facilities and Upgrades necessary to accomplish the interconnection, and (3) an estimate of the time required to complete the construction and installation of such facilities or for effecting remedial measures that address the financial impacts, if any, on Local Furnishing Bonds.

- 5.0 The ISO may propose to group facilities required for more than one Interconnection Customer in order to minimize facilities costs through economies of scale, but any Interconnection Customer may require the installation of facilities required for its own Small Generating Facility if it is willing to pay the costs of those facilities.
- 6.0 A deposit of the good faith estimated facilities study costs shall be required from the Interconnection Customer.
- 7.0 In cases where Upgrades are required, the facilities study must be completed within 45 Business Days of the receipt of this Agreement. In cases where no Upgrades are necessary, and the required facilities are limited to Interconnection Facilities, the facilities study must be completed within 30 Business Days.
- 8.0 Once the facilities study is completed, a facilities study report shall be prepared and transmitted to the Interconnection Customer. Barring unusual circumstances, the facilities study must be completed and the facilities study report transmitted within 30 Business Days of the Interconnection Customer's agreement to conduct a facilities study.
- 9.0 Any study fees shall be based on the ISO's actual costs and will be invoiced to the Interconnection Customer after the study is completed and delivered and will include a summary of professional time.
- 10.0 The Interconnection Customer must pay any study costs that exceed the deposit without interest within 30 Calendar Days on receipt of the invoice or resolution of any dispute. If the deposit exceeds the invoiced fees, the ISO shall refund such excess within 30 Calendar Days of the invoice without interest.
- 11.0 Miscellaneous.
- 11.1 Dispute Resolution. Any dispute, or assertion of a claim, arising out of or in connection with this Agreement, shall be resolved in accordance with Section 4.2 of the SGIP.
- 11.2 Confidentiality. Confidential Information shall be treated in accordance with Section 4.5 of the SGIP.
- 11.3 Binding Effect. This 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.
- 11.4 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.
- 11.5 Rules of Interpretation. This Agreement, unless a clear contrary intention appears, shall be construed and interpreted as follows: (1) the singular number includes the plural number and vice versa; (2) reference to any person includes such person's successors and assigns but, in the case of a Party, only if such successors and assigns are permitted by this Agreement, and reference to a person in a particular capacity excludes such person in any other capacity or individually; (3) reference to any agreement (including this Facilities Study Agreement), document, instrument or tariff means such agreement, document, instrument, or tariff as amended or modified and in effect from time to time in accordance with the terms thereof and, if applicable, the terms hereof; (4) reference to any applicable laws and regulations means such applicable laws and regulations as amended, modified, codified, or reenacted, in whole or in part, and in effect from time to time, including, if applicable, rules and regulations promulgated thereunder; (5) unless expressly stated otherwise, reference to any Article, Section, Attachment, or Appendix means such Article or Section of this Agreement or such Attachment or Appendix to

this Agreement, or such Section of the SGIP or such Attachment or Appendix to the SGIP, as the case may be; (6) "hereunder", "hereof", "herein", "hereto" and words of similar import shall be deemed references to this Agreement as a whole and not to any particular Section; (7) "including" (and with correlative meaning "include") means including without limiting the generality of any description preceding such term; and (8) relative to the determination of any period of time, "from" means "from and including", "to" means "to but excluding" and "through" means "through and including".

- 11.6 Governing Law, Regulatory Authority, and Rules. The validity, interpretation and enforcement of this Agreement and each of its provisions shall be governed by the laws of the state where the Point of Interconnection is located, without regard to its conflicts of law principles. This Agreement is subject to all Applicable Laws and Regulations. Each Party expressly reserves the right to seek changes in, appeal, or otherwise contest any laws, orders, or regulations of a Governmental Authority.
- 11.7 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.
- 11.8 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 the Interconnection Customer shall not constitute a waiver of the Interconnection Customer's legal rights to obtain an interconnection from the Participating TO or ISO. Any waiver of this Agreement shall, if requested, be provided in writing.

Any waivers at any time by any Party of its rights with respect to any default under this Agreement, or with respect to any other matter arising in connection with this Agreement, shall not constitute or be deemed a waiver with respect to any subsequent default or other matter arising in connection with this Agreement. Any delay, short of the statutory period of limitations, in asserting or enforcing any right under this Agreement shall not constitute or be deemed a waiver of such right.

- 11.9 Headings. The descriptive headings of the various Articles and Sections of this Agreement have been inserted for convenience of reference only and are of no significance in the interpretation or construction of this Agreement.
- 11.10 Multiple Counterparts. This Agreement may be executed in two or more counterparts, each of which is deemed an original but all constitute one and the same instrument.
- 11.11 Amendment. The Parties may by mutual agreement amend this Agreement by a written instrument duly executed by both of the Parties.
- 11.12 Modification by the Parties. The Parties may by mutual agreement amend the Appendices to this Agreement by a written instrument duly executed by both of the Parties. Such amendment shall become effective and a part of this Agreement upon satisfaction of all applicable laws and regulations.
- 11.13 Reservation of Rights. The ISO shall have the right to make a unilateral filing with FERC to modify this Agreement with respect to any rates, terms and conditions, charges, classifications of service, rule or regulation under section 205 or any other applicable provision of the Federal

Power Act and FERC's rules and regulations thereunder, and Interconnection Customer shall have the right to make a unilateral filing with FERC to modify this Agreement pursuant to section 206 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder; provided that each Party shall have the right to protest any such filing by another Party and to participate fully in any proceeding before FERC in which such modifications may be considered. Nothing in this Agreement shall limit the rights of the Parties or of FERC under sections 205 or 206 of the Federal Power Act and FERC's rules and regulations thereunder, except to the extent that the Parties otherwise mutually agree as provided herein.

- 11.14 No Partnership. This Agreement shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership between the Parties or to impose any partnership obligation or partnership liability upon any Party. No Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, another Party.
- 11.15 Assignment. This Agreement may be assigned by a Party only with the written consent of the other Party; provided that a Party may assign this Agreement without the consent of the other Party to any Affiliate of the assigning Party with an equal or greater credit rating and with the legal authority and operational ability to satisfy the obligations of the assigning Party under this Agreement; and provided further that the Interconnection Customer shall have the right to assign this Agreement, without the consent of the other Party, for collateral security purposes to aid in providing financing for the Generating Unit, provided that the Interconnection Customer will require any secured party, trustee or mortgagee to notify the other Party of any such assignment. Any financing arrangement entered into by the Interconnection Customer pursuant to this Article will provide that prior to or upon the exercise of the secured party's, trustee's or mortgagee's assignment rights pursuant to said arrangement, the secured creditor, the trustee or mortgagee will notify the other Party of the date and particulars of any such exercise of assignment right(s). Any attempted assignment that violates this Article is void and ineffective. Any assignment under this Agreement shall not relieve a Party of its obligations, nor shall a Party's obligations be enlarged, in whole or in part, by reason thereof. Where required, consent to assignment will not be unreasonably withheld, conditioned or delayed.
- 11.16 Severability. If any provisions or portion of this Agreement shall for any reason be held or adjudged to be invalid or illegal or unenforceable by any court of competent jurisdiction or other Governmental Authority, (1) such portion or provision shall be deemed separate and independent, (2) the Parties shall negotiate in good faith to restore insofar as practicable the benefits to each Party that were affected by such ruling, and (3) the remainder of this Agreement shall remain in full force and effect.
- 11.17 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 Parties for the performance of such subcontractor.

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 Parties 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 the Transmission Provider Participating TO or the ISO be liable for the actions or inactions of the Interconnection Customer or its subcontractors with respect to obligations of the Interconnection Customer under 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.

The obligations under this article will not be limited in any way by any limitation of subcontractor's insurance.

**California Independent System Operator Corporation**

Signed \_\_\_\_\_

Name (Printed): \_\_\_\_\_

Title \_\_\_\_\_

**[Insert name of Interconnection Customer]**

Signed \_\_\_\_\_

Name (Printed): \_\_\_\_\_

Title \_\_\_\_\_

**Attachment A to  
Facilities Study Agreement**

**Data to Be Provided by the Interconnection Customer  
with the 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.

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

One set of metering is required for each generation connection to the new ring bus or existing Participating TO station. Number of generation connections: \_\_\_\_\_

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 the one-line diagram).

What type of control system or PLC will be located at the Small Generating Facility?

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What protocol does the control system or PLC use?

---

---

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

Physical dimensions of the proposed interconnection station:

---

Bus length from generation to interconnection station:

---

Line length from interconnection station to ISO Controlled Grid.

---

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

---

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

---

\* To be completed in coordination with Participating TO.

Is the Small Generating Facility located in Participating TO's service area?

Yes \_\_\_\_\_ No \_\_\_\_\_ If No, please provide name of local provider:

---

Please provide the following proposed schedule dates:

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

Generator step-up transformers receive back feed power Date: \_\_\_\_\_

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

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

**Attachment 9**

**INTERCONNECTION PROCEDURES FOR A WIND GENERATING PLANT**

Attachment 9 sets forth procedures specific to a wind generating plant. All other requirements of this SGIP continue to apply to wind generating plant interconnections.

**A. Special Procedures Applicable to Wind Generators**

The wind plant Interconnection Customer, in completing the Interconnection Request required by Section 2.3 of this SGIP, may provide to the ISO a set of preliminary electrical design specifications depicting the wind plant as a single equivalent generator. Upon satisfying these and other applicable Interconnection Request conditions, the wind plant may enter the queue and receive the Base Case data as provided for in this SGIP.

No later than six months after submitting an Interconnection Request completed in this manner, the wind plant Interconnection Customer must submit completed detailed electrical design specifications and other data (including collector system layout data) needed to allow the ISO to complete the interconnection study.