



Control Number: 35077



Item Number: 470

Addendum StartPage: 0



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August 13, 2014

Ms. Naomi Hudgins, Filing Clerk  
Public Utility Commission of Texas  
1701 Congress Avenue  
P.O. Box 13326  
Austin, TX 78711-3326

**Re: Docket No. 35077 — First Amended and Restated ERCOT Standard  
Generation Interconnection Agreement between AEP Texas North Company  
and Barilla Solar, LLC Filing Pursuant to Substantive Rule 25.195(e)**

Dear Ms. Hudgins:

Enclosed for filing are four (4) copies of the First Amended and Restated ERCOT Standard Generation Interconnection Agreement, dated July 23, 2014, between AEP Texas North Company and Barilla Solar, LLC (the "Agreement"). AEP Texas North Company is subject to the jurisdiction of the Federal Energy Regulatory Commission ("FERC") with respect to transmission rates and service, including generation interconnection. This Agreement has been filed for acceptance with FERC. AEP Texas North Company is also filing this Agreement with the PUCT for informational purposes. Because the Agreement contains deviations from the Commission-approved Standard Generation Interconnection Agreement (2007 version published by ERCOT) ("SGIA"), AEP Texas North Company has prepared this letter in accordance with Substantive Rule 25.195(e) identifying the deviations and requests that it be filed with the Agreement.

AEP Texas North Company and Barilla Solar, LLC originally entered into an ERCOT Standard Generation Interconnection Agreement as of December 26, 2013 (the "Original Agreement"). In the Original Agreement, at Generator's request AEP Texas North Company agreed to raise the height of structures and conductors on existing AEP Texas North Company transmission lines to provide increased ground clearance to permit Generator to construct its 138 kV transmission line to the Point of Interconnection based upon Generator's agreement to pay AEP Texas North Company's costs of installing the increased ground clearance as a contribution in aid of construction ("CIAC").

Subsequent to the Original Agreement, AEP Texas North Company and Barilla Solar, LLC have agreed to amend and restate the Original Agreement to identify a phased build out of Barilla Solar, LLC's plant capacity as specified in Exhibit "C", Section 4 of the

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Agreement. No changes to financial security or CIAC are required related to the Agreement.

The following changes reflect the effects of both the Original Agreement and the Agreement:

- The following exhibits have been added to the list of exhibits in the Table of Contents:

*Exhibit "C-1" – Conceptual One-Line Drawing of Point of Interconnection*

- Additional changes, unrelated to the installation of the increased ground clearance, have also been made to the Agreement, as described below. The following exhibits have been added to the list of exhibits in the Table of Contents:

*Exhibit "E-1" – Form of Corporate Guaranty*

*Exhibit "E-2" – Form of Irrevocable Standby Letter of Credit*

- The following changes have been made to Paragraph E of the Agreement:

*E. The Interconnection Details attached hereto as Exhibits "C" and "C-1";*

- References to the PUCT Rule in the following definition in Section 1.3 of Article 1. Definitions of the Agreement have been revised:

*1.3 "Control Area" shall have the meaning ascribed thereto in PUCT Rule 25.5 or its successor.*

- The first sentence of the "ERCOT Requirements" definition in Section 1.5 of Article 1. Definitions of the Agreement has been revised as follows:

*1.5 "ERCOT Requirements" means the ERCOT Nodal Operating Guides, ERCOT Metering Guidelines, ERCOT Generation Interconnection Procedures, ERCOT Nodal Protocols as well as any other documents adopted by ERCOT relating to the interconnection and operation of generators and transmission systems in ERCOT as amended from time to time, and any successors thereto.*

- References to the PUCT Rule in the following definition in Section 1.6 of Article 1. Definitions of the Agreement have been revised:

*1.6 "Facilities Study" shall have the meaning as described in PUCT Rule 25.198(d) or its successor.*

- A new definition of the Federal Energy Regulatory Commission has been added as Section 1.8 of Article 1. Definitions of the Agreement:

*1.8 “FERC” shall mean the Federal Energy Regulatory Commission.*

- References to the PUCT Rule in the following definition in Section 1.10 of Article 1. Definitions of the Agreement have been revised:

*1.10 “Good Utility Practice” shall have the meaning described in PUCT Rule 25.5 or its successor.*

- References to the PUCT Rule in the following definition in Section 1.18 of Article 1. Definitions of the Agreement have been revised:

*1.18 “Reasonable Efforts” shall mean the use of Good Utility Practice and the exercise of due diligence (pursuant to PUCT Rule 25.198(e) or its successor).*

- References to the PUCT Rule in the following definition in Section 1.20 of Article 1. Definitions of the Agreement have been revised:

*1.20 “System Security Study” shall have the meaning as described in PUCT Rule 25.198(c) or its successor.*

- The first two sentences of Section 3.1 of Article 3. Regulatory Filings has been revised as follows:

*The TSP shall file this executed Agreement with FERC, and provide a copy of this Agreement to the PUCT. Each Party will reasonably cooperate with each other in connection with such filings.*

- Section 4.5 of Article 4. Interconnection Facilities Engineering, Procurement, and Construction has been revised as follows:

*To the extent this Agreement incorporates a specified In-Service Date and the Generator fails to satisfy conditions precedent under Sections 4.2 and 4.3 so that the TSP may meet the In-Service Date, the Parties will negotiate in good faith to establish a new schedule for completion of the TIF, and the In-Service Date shall be extended accordingly.*

- The last sentence of Section 5.2 of Article 5. Facilities and Equipment has been revised as follows:

*Within one hundred and twenty (120) days after Commercial Operation . . . the Generator shall deliver to the TSP the following “as-built” drawings, information and documents for the GIF: . . . the facilities connecting the*

*Plant to the main power transformers and the GIF, and the impedances (determined by factory tests) for the associated main power transformers and the generators and the impedance of any transmission voltage lines that are part of the GIF.*

- Paragraph B. of Section 5.5 of Article 5. Facilities and Equipment has been revised as follows:

*B. The metering and telemetry equipment shall be owned by the TSP. However, the TSP shall provide the Generator with metering and telemetry values in accordance with ERCOT Requirements.*

- Paragraph E. of Section 5.5 of Article 5. Facilities and Equipment has been revised as follows:

*E. Prior to the connection of the GIF to the TIF, acceptance tests will be performed by the owning Party . . . to verify the accuracy of data being received by the TSP, ERCOT and the Generator. . .*

- The following new sentence has been added to Section 6.1 of Article 6. Operation and Maintenance:

*In addition, Generator agrees to operate and maintain its system in accordance with the National Electric Code.*

- The last sentence of Section 6.1 of Article 6. Operation and Maintenance has been revised as follows:

*All testing of the Plant that affects the operation of the Point of Interconnection shall be coordinated between the TSP, ERCOT, and Generator and will be conducted in accordance with ERCOT Requirements.*

- Section 6.2 of Article 6. Operation and Maintenance has been deleted and replaced with the following:

*6.2 Control Area. The Control Area within ERCOT is a single Control Area with ERCOT assuming authority as the Control Area operator in accordance with ERCOT Requirements.*

- The reference to “ISO” in Section 7.3 of Article 7. Data Requirements has been replaced with “ERCOT”.
- The following new sentence has been added as Section 8.1.B of Article 8. Performance Obligation:

*In addition, the Generator will be required to make a contribution in aid of construction as set forth in Section 8 of Exhibit "C".*

- The second and third sentences of Section 8.3 of Article 8. Performance Obligation have been revised as follows:

*The required security arrangements are specified in Exhibit "E". Within five (5) business days after TSP has received notice from the Generator that the Plant has achieved Commercial Operation and TSP has verified the same, the TSP shall return the deposit(s) or security to the Generator.*

- The last two sentences of Paragraph E. of Section 9.1 of Article 9. Insurance has been revised as follows:

*All policies shall contain provisions whereby the insurers waive all rights of subrogation in accordance with the provisions of this Agreement against the Other Party Group. Each Party shall provide thirty (30) days advance written notice to Other Party Group prior to cancellation or any material change in coverage or condition.*

- The first sentence of Paragraph F. of Section 9.1 of Article 9. Insurance has been revised as follows:

*The Commercial General Liability Insurance, Comprehensive Automobile Liability Insurance and Excess Public Liability Insurance policies shall contain provisions that specify that the policies are primary and non-contributory for any liability arising out of that Party's negligence, and shall apply to such extent without consideration for other policies separately carried and shall state that each insured is provided coverage as though a separate policy had been issued to each, except the insurer's liability shall not be increased beyond the amount for which the insurer would have been liable had only one insured been covered.*

- The last sentence of Section 10.6.A of Article 10. Miscellaneous has been revised as follows:

*Except as provided in Section 10.6.B, the defaulting Party shall have thirty (30) days from receipt of the Default notice within which to cure such Default; provided however, if such Default is not capable of cure within thirty (30) days, the defaulting Party shall commence such cure within thirty (30) days after Default notice and continuously and diligently complete such cure within ninety (90) days from receipt of the Default notice; and, if cured within such time, the Default specified in such Default notice shall cease to exist.*

- The first sentence of Section 10.17 of Article 10. Miscellaneous has been revised as follows:

*This Agreement may be assigned by either Party only with the written consent of the other Party; provided that either 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 Generator shall have the right to assign this Agreement, without the consent of the TSP, for collateral security purposes to aid in providing financing for the Plant, provided that the Generator will require any secured party, trustee or mortgagee to notify the TSP of any such assignment.*

Questions concerning this filing should be directed to me at 918-599-2723, [rlpennybaker@aep.com](mailto:rlpennybaker@aep.com).

Respectfully submitted,

Robert L. Pennybaker

Robert L. Pennybaker

Director – Transmission and Interconnection Services  
American Electric Power Service Corporation

**FIRST AMENDED AND RESTATED  
ERCOT STANDARD GENERATION  
INTERCONNECTION AGREEMENT**

**BETWEEN**

**AEP TEXAS NORTH COMPANY**

**AND**

**BARILLA SOLAR, LLC**

**Dated:** JULY 23, 2014



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**First Amended and Restated  
ERCOT Standard Generation  
Interconnection Agreement  
Between  
AEP Texas North Company  
And  
Barilla Solar, LLC**

This First Amended and Restated ERCOT Standard Generation Interconnection Agreement is made and entered into as of the 23<sup>rd</sup> day of JULY, 2014 (the "Execution Date") between AEP Texas North Company ("Transmission Service Provider") and Barilla Solar, LLC ("Generator"), hereinafter individually referred to as "Party" and collectively referred to as "Parties." In consideration of the mutual covenants and agreements herein contained, the Parties hereto agree as follows:

Transmission Service Provider represents that it is a public utility that owns and operates facilities for the transmission and distribution of electricity. Generator represents that it will own and operate the Plant. Pursuant to the terms and conditions of this Agreement, Transmission Service Provider shall interconnect Generator's Plant with Transmission Service Provider's System consistent with the results of the Facilities Study that was prepared in response to generation interconnection request #12INR0059 to ERCOT from BNB Renewable Energy Holdings LLC.

The Parties originally entered into an ERCOT Standard Generation Interconnection Agreement as of December 26, 2013 (the "Original Agreement"). The Parties agree to amend and restate the Original Agreement as set forth herein for the purpose of identifying a phased build out of the Plant capacity specified in Section 4 of Exhibit "C" attached hereto.

This Agreement applies only to the Plant and the Parties' interconnection facilities as identified in Exhibit "C".

This Agreement shall become effective on the Execution Date or upon such other date specified by FERC, subject to Governmental Authority approval, if required, and shall continue in full force and effect until terminated in accordance with Exhibit "A".

This Agreement will be subject to the following, all of which are incorporated herein:

- A. The "Terms and Conditions of the ERCOT Standard Generation Interconnection Agreement" attached hereto as Exhibit "A";
- B. The ERCOT Requirements (unless expressly stated herein, where the ERCOT Requirements are in conflict with this Agreement, the ERCOT Requirements shall prevail);
- C. The PUCT Rules (where the PUCT Rules are in conflict with this Agreement, the PUCT Rules shall prevail);

- D. The Time Schedule attached hereto as Exhibit "B";
- E. The Interconnection Details attached hereto as Exhibits "C" and "C-1";
- F. The notice requirements attached hereto as Exhibit "D"; and
- G. The Security Arrangement Details attached hereto as Exhibit "E".

**[The remainder of this page is intentionally left blank.  
The next page of this document is 4.]**

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

**AEP Texas North Company**

**Barilla Solar, LLC**

*JWS*  
By: 

By: 



Name: Scott N. Smith

Name: Richard A. Lammers

Title: Vice President

Title: Vice President - Asset Management

Date: 7/23/14

Date: July 15, 2014

## EXHIBIT "A"

### TERMS AND CONDITIONS OF THE ERCOT STANDARD GENERATION INTERCONNECTION AGREEMENT

#### ARTICLE 1. DEFINITIONS

Capitalized terms shall have the meanings as set forth below, except as otherwise specified in the Agreement:

- 1.1 "CCN" shall mean a Certificate of Convenience and Necessity issued by the PUCT.
- 1.2 "Commercial Operation" shall mean the date on which Generator declares that the construction of the Plant has been substantially completed, Trial Operation of the Plant has been completed, and the Plant is ready for dispatch.
- 1.3 "Control Area" shall have the meaning ascribed thereto in PUCT Rule 25.5 or its successor.
- 1.4 "ERCOT" shall mean the Electric Reliability Council of Texas, Inc.
- 1.5 "ERCOT Requirements" means the ERCOT Nodal Operating Guides, ERCOT Metering Guidelines, ERCOT Generation Interconnection Procedures, ERCOT Nodal Protocols as well as any other documents adopted by ERCOT relating to the interconnection and operation of generators and transmission systems in ERCOT as amended from time to time, and any successors thereto. Any requirement in the foregoing documents imposed upon generation entities or generation facilities shall become the responsibility of the Generator, and any requirements imposed on transmission providers or transmission facilities shall become the responsibility of the TSP.
- 1.6 "Facilities Study" shall have the meaning as described in PUCT Rule 25.198(d) or its successor.
- 1.7 "Facilities Study Agreement" shall mean the agreement executed by the Parties relating to the performance of the Facilities Study.
- 1.8 "FERC" shall mean the Federal Energy Regulatory Commission.
- 1.9 "GIF" shall mean Generator's interconnection facilities as described in Exhibit "C".
- 1.10 "Good Utility Practice" shall have the meaning described in PUCT Rule 25.5 or its successor.

- 1.11 “Governmental Authority(ies)” shall mean any federal, state, local or municipal body having jurisdiction over a Party.
- 1.12 “In-Service Date” shall be the date, as reflected in Exhibit “B”, that the TIF will be ready to connect to the GIF.
- 1.13 “ISO” shall mean the ERCOT Independent System Operator.
- 1.14 “Plant” shall mean the electric generation facility owned and operated by the Generator, as specified in Exhibit “C”.
- 1.15 “Point of Interconnection” shall mean the location(s) where the GIF connects to the TIF as negotiated and defined by the Parties and as shown on Exhibit “C” of this Agreement.
- 1.16 “PUCT” shall mean the Public Utility Commission of Texas.
- 1.17 “PUCT Rules” shall mean the Substantive Rules of the PUCT.
- 1.18 “Reasonable Efforts” shall mean the use of Good Utility Practice and the exercise of due diligence (pursuant to PUCT Rule 25.198(e) or its successor).
- 1.19 “System Protection Equipment” shall mean those facilities located within the TIF and the GIF as described in Section 5.6 and Exhibit “C”.
- 1.20 “System Security Study” shall have the meaning as described in PUCT Rule 25.198(c) or its successor.
- 1.21 “TCOS” shall mean the TSP’s transmission cost of service as allowed by the applicable Governmental Authority.
- 1.22 “TIF” shall mean the TSP’s interconnection facilities as described in Exhibit “C” to this Agreement.
- 1.23 “Trial Operation” shall mean the process by which the Generator is engaged in on-site test operations and commissioning of the Plant prior to Commercial Operation.
- 1.24 “TSP” shall mean the Transmission Service Provider.
- 1.25 “TSP System” shall mean the electric transmission facilities, including the TIF and all associated equipment and facilities owned and/or operated by the TSP.

## ARTICLE 2. TERMINATION

2.1 Termination Procedures. This Agreement may be terminated as follows:

- A. the Generator may terminate this Agreement after giving the TSP thirty (30) days advance written notice; or
- B. the TSP may terminate this Agreement (subject to Governmental Authority approval, if required) on written notice to the Generator if the Generator's Plant has not achieved Commercial Operation within one (1) year after the scheduled Commercial Operation date reflected in Exhibit "B"; or
- C. either Party may terminate this Agreement in accordance with Section 10.6.

2.2 Termination Costs. If a Party elects to terminate the Agreement pursuant to Section 2.1 above, the Generator shall pay all costs incurred (or committed to be incurred) by TSP, as of the date of the other Party's receipt of such notice of termination, that are the responsibility of the Generator under this Agreement. In the event of termination by either Party, both Parties shall use commercially reasonable efforts to mitigate the damages and charges that they may incur as a consequence of termination. The provisions of the Sections 2.2 and 2.3 shall survive termination of the Agreement.

2.3 Disconnection. Upon termination of this Agreement, the Parties will disconnect the GIF from the TIF.

## ARTICLE 3. REGULATORY FILINGS

3.1 Filing. The TSP shall file this executed Agreement with FERC, and provide a copy of this Agreement to the PUCT. Each Party will reasonably cooperate with each other in connection with such filings. Any portions of this Agreement asserted by Generator to contain competitively sensitive commercial or financial information shall be filed by the TSP identified as "confidential" under seal stating, for the TSP's showing of good cause that Generator asserts such information is confidential information and has requested such filing under seal. If requested by the TSP, Generator shall provide the TSP, in writing, with the Generator's basis for asserting that the information referred to in this Section 3.1 is competitively sensitive information, and the TSP may disclose such writing to the appropriate Governmental Authority.

3.2 Regulatory Approvals. Unless exempt, the TSP shall timely request ISO and all regulatory approvals necessary for it to carry out its responsibilities under this Agreement. Such approvals shall include any CCN required for the construction of the TIF.

#### **ARTICLE 4. INTERCONNECTION FACILITIES ENGINEERING, PROCUREMENT, AND CONSTRUCTION**

4.1 Options. The Generator shall select one (1) of the following options (subsection A or subsection B) and include the selected option in Exhibit "B" for completion of the TIF:

A. The TSP shall design, procure, and construct the TIF, using Reasonable Efforts to complete the TIF by the In-Service Date reflected in Exhibit "B". The TSP will utilize its own resources and will contract for additional resources, as reasonably necessary, to meet the In-Service Date. Such resources shall include, as the TSP believes is reasonable, use of other contractors, other equipment suppliers, other material suppliers, additional contract personnel, additional payments to contractors for expedited work, and premiums paid to equipment and material suppliers for expedited delivery. The TSP shall not be required to undertake any initiative, which is inconsistent with its standard safety practices, its material and equipment specifications, its design criteria and construction procedures, its labor agreements, applicable laws and regulations, and ERCOT Requirements. In the event the TSP reasonably expects that it will not be able to complete the TIF by the In-Service Date, the TSP will promptly provide written notice to the Generator and will undertake Reasonable Efforts to meet the earliest date thereafter.

B. (i) The TSP shall design, procure, and construct the TIF by the In-Service Date reflected in Exhibit "B". The Parties acknowledge that the In-Service Date was either agreed upon through good faith negotiations or designated by the Generator upon failure of the Parties to agree. In the process of negotiating the In-Service Date, Generator will request a date upon which it reasonably expects it will be ready to begin use of the TIF and upon which it reasonably expects to begin doing so. Any date designated by the Generator shall in no event be less than fifteen (15) months from the date that all conditions of Sections 4.2 and 4.3 have been satisfied. The designated In-Service Date will be extended day for day for each day that the ISO refuses to grant clearances to install equipment. If the TSP fails to complete the TIF by the In-Service Date reflected in Exhibit "B", the TSP shall pay the Generator liquidated damages in accordance with this Section 4.1.B.

(ii) The Parties agree that actual damages to the Generator, in the event the TIF are not completed by the In-Service Date, may include Generator's fixed operation and maintenance costs and lost opportunity costs. Such actual damages are uncertain and impossible to determine at this time. The Parties agree that, because of such uncertainty, any liquidated damages paid by the TSP to the Generator shall be an amount equal to  $\frac{1}{2}$  of 1% of the actual cost of the TIF, per day. However, in no event shall the total liquidated damages exceed 20% of the actual cost of the TIF. The Parties agree that such liquidated damages are less than the Generator's actual damages. The Parties agree that the foregoing payments will be made by the TSP to the Generator as just compensation for the damages caused to the Generator, which actual damages are uncertain and impossible to determine at this time, and as reasonable liquidated damages, but not as a penalty or a method to secure performance of this Agreement.



(iii) The TSP shall apply to have the full costs of the TIF included in TCOS. If the PUCT issues a final, appealable order excluding from TCOS any portion of the TIF costs, including higher contractor and vendor costs due to liquidated damage provisions in those contracts and insurance costs to cover liquidated damages, which costs may have been reasonably incurred but which the PUCT finds should not be recovered through TCOS, the Generator shall reimburse the TSP for such costs in an amount not to exceed the difference between the TSP's estimate of the cost of the TIF under Section 4.1.A and the TSP's estimate of the cost of the TIF under Section 4.1.B as reflected in Exhibit "C". Such costs shall be estimated using Good Utility Practice.

(iv) No liquidated damages shall be paid to Generator if the Generator is not ready to commence use of the TIF for the delivery of power to the Plant for Trial Operation or export of power from the Plant on the In-Service Date, unless the Generator would have been able to commence use of the TIF for the delivery of power to the Plant for Trial Operation or export of power from the Plant but for TSP's delay.

(v) If the In-Service Date has been designated by the Generator upon a failure of the Parties to agree on the In-Service Date, the TSP may, at its option, require the Generator to subcontract with the TSP for all or part of the design, procurement, and construction of the TIF in accordance with the TSP's standard subcontractor agreements. In such event, the TSP shall be subject to the payment of liquidated damages to the Generator only if the In-Service Date is not met solely due to the TSP's failure to complete the portion of the TIF for which the TSP has retained responsibility. It is the intent of this subsection to give the TSP full control of the contents and quality of the TIF. To the extent the Generator acts as a subcontractor to the TSP, the following will apply: 1) The Generator shall engineer, procure equipment, and construct the TIF (or portions thereof) using Good Utility Practice and using standards and specifications provided in advance by the TSP; 2) In its engineering, procurement and construction of the TIF, the Generator shall comply with all requirements of law to which the TSP would be subject in the engineering, procurement or construction of the TIF; 3) The TSP shall review and approve the engineering design, acceptance tests of equipment, and the construction of the TIF; 4) The TSP shall have the right to approve and accept for operation the TIF in accordance with the standards and specifications provided in advance by the TSP, such approval and acceptance shall not be unreasonably withheld, conditioned, or delayed; 5) Should any phase of the engineering, equipment procurement, or construction of the TIF, including selection of subcontractors, not meet the standards and specifications provided by the TSP, and therefore be deemed unacceptable, then the Generator shall be obligated to remedy that portion of the TIF or selection of subcontractors that is deemed unacceptable, the TSP's approval of the Generator's selection of subcontractors will not be unreasonably withheld, conditioned or delayed; and 6) Once the TIF are accepted for operation by the TSP, then the TSP shall reimburse the Generator for the reasonable and necessary costs incurred by the Generator to complete the TIF, not to exceed the amount specified in the subcontract. Such reimbursement shall be made within thirty (30) days after receipt of the invoice, unless otherwise agreed to by the Parties.

4.2 Equipment Procurement. If responsibility for construction of the TIF is borne by the TSP, then the TSP shall commence design of the TIF and procure necessary equipment within a reasonable time after all of the following conditions are satisfied:

A. The TSP has completed the Facilities Study pursuant to the Facilities Study Agreement;

B. The TSP has received written authorization to proceed with design and procurement from the Generator by the date specified in Exhibit "B"; and

C. The Generator has provided security to the TSP in accordance with Section 8.3 by the dates specified in Exhibit "B".

4.3 Construction Commencement. The TSP shall commence construction of the TIF as soon as practicable after the following additional conditions are satisfied:

A. Approval of the appropriate Governmental Authority has been obtained for any facilities requiring regulatory approval;

B. Necessary real property rights, if any, have been obtained;

C. The TSP has received written authorization to proceed with construction from the Generator by the date specified in Exhibit "B"; and

D. The Generator has provided security to the TSP in accordance with Section 8.3 by the dates specified in Exhibit "B".

4.4 Work Progress. The Parties will keep each other advised periodically as to the progress of their respective design, procurement, and construction efforts. If, at any time, the Generator becomes aware that the completion of the TIF will not be required until after the specified In-Service Date, the Generator will promptly provide written notice to the TSP of a new, later In-Service Date.

4.5 Conditions Precedent Delay. To the extent this Agreement incorporates a specified In-Service Date and the Generator fails to satisfy conditions precedent under Sections 4.2 and, 4.3 so that the TSP may meet the In-Service Date, the Parties will negotiate in good faith to establish a new schedule for completion of the TIF, and the In-Service Date shall be extended accordingly.

## **ARTICLE 5. FACILITIES AND EQUIPMENT**

5.1 Information Exchange. The Parties shall exchange information and mutually agree upon the design and compatibility of the Parties' interconnection facilities. The Parties shall work

diligently and in good faith to make any necessary design changes to ensure compatibility of the GIF to the TSP System.

5.2 GIF Construction. Generator agrees to cause the GIF to be designed and constructed in accordance with Good Utility Practice, ERCOT Requirements, and the National Electrical Safety Code in effect at the time of construction. Within one hundred and twenty (120) days after Commercial Operation, unless the Parties agree on another mutually acceptable deadline, the Generator shall deliver to the TSP the following "as-built" drawings, information and documents for the GIF: a one-line diagram, a site plan showing the Plant and the GIF, plan and elevation drawings showing the layout of the GIF, a relay functional diagram, relaying AC and DC schematic wiring diagrams and relay settings for all facilities associated with the Generator's main-power transformers, the facilities connecting the Plant to the main power transformers and the GIF, and the impedances (determined by factory tests) for the associated main power transformers and the generators and the impedance of any transmission voltage lines that are part of the GIF.

5.3 TIF Construction. The TSP agrees to cause the TIF to be designed and constructed in accordance with Good Utility Practice, ERCOT Requirements, and the National Electrical Safety Code in effect at the time of construction.

5.4 Equipment Changes. For facilities not described in Exhibit "C", if either Party makes equipment changes to the Plant, the GIF, the TIF or the TSP System which it knows will affect the operation or performance of the other Party's interconnection facilities, the Parties agree to notify the other Party, in writing, of such changes. Such changes shall be made in accordance with ERCOT Requirements and coordinated between the Parties.

5.5 Metering, Telemetry and Communications Requirements.

A. Metering and telemetry of data will be accomplished in accordance with ERCOT Requirements. The specific metering, telemetry and communications equipment to be installed and data to be telemetered are described in Exhibit "C".

B. The metering and telemetry equipment shall be owned by the TSP. However, the TSP shall provide the Generator with metering and telemetry values in accordance with ERCOT Requirements.

C. A minimum set of inputs to the telemetry equipment is specified in Exhibit "C". Additional sets of inputs may be subsequently mutually agreed upon.

D. The TSP will notify the Generator at least five (5) working days in advance of any planned maintenance, inspection, testing, or calibration of the metering equipment, unless otherwise agreed to in writing. The Generator, or its designated representative, shall have the right to be present for these activities and to receive copies of any documents related to the procedures and results.

E. Prior to the connection of the GIF to the TIF, acceptance tests will be performed by the owning Party to ensure the proper functioning of all metering, telemetry and communications equipment associated with the Point of Interconnection and both Parties' interconnection facilities, and to verify the accuracy of data being received by the TSP, ERCOT and the Generator. All acceptance tests will be performed consistent with ERCOT Requirements.

F. The TSP shall, in accordance with Good Utility Practice and ERCOT Requirements, specify communications facilities, including those necessary to transmit data from the metering equipment to the TSP, that are necessary for the effective operation of the Plant and the GIF with the TSP System. Such communication facilities shall be included in Exhibit "C". The Generator shall make arrangements to procure and bear the cost of such facilities.

G. Any changes to the meters, telemetry equipment, voltage transformers, current transformers, and associated panels, hardware, conduit and cable, which will affect the data being received by the other Party must be mutually agreed to by the Parties.

H. Each Party will promptly advise the other Party if it detects or otherwise learns of any metering, telemetry or communications equipment errors or malfunctions that require the attention and/or correction by the other Party. The Party owning such equipment shall correct such error or malfunction as soon as reasonably feasible in accordance with ERCOT Requirements.

#### 5.6 System Protection and Other Controls Requirements.

A. Each Party's facilities shall be designed to isolate any fault, or correct or isolate any abnormality that would negatively affect the other Party's system or other entities connected to the TSP System.

B. The Generator shall be responsible for protection of its facilities consistent with ERCOT Requirements.

C. Each Party's protective relay design shall incorporate the necessary test switches to perform the tests required in Section 5.6.F. The required test switches will be placed such that they allow operation of lockout relays while preventing breaker failure schemes from operating and causing unnecessary breaker operations and tripping the Generator's units.

D. Recording equipment shall be installed to analyze all system disturbances in accordance with ERCOT Requirements.

E. Each Party will test, operate, and maintain System Protection Equipment in accordance with ERCOT Requirements. Each Party will provide reasonable notice to the other Party of any testing of its System Protection Equipment allowing such other Party the opportunity to have representatives present during testing of its System Protection Equipment.

F. Prior to the In-Service Date, and again prior to Commercial Operation, each Party or its agent shall perform a complete calibration test and functional trip test of the System Protection Equipment. At intervals suggested by Good Utility Practice or at intervals described in the ERCOT Requirements if so defined therein, and following any apparent malfunction of the System Protection Equipment, each Party shall perform both calibration and functional trip tests of its System Protection Equipment. These tests do not require the tripping of any in-service generation unit. These tests do, however, require that all protective relays and lockout contacts be activated.

5.7 No Annexation. Any and all equipment placed on the premises of a Party shall be and remain the property of the Party providing such equipment regardless of the mode and manner of annexation or attachment to real property, unless otherwise mutually agreed by the Parties.

## **ARTICLE 6. OPERATION AND MAINTENANCE**

6.1 Operation and Maintenance of Interconnection Facilities. The Parties agree to operate and maintain their systems in accordance with Good Utility Practice, National Electrical Safety Code, ERCOT Requirements, PUCT Rules and all applicable laws and regulations. In addition, Generator agrees to operate and maintain its system in accordance with the National Electric Code. Subject to any necessary ISO approval, each Party shall provide necessary equipment outages to allow the other Party to perform periodic maintenance, repair, or replacement of its facilities. Such outages shall be scheduled at mutually agreeable times, unless conditions exist which a Party believes, in accordance with Good Utility Practice, may endanger persons or property. No changes will be made in the normal operation of the Point of Interconnection without the mutual agreement of the Parties except as otherwise provided herein. All testing of the Plant that affects the operation of the Point of Interconnection shall be coordinated between the TSP, ERCOT, and Generator and will be conducted in accordance with ERCOT Requirements.

6.2 Control Area. The Control Area within ERCOT is a single Control Area with ERCOT assuming authority as the Control Area operator in accordance with ERCOT Requirements.

6.3 Land Rights and Easements. Terms and conditions addressing the rights of the TSP and the Generator regarding any facilities located on the other Party's property shall be addressed in a separate, duly executed and recorded easement agreement between the Parties. Prior to Commercial Operation, the Parties will mutually agree upon procedures to govern access to each other's property as necessary for the Parties to fulfill their obligations hereunder.

6.4 Service Interruption. The Parties recognize that the interruption of service provisions of the PUCT Rules give TSP the right to disconnect the TSP System from the Plant under the conditions specified therein.

The Generator will promptly disconnect the Plant from the TSP System when required by and in

accordance with the PUCT Rules and ERCOT Requirements.

6.5 Switching and Clearance.

A. Any switching or clearances needed on the TIF or the GIF will be done in accordance with ERCOT Requirements.

B. Any switching and clearance procedure necessary to comply with Good Utility Practice or ERCOT Requirements that may have specific application to the Plant shall be addressed in Exhibit "C".

6.6 Start-Up and Synchronization. Consistent with ERCOT Requirements and the Parties' mutually acceptable procedure, the Generator is responsible for the proper synchronization of the Plant to the TSP System.

6.7 Routine Operational Communications. On a timely basis, the Parties shall exchange all information necessary to comply with ERCOT Requirements.

6.8 Blackstart Operations. If the Plant is capable of blackstart operations, Generator will coordinate individual Plant start-up procedures consistent with ERCOT Requirements. Any blackstart operations shall be conducted in accordance with the blackstart criteria included in the ERCOT Requirements and the TSP's Blackstart Plan on file with the ISO. Notwithstanding this Section, the Generator is not required to have blackstart capability by virtue of this Agreement. If the Generator will have blackstart capability, then Generator shall provide and maintain an emergency communication system that will interface with the TSP during a blackstart condition.

6.9 Power System Stabilizers. The Generator shall procure, install, maintain and operate power system stabilizers if required to meet ERCOT Requirements and as described in Exhibit "C."

## ARTICLE 7. DATA REQUIREMENTS

7.1 Data Acquisition. The acquisition of data to realistically simulate the electrical behavior of system components is a fundamental requirement for the development of a reliable interconnected transmission system. Therefore, the TSP and the Generator shall be required to submit specific information regarding the electrical characteristics of their respective facilities to each other as described below in accordance with ERCOT Requirements.

7.2 Initial Data Submission by TSP. The initial data submission by the TSP shall occur no later than one hundred twenty (120) days prior to Trial Operation and shall include transmission system data necessary to allow the Generator to select equipment and meet any system protection and stability requirements.

7.3 Initial Data Submission by Generator. The initial data submission by the Generator, including manufacturer data, shall occur no later than ninety (90) days prior to the Trial Operation and shall include a completed copy of the following forms contained in the ERCOT Generation Interconnection Procedure: (1) Plant Description/Data and (2) Generation Stability Data. It shall also include any additional data provided to the ISO for the System Security Study. Data in the initial submissions shall be the most current Plant design or expected performance data. Data submitted for stability models shall be compatible with the ISO standard models. If there is no compatible model, the Generator will work with an ISO designated consultant to develop and supply a standard model and associated data.

7.4 Data Supplementation. Prior to Commercial Operation, the Parties shall supplement their initial data submissions with any and all "as-built" Plant data or "as-tested" performance data, which differs from the initial submissions or, alternatively, written confirmation that no such differences exist. Subsequent to Commercial Operation, the Generator shall provide the TSP any data changes due to equipment replacement, repair, or adjustment. The TSP shall provide the Generator any data changes due to equipment replacement, repair, or adjustment in the directly connected substation or any adjacent TSP-owned substation that may affect the GIF equipment ratings, protection or operating requirements. The Parties shall provide such data no later than thirty (30) days after the date of the actual change in equipment characteristics. Also, the Parties shall provide to each other a copy of any additional data later required by the ISO concerning these facilities.

7.5 Data Exchange. Each Party shall furnish to the other Party real-time and forecasted data as required by ERCOT Requirements. The Parties will cooperate with one another in the analysis of disturbances to either the Plant or the TSP's System by gathering and providing access to any information relating to any disturbance, including information from oscillography, protective relay targets, breaker operations, and sequence of events records.

## **ARTICLE 8. PERFORMANCE OBLIGATION**

### **8.1 Generator's Cost Responsibility.**

A. The Generator will acquire, construct, operate, test, maintain, and own the Plant and GIF at its sole expense.

B. In addition, the Generator will be required to make a contribution in aid of construction as set forth in Section 8 of Exhibit "C".

8.2 TSP's Cost Responsibility. The TSP will acquire, own, operate, test, and maintain the TIF at its sole expense, subject to the provisions of Section 4.1.B and the contribution in aid of construction provisions of Section 8.1 of this Agreement.

8.3 Financial Security Arrangements. The TSP may require the Generator to pay a reasonable deposit or provide another means of security, to cover the costs of planning, licensing, procuring equipment and materials, and constructing the TIF. The required security arrangements are specified in Exhibit "E". Within five (5) business days after TSP has received notice from the Generator that the Plant has achieved Commercial Operation and TSP has verified the same, the TSP shall return the deposit(s) or security to the Generator. However, the TSP may retain an amount to cover the incremental difference between the TSP's actual out-of-pocket costs associated with the choice of Section 4.1.B over Section 4.1.A, pending a final PUCT Order as contemplated in Section 4.1.B(iii). If the Plant has not achieved Commercial Operation within one (1) year after the scheduled Commercial Operation date identified in Exhibit "B" or if the Generator terminates this Agreement in accordance with Section 2.1 and the TIF are not required, the TSP may, subject to the provisions of Section 2.2, retain as much of the deposit or security as is required to cover the costs it incurred in planning, licensing, procuring equipment and materials, and constructing the TIF. If a cash deposit is made pursuant to Exhibit "E", any repayment of such cash deposit shall include interest at a rate applicable to customer deposits as established from time to time by the PUCT or other Governmental Authority.

## ARTICLE 9. INSURANCE

9.1 Each Party shall, at its own expense, maintain in force throughout the period of this Agreement, and until released by the other Party, the following minimum insurance coverages, with insurers authorized to do business in Texas:

A. Employers Liability and Worker's Compensation Insurance providing statutory benefits in accordance with the laws and regulations of the State of Texas. The minimum limits for the Employer's Liability insurance shall be One Million Dollars (\$1,000,000) each accident bodily injury by accident, One Million Dollars (\$1,000,000) each employee bodily injury by disease, and One Million Dollars (\$1,000,000) policy limit bodily injury by disease.

B. Commercial General Liability Insurance including premises and operations, personal injury, broad form property damage, broad form blanket contractual liability coverage (including coverage for the contractual indemnification) products and completed operations coverage, coverage for explosion, collapse and underground hazards, independent contractors coverage, coverage for pollution to the extent normally available and punitive damages to the extent normally available and a cross liability endorsement, with minimum limits of One Million Dollars (\$1,000,000) per occurrence/One Million Dollars (\$1,000,000) aggregate combined single limit for personal injury, bodily injury, including death and property damage.

C. Comprehensive Automobile Liability Insurance for coverage of owned, non-owned and hired vehicles, trailers or semi-trailers designed for travel on public roads, with a minimum combined single limit of One Million Dollars (\$1,000,000) per occurrence for bodily injury, including death, and property damage.



D. Excess Public Liability Insurance over and above the Employer's Liability, Commercial General Liability and Comprehensive Automobile Liability Insurance coverage, with a minimum combined single limit of Twenty Million Dollars (\$20,000,000) per occurrence/Twenty Million Dollars (\$20,000,000) aggregate.

E. The Commercial General Liability Insurance, Comprehensive Automobile Liability Insurance, and Excess Public Liability Insurance policies shall name the other Party, its parent, associated and affiliated companies and their respective directors, officers, agents, servants and employees ("Other Party Group") as additional insured. All policies shall contain provisions whereby the insurers waive all rights of subrogation in accordance with the provisions of this Agreement against the Other Party Group. Each Party shall provide thirty (30) days advance written notice to Other Party Group prior to cancellation or any material change in coverage or condition.

F. The Commercial General Liability Insurance, Comprehensive Automobile Liability Insurance and Excess Public Liability Insurance policies shall contain provisions that specify that the policies are primary and non-contributory for any liability arising out of that Party's negligence, and shall apply to such extent without consideration for other policies separately carried and shall state that each insured is provided coverage as though a separate policy had been issued to each, except the insurer's liability shall not be increased beyond the amount for which the insurer would have been liable had only one insured been covered. Each Party shall be responsible for its respective deductibles or retentions.

G. The Commercial General Liability Insurance, Comprehensive Automobile Liability Insurance and Excess Public Liability Insurance policies, if written on a Claims First Made basis, shall be maintained in full force and effect for two (2) years after termination of this Agreement, which coverage may be in the form of tail coverage or extended reporting period coverage if agreed by the Parties.

H. The requirements contained herein as to the types and limits of all insurance to be maintained by the Parties are not intended to and shall not in any manner, limit or qualify the liabilities and obligations assumed by the Parties under this Agreement.

I. Within ten (10) days following execution of this Agreement, and as soon as practicable after the end of each fiscal year or at the renewal of the insurance policy and in any event within ninety (90) days thereafter, each Party shall provide certification of all insurance required in this Agreement, executed by each insurer or by an authorized representative of each insurer.

J. Notwithstanding the foregoing, each Party may self-insure to the extent it maintains a self-insurance program; provided that, such Party's senior secured debt is rated at investment grade, or better, by Standard & Poor's. For any period of time that a Party's senior secured debt is unrated by Standard & Poor's or is rated at less than investment grade by Standard & Poor's, such Party shall comply with the insurance requirements applicable to it under Sections 9.1.A through 9.1.I. In the event that a Party is permitted to self-insure pursuant

to this Section 9.1.J, it shall not be required to comply with the insurance requirements applicable to it under Sections 9.1.A through 9.1.I.

K. The Parties agree to report to each other in writing as soon as practical all accidents or occurrences resulting in injuries to any person, including death, and any property damage arising out of this Agreement.

## ARTICLE 10. MISCELLANEOUS

### 10.1 Governing Law and Applicable Tariffs.

A. This Agreement for all purposes shall be construed in accordance with and governed by the laws of the State of Texas, excluding conflicts of law principles that would refer to the laws of another jurisdiction. The Parties submit to the jurisdiction of the federal and state courts in the State of Texas.

B. This Agreement is subject to all valid, applicable rules, regulations and orders of, and tariffs approved by, duly constituted Governmental Authorities.

C. Each Party expressly reserves the right to seek changes in, appeal, or otherwise contest any laws, orders, rules, or regulations of a Governmental Authority.

10.2 No Other Services. This Agreement is applicable only to the interconnection of the Plant to the TSP System at the Point of Interconnection and does not obligate either Party to provide, or entitle either Party to receive, any service not expressly provided for herein. Each Party is responsible for making the arrangements necessary for it to receive any other service that it may desire from the other Party or any third party. This Agreement does not address the sale or purchase of any electric energy, transmission service, or ancillary services by either Party, either before or after Commercial Operation.

10.3 Entire Agreement. This Agreement, including all Exhibits, Attachments and Schedules attached hereto, constitutes the entire agreement between the Parties with reference to the subject matter hereof, and supersedes all prior and contemporaneous understandings or agreements, oral or written, between the Parties with respect to the subject matter of this Agreement. There are no other agreements, representations, warranties, or covenants, which constitute any part of the consideration for, or any condition to, either Party's compliance with its obligations under this Agreement. Notwithstanding the other provisions of this Section, the Facilities Study Agreement, if any, is unaffected by this Agreement.

10.4 Notices. Except as otherwise provided in Exhibit "D", any formal notice, demand or request provided for in this Agreement shall be in writing and shall be deemed properly served, given or made if delivered in person, or sent by either registered or certified mail, postage prepaid, overnight mail or fax to the address or number identified on Exhibit "D" attached to this

Agreement. Either Party may change the notice information on Exhibit "D" by giving five (5) business days written notice prior to the effective date of the change.

#### 10.5 Force Majeure.

A. The term "Force Majeure" as used herein shall mean any cause beyond the reasonable control of the Party claiming Force Majeure, and without the fault or negligence of such Party, which materially prevents or impairs the performance of such Party's obligations hereunder, including but not limited to, storm, flood, lightning, earthquake, fire, explosion, failure or imminent threat of failure of facilities, civil disturbance, strike or other labor disturbance, sabotage, war, national emergency, or restraint by any Governmental Authority.

B. Neither Party shall be considered to be in Default (as hereinafter defined) with respect to any obligation hereunder (including obligations under Article 4), other than the obligation to pay money when due, if prevented from fulfilling such obligation by Force Majeure. A Party unable to fulfill any obligation hereunder (other than an obligation to pay money when due) by reason of Force Majeure shall give notice and the full particulars of such Force Majeure to the other Party in writing or by telephone as soon as reasonably possible after the occurrence of the cause relied upon. Telephone notices given pursuant to this Section shall be confirmed in writing as soon as reasonably possible and shall specifically state full particulars of the Force Majeure, the time and date when the Force Majeure occurred and when the Force Majeure is reasonably expected to cease. The Party affected shall exercise due diligence to remove such disability with reasonable dispatch, but shall not be required to accede or agree to any provision not satisfactory to it in order to settle and terminate a strike or other labor disturbance.

#### 10.6 Default

A. The term "Default" shall mean the failure of either Party to perform any obligation in the time or manner provided in this Agreement. No Default shall exist where such failure to discharge an obligation (other than the payment of money) is the result of Force Majeure as defined in this Agreement or the result of an act or omission of the other Party. Upon a Default, the non-defaulting Party shall give written notice of such Default to the defaulting Party. Except as provided in Section 10.6.B, the defaulting Party shall have thirty (30) days from receipt of the Default notice within which to cure such Default; provided however, if such Default is not capable of cure within thirty (30) days, the defaulting Party shall commence such cure within thirty (30) days after Default notice and continuously and diligently complete such cure within ninety (90) days from receipt of the Default notice; and, if cured within such time, the Default specified in such Default notice shall cease to exist.

B. If a Default is not cured as provided in this Section, or if a Default is not capable of being cured within the period provided for herein, the non-defaulting Party shall have the right to terminate this Agreement by written notice at any time until cure occurs, and be relieved of any further obligation hereunder and, whether or not that Party terminates this Agreement, to recover from the defaulting Party all amounts due hereunder, plus all other damages and

remedies to which it is entitled at law or in equity. The provisions of this Section will survive termination of this Agreement.

10.7 Intrastate Operation. The operation of the Plant by Generator shall not cause there to be a synchronous or an asynchronous interconnection between ERCOT and any other transmission facilities operated outside of ERCOT unless ordered by the Federal Energy Regulatory Commission under Section 210 of the Federal Power Act. The Parties recognize and agree that any such interconnection will constitute an adverse condition giving the TSP the right to immediately disconnect the TIF from the GIF, until such interconnection has been disconnected. The Generator will not be prohibited by this Section from interconnecting the Plant with facilities operated by the Comision Federal de Electricidad of Mexico, unless such interconnection would cause ERCOT utilities that are not "public utilities" under the Federal Power Act to become subject to the plenary jurisdiction of the Federal Energy Regulatory Commission.

10.8 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.

10.9 No 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 obligations, rights, or duties imposed upon the Parties. Termination or Default of this Agreement for any reason by the Generator shall not constitute a waiver of the Generator's legal rights to obtain an interconnection from the TSP under a new interconnection agreement.

10.10 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.

10.11 Multiple Counterparts. This Agreement may be executed in two (2) or more counterparts, each of which is deemed an original but all constitute one and the same instrument.

10.12 Amendment. This Agreement may be amended only upon mutual agreement of the Parties, which amendment will not be effective until reduced to writing and executed by the Parties.

10.13 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 liability upon either Party. Neither Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, the other Party.

10.14 Further Assurances. The Parties agree to (i) furnish upon request to each other such further information, (ii) execute and deliver to each other such other documents, and (iii) do

such other acts and things, all as the other Party may reasonably request for the purpose of carrying out the intent of this Agreement and the documents referred to in this Agreement. Without limiting the generality of the foregoing, the TSP shall, at the Generator's expense, when reasonably requested to do so by the Generator at any time after the execution of this Agreement, prepare and provide such information in connection with this Agreement (including, if available, resolutions, certificates, opinions of counsel or other documents relating to the TSP's corporate authorization to enter into this Agreement and to undertake the obligations set out herein) as may be reasonably required by any potential lender to the Generator under a proposed loan agreement. The TSP will use commercially reasonable efforts to obtain any opinion of counsel reasonably requested by Generator, but the TSP shall not be in Default of any obligation under this Agreement if the TSP is unable to provide an opinion of counsel that will satisfy any potential lender to the Generator. Specifically, upon the written request of one Party, the other Party shall provide the requesting Party with a letter stating whether or not, up to the date of the letter, that Party is satisfied with the performance of the requesting Party under this Agreement.

10.15 Indemnification and Liability. The indemnification and liability provisions of the PUCT Rule 25.202(b)(2) or its successor shall govern this Agreement.

10.16 Consequential Damages. OTHER THAN THE LIQUIDATED DAMAGES HERETOFORE DESCRIBED, IN NO EVENT SHALL EITHER PARTY BE LIABLE UNDER ANY PROVISION OF THIS AGREEMENT FOR ANY LOSSES, DAMAGES, COSTS OR EXPENSES FOR ANY SPECIAL, INDIRECT, INCIDENTAL, CONSEQUENTIAL, OR PUNITIVE DAMAGES, INCLUDING BUT NOT LIMITED TO LOSS OF PROFIT OR REVENUE, LOSS OF THE USE OF EQUIPMENT, COST OF CAPITAL, COST OF TEMPORARY EQUIPMENT OR SERVICES, WHETHER BASED IN WHOLE OR IN PART IN CONTRACT, IN TORT, INCLUDING NEGLIGENCE, STRICT LIABILITY, OR ANY OTHER THEORY OF LIABILITY; PROVIDED, HOWEVER, THAT DAMAGES FOR WHICH A PARTY MAY BE LIABLE TO THE OTHER PARTY UNDER ANOTHER AGREEMENT WILL NOT BE CONSIDERED TO BE SPECIAL, INDIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES HEREUNDER.

10.17 Assignment. This Agreement may be assigned by either Party only with the written consent of the other Party; provided that either 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 Generator shall have the right to assign this Agreement, without the consent of the TSP, for collateral security purposes to aid in providing financing for the Plant, provided that the Generator will require any secured party, trustee or mortgagee to notify the TSP of any such assignment. Any financing arrangement entered into by the Generator pursuant to this Section 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 TSP of the date and particulars of any such exercise of assignment right(s). Any attempted assignment that violates this Section 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.

10.18 Severability. If any provision in this Agreement is finally determined to be invalid, void or unenforceable by any court having jurisdiction, such determination shall not invalidate, void or make unenforceable any other provision, agreement or covenant of this Agreement; provided that if the Generator (or any third-party, but only if such third-party is not acting at the direction of the TSP) seeks and obtains such a final determination with respect to any provision of Section 4.1.B, then none of the provisions of Section 4.1.B. shall thereafter have any force or effect and the Parties' rights and obligations shall be governed solely by Section 4.1.A.

10.19 Comparability. The Parties will comply with all applicable comparability and code of conduct laws, rules, and regulations, as amended from time to time.

10.20 Invoicing and Payment. Unless the Parties otherwise agree (in a manner permitted by applicable PUCT Rules and as specified in writing in an Exhibit "E" attached hereto), invoicing and payment rights and obligations under this Agreement shall be governed by PUCT Rules or applicable Governmental Authority. Invoices shall be rendered to the paying Party at the address specified on, and payments shall be made in accordance with the requirements of, Exhibit "D".

10.21 Confidentiality.

A. Subject to the exception in Section 10.21.B, any information that a Party claims is competitively sensitive, commercial or financial information under this Agreement ("Confidential Information") shall not be disclosed by the other Party to any person not employed or retained by the other Party, except to the extent disclosure is (i) required by law; (ii) reasonably deemed by the disclosing Party to be required to be disclosed in connection with a dispute between or among the Parties, or the defense of litigation or dispute; (iii) otherwise permitted by consent of the other Party, such consent not to be unreasonably withheld; or (iv) necessary to fulfill its obligations under this Agreement or as a transmission service provider or a Control Area operator including disclosing the Confidential Information to the ISO. The Party asserting confidentiality shall notify the other Party in writing of the information it claims is confidential. Prior to any disclosures of the other Party's Confidential Information under this subsection, or if any third party or Governmental Authority makes any request or demand for any of the information described in this subsection, the disclosing Party agrees to promptly notify the other Party in writing and agrees to assert confidentiality and cooperate with the other Party in seeking to protect the Confidential Information from public disclosure by confidentiality agreement, protective order or other reasonable measures.

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

## EXHIBIT "B"

### TIME SCHEDULE

Interconnection Option chosen by Generator (check one): X Section 4.1.A. or \_\_\_ Section 4.1.B

If Section 4.1.B is chosen by Generator, the In-Service Date(s) was determined by (check one):  
(1) \_\_\_\_\_ good faith negotiations, or (2) \_\_\_\_\_ designated by Generator upon failure to agree.

Date by which Generator must provide notice to proceed with design and procurement and provide security, as specified in Section 4.2, so that TSP may maintain schedule to meet the In-Service Date:

The Execution Date of the Original Agreement

Date by which Generator must provide notice to commence construction and provide security as specified in Section 4.3, so that TSP may maintain schedule to meet the In-Service Date:

The Execution Date of the Original Agreement

In - Service Date(s):

TSP will use Reasonable Efforts to complete the facilities required to provide the Point of Interconnection within eleven (11) months from the date that all applicable conditions under Sections 4.2 and 4.3 of Exhibit "A" hereof are met. Such facilities are identified under Section 8 of Exhibit "C".

Scheduled Trial Operation Date:

November 31, 2014

Scheduled Commercial Operation Date:

December 15, 2014

Due to the nature of the subject of this Agreement, the Parties may mutually agree to change the date and time of this Exhibit "B".

## EXHIBIT "C"

### INTERCONNECTION DETAILS

1. **Substation Name:** Hovey

2. **Location:**

Generator's Hovey Substation ("Substation") is located in Pecos County at 6666 W IH 10, Fort Stockton, Texas 79735, approximately twenty-nine (29) miles west of Fort Stockton and approximately one half (0.5) mile north of TSP's Barrilla Junction 138 kV Station ("Station"). Once the facilities are completed and energized, the Point of Interconnection will be located at the dead-end structure inside the Station that terminates the 138 kV transmission line from the Substation. Specifically, the Point of Interconnection is located where the jumper conductors from the Station equipment connect to the 138 kV transmission line conductors from the Substation. See attached Exhibit "C-1."

3. **Delivery Voltage:** 138 kV

4. **Number and Size of Generating Units:** Maximum 50 MW (net at the Point of Interconnection) Plant capacity, comprised of twenty-eight (28) units at 0.795 MW each and eight (8) units at 3.75 MW each, in a phased build out:

<u>Description</u>	<u>Additional Net Plant Capacity</u>	<u>Cumulative Net Plant Capacity</u>
Phase I – twenty-six (26) SMA 800 inverters without capacitor bank	--	19.8 MW
Phase II – addition of capacitor bank	0.4 MW	20.2 MW
Phase III – addition of two (2) SMA 800 inverters and one (1) GE inverter	5.2 MW	25.4 MW
Phase IV – addition of one (1) GE inverter	3.6 MW	29 MW
Phase V – addition of six (6) GE inverters	21 MW	50 MW

5. **Type of Generating Units:** First Solar Photovoltaic Modules. SMA 800 inverters with an output power rating of 0.795 MW each. GE inverters with an output power rating of 3.75 MW each.



**6. Metering and Supervisory Control and Data Acquisition (“SCADA”) Equipment:**

a) The ERCOT Polled Settlement (“EPS”) metering equipment described below will be procured, paid for, owned and installed by TSP inside the Station:

- i) one (1) 138 kV meter panel with one (1) primary meter and one (1) back up meter
- ii) three (3) 138 kV billing accuracy metering units comprised of combination potential transformers and current transformers. The metering will be a three-phase, four-wire system

b) The SCADA equipment described below will be paid for, procured, owned, and installed by TSP inside the Substation:

- i) one (1) remote terminal unit (“RTU”), including associated interface equipment

c) Such facilities shall meet the following TSP requirements in addition to the ERCOT Requirements. If there is a conflict between the TSP requirements below and the ERCOT Requirements, the ERCOT Requirements shall prevail.

- i) The transfer of power between the TIF and GIF shall be read as if metered at the Point of Interconnection with bi-directional metering. Backfeed power from the TSP System to the Plant is “MW Out.” “MW Out” is considered positive and “MW In” is considered negative. The same conventions will be observed on the reactive power. Each of the four quantities will be recorded separately. Recording of Plant and GIF energy usage for the billing period will be determined by the EPS metering installed by TSP. For a Generator having more than one (1) Point of Interconnection (for example, two (2) or more lines), independent bi-directional metering is required at each Point of Interconnection.
- ii) Meters are required for net generation output, with the bi-directional feature used to measure station use auxiliaries when not exporting power. Unless used for the interconnection metering, all voltage and current transformers used for generation metering shall conform to relay accuracy class or better. MW and MVAR transducers shall be 3-element transducers with an accuracy of  $\pm 0.2\%$  or better.
- iii) If requested by Generator, and if available from the TSP RTU equipment, TSP will configure one (1) RTU communications port for the polling of

metering quantities to be determined by mutual agreement. If such metering quantities are not available from TSP RTU equipment, they may be available by alternate means at Generator's expense. If requested by Generator, MW and MVAR transducers shall be 3-element transducers with an accuracy of  $\pm 0.2\%$  or better.

- iv) Appropriate personnel of the Parties and ERCOT shall be involved in engineering changes of interconnect metering equipment from project inception. Representatives of the Parties and ERCOT must be notified so a mutually agreeable time can be set for the changes. Both Parties and ERCOT must be satisfied with the making of any changes.
- v) Metering and operation personnel of the Parties shall be notified at least forty-eight (48) hours in advance, or at a mutually acceptable advance notice, prior to any calibrations or maintenance. In emergency conditions, TSP may make necessary repairs with notification to affected parties within twenty-four (24) hours. Copies of the repair and calibration records shall be forwarded to the metering and operation personnel of the Parties.

## **7. Generator Interconnection Facilities:**

GIF include the following:

- i) the Substation and all facilities within it, except for those facilities identified as being owned by TSP in Section 6 above and Section 8 below
- ii) communication facilities described in Section 9a below
- iii) one (1) 138 kV transmission line from the Substation to the Station, including structures, conductors, insulators, and connecting hardware
- iv) fiber optic cable from the Substation to the Station
- v) control building space to accommodate TSP's panels for the RTU, station data repository ("SDR") and disturbance monitoring equipment ("DME")

## **8. Transmission Service Provider Interconnection Facilities:**

TIF are required to synchronize and deliver Plant capacity and energy output to the TSP System. TIF include the following:

- i) metering and SCADA equipment described in Section 6 above
- ii) an SDR described in Section 10 below
- iii) communication facilities described in Section 9b below
- iv) entrance duct at the Station to accommodate fiber cable from the Substation

- v) control building space to accommodate Generator's fiber distribution panel ("FDP") at the Station
- vi) raise the height of structures and conductors on existing TSP transmission lines in three (3) locations to provide increased ground clearance ("Increased Ground Clearance")

TSP has agreed to install the Increased Ground Clearance to permit Generator to construct its 138 kV transmission line from the Substation to the Station based upon Generator's agreement to pay TSP's costs of installing the Increased Ground Clearance as a contribution in aid of construction ("CIAC") in accordance with Section 8.1.B of Exhibit "A". TSP's estimate of those costs is Seven Hundred Fifty Thousand Dollars (\$750,000). TSP's agreement to construct the Increased Ground Clearance is conditioned upon receipt of a CIAC payment from Generator in that amount within ten (10) business days of the Execution Date of the Original Agreement. Generator's failure to timely pay that amount shall constitute a Default, and in that event, TSP shall have all the rights and remedies set forth in Section 10.6 of Exhibit "A" to this Agreement. Such payment shall be subject to a true-up upon TSP's determination of the actual cost of installing the Increased Ground Clearance; and Generator will pay any additional amount owed (within thirty (30) days of receipt of an invoice therefore); or TSP will reimburse Generator for any overpayment (within thirty (30) days of TSP's determination of actual cost) as applicable. Generator understands and agrees that TSP's cost of installing the Increased Ground Clearance will include an interest component, to cover TSP's cost of capital during construction of the Increased Ground Clearance, an overhead component, to cover TSP's general operating and administrative costs, and a federal income tax component, to cover TSP's federal income tax liability resulting from the CIAC payment. Generator understands and agrees that it receives no ownership or control of the Increased Ground Clearance by virtue of the payment of the CIAC. The Increased Ground Clearance installed by TSP will remain the property of TSP. Generator also understands and agrees that TSP will not begin construction of the Increased Ground Clearance until full payment of the CIAC has been received by TSP.

## 9. Communications Facilities:

- a) The communications facilities described below will be paid for, owned, and installed by Generator.
  - i) one (1) dedicated voice dispatch circuit between TSP's Corpus Christi, TX dispatch office and Generator's control center, including associated interface equipment at Generator's control center
  - ii) one (1) RTU communications circuit between the Substation and TSP's master SCADA system at TSP's Abilene, TX dispatch office
  - iii) one (1) telephone company interface box (demarcation equipment) at the Substation for demarcation of telephone company circuits

- iv) high voltage isolation equipment for all telephone company circuits at the Substation
- b) The communications facilities described below will be paid for, owned, and installed by TSP.
  - i) one (1) dial-up circuit including associated interface equipment at the location of the EPS meter facilities
- c) All communication facilities shall meet the following TSP requirements in addition to ERCOT Requirements. If there is a conflict between the TSP requirements below and ERCOT Requirements, the ERCOT Requirements shall prevail.
  - i) Generator shall be responsible for confirming with TSP the project-specific circuit requirements and requesting specific TSP addresses and TSP contact names in preparation for issuing communication circuit orders with Generator's telecommunication service provider of choice. These communication circuits shall be leased telephone company circuits satisfactory to TSP. For each telephone company circuit leased by Generator, Generator shall provide TSP and the telecommunication service provider with advanced authorization for communication circuit maintenance, allowing TSP and any of its affiliates and subsidiaries to monitor the circuit, report trouble and take corrective action with the telecommunication service provider, at Generator's expense, to maintain circuit reliability. The communication circuits described here shall be operational and commissioned by TSP prior to TSP placing the interconnection facility in service. Typical facility circuit requirements include the following:
    - 1) RTU communications circuit - This is a leased circuit from the demarcation equipment (the "demark") associated with the RTU at the Substation to the TSP dispatch office; this circuit is to be ordered and paid for by Generator. One (1) circuit is required for each RTU. This circuit will be utilized by TSP to communicate with the RTU and, if applicable, the SDR. The required RTU communications circuit is a T1 (or another circuit as specified by TSP).
    - 2) Voice dispatch circuit - This is a leased circuit from the Plant operators to the TSP dispatch office. If the Plant operators are not located on the Plant site, then the circuit must be terminated at the actual location of the Plant operators. This dedicated circuit is required of Generator where the total Plant generation capacity is equal to or greater than 50 MVA. This circuit is to be ordered and paid for by Generator. Dispatch calls placed by the TSP dispatch

office to Generator must be answered live and immediately by a Generator dispatcher twenty-four (24) hours per day and seven (7) days per week. Connections to the public telephone network do not meet the TSP requirement of a dedicated voice dispatch circuit; connections to the public telephone network include, but are not limited to, a dial-up circuit (also known as a POTS line) and a toll-free telephone number. The required voice dispatch circuit is a T1 (or another circuit as specified by TSP).

- 3) Dial-up circuit - This is a standard business telephone line (with a 10-digit telephone number, also known as a POTS line) with long distance provisioning to be ordered and paid for by Generator. The dial-up circuit provides a connection to the public telephone network. The requirement for one (1) or more dial-up circuits will be determined by TSP on a project-specific basis. This circuit may be required for voice communications and interconnect meter reading. If interconnect meters are located at multiple sites, then multiple dial-up circuits may be required. If multiple meters are located at the same site, one (1) dial-up circuit may suffice for dial-up access. If approved by TSP, Generator may install a telephone switch to share one (1) dial-up circuit among multiple meters.
- ii) For all telephone company circuits leased into the Substation, demarcation equipment (also referred to as the demark or telephone company interface box) satisfactory to TSP shall be installed, owned and maintained by Generator. The demark shall house all telephone company circuit termination equipment at the Substation, including, but not limited to, the network interface. The demark shall provide the interface between the telephone company's service cable and the Substation. Generator shall provide 120 VAC power to the demark sourced from an appropriately sized DC/AC inverter in the Substation control building. The DC/AC inverter shall be powered from a dedicated Substation DC breaker sourced from a minimum 8-hour Substation battery. The demark shall be located on the Substation ground grid and accessible outside the Substation fence or through a secured personnel gate or door. Generator shall install, own and maintain communications cable with surge protection satisfactory to TSP between the demark and the Substation control building. Telephone company personnel shall have no access to the control building housing the TSP RTU. The demark design shall accommodate twenty-four (24) hour per day accessibility by TSP personnel without escort from telephone company personnel, Generator, facility operator or land owners. The demark design shall accommodate twenty-four (24) hour per day accessibility by telephone company personnel without escort from TSP personnel, Generator, facility operator or land owners. Prior to construction of the demark, Generator is to submit its design to TSP for

review and approval; such design is to include physical locations of the telephone company's service cable, Substation ground grid, demark mounting structure, Substation fence and Substation control building. The demark described here shall be operational and commissioned by TSP prior to TSP placing the interconnection facility in service.

- iii) High Voltage Isolation ("HVI") facilities at Substation satisfactory to TSP shall be installed and maintained as described below. Such HVI facilities shall include either telephone company-installed all-dielectric fiber optic service cable installed to the demark through the ground potential rise ("GPR") high voltage zone of influence, or HVI equipment installed at the demark for all telephone company circuits carried on copper cable. Prior to construction of HVI facilities, Generator is to submit its design to TSP for review and approval; such design is to include physical locations of the telephone company's service cable, Substation ground grid, demark mounting structure, HVI facilities, Substation fence and Substation control building:

Option 1) All-dielectric fiber optic service cable - Generator shall cause the telephone company to install, own and maintain all-dielectric fiber optic service cable to the demark located on the Substation ground grid. Armored fiber optic cable shall not be installed within the GPR high voltage zone of influence. Armored fiber optic cable shall be transitioned to all-dielectric fiber optic cable by the telephone company outside the GPR high voltage zone of influence. This all-dielectric fiber optic service cable is to extend from a location at or beyond the 300 volt point, through the GPR high voltage zone of influence, to the demark. The all-dielectric fiber optic service cable design (no metallic members such as protective armor sheath or trace wire) and its installation (no metallic members such as metal conduit, power cable, or wire) shall be satisfactory to TSP. The all-dielectric fiber optic service design shall accommodate twenty-four (24) hour per day accessibility by telephone company personnel without escort from TSP personnel, Generator, facility operator, or landowners.

Option 2) HVI equipment for copper cable - HVI equipment for all telephone company circuits carried on copper cable to the Substation demark shall be installed and maintained by Generator. The HVI equipment shall be designed to adequately protect against GPR and shall be satisfactory to TSP and the telephone company. The HVI equipment shall be located on the Substation ground grid and accessible outside the Substation fence or through a secured personnel gate or door. The HVI equipment shall be located on the central office (telephone company) side of the demark. The HVI

equipment design shall accommodate twenty-four (24) hour per day accessibility by TSP personnel without escort from telephone company personnel, Generator, facility operator or landowners. The HVI equipment design shall accommodate twenty-four (24) hour per day accessibility by telephone company personnel without escort from TSP personnel, Generator, facility operator, or landowners. The HVI facilities described above shall be operational and commissioned by TSP prior to TSP placing the interconnection facility in service.

- iv) Generator shall provide an access plan to TSP for review and approval. Such access plan is to document Generator, TSP and telephone company personnel access privileges and restrictions to interconnection facilities on Generator's property, including, but not limited to, the RTU, SDR, DME, metering equipment, telephone company interface box (demarcation equipment), high voltage isolation equipment and fiber optic equipment. The access plan described above shall be approved by TSP and implemented by Generator prior to TSP placing the interconnection facility in service.
- v) If the GIF include fiber optic cable, including, but not limited to optical ground wire ("OPGW"), all-dielectric self-supporting ("ADSS") cable and underground fiber optic cable, it shall be installed by Generator in accordance with TSP specifications. Generator shall, at its cost, engineer, furnish, and install at its Substation an all-dielectric fiber optic station entrance cable system to ensure that no fiber optic cable with metallic members is extended into the Substation control building. Fiber optic cable with metallic members includes, but is not limited to, OPGW, fiber optic cable with an integral trace wire, and metallic-armored fiber optic cable. The all-dielectric fiber optic station entrance cable system shall include all-dielectric fiber optic station entrance cable; the outdoor splice case, trays and fusion splice sleeves for the fiber optic cable to station entrance cable transition; the indoor splice housing, trays and fusion splice sleeves; fiber pigtails and the control building FDP. If the GIF include fiber optic cable that contains no metallic members, it may be extended into the Substation control building without transitioning to the all-dielectric fiber optic station entrance cable noted above. Generator shall, at its cost, at its Substation, perform splicing of all fibers in the transition splice and the FDP. TSP shall, at Generator's expense, engineer, furnish, and install at TSP's Station the all-dielectric fiber optic station entrance cable system to be owned by Generator, and shall perform splicing of all fibers in the transition splice and the FDP. Generator hereby grants to TSP, at no cost to TSP and for so long as this Agreement remains in effect, an indefeasible right to use the last twenty-four (24) fibers in the fiber optic cable. Generator, at its sole expense, will maintain in operating

condition such fiber optic cable and associated station entrance cable systems at Substation and TSP's Station. In addition, Generator hereby grants to TSP the following rights:

- 1) the right to co-locate fiber optic equipment in the Substation
- 2) access to and use of all TSP-assigned fibers - FDP to FDP
- 3) access to and use of all route splice points, with the right to cross-connect TSP-assigned fibers for through circuits - FDP to FDP, and equipment to FDP
- 4) control building rack space for communications equipment
- 5) dedicated Substation DC breakers and cables sourced from a minimum 8-hour Substation battery
- 6) dedicated Substation 120 VAC breakers and cables upon request
- 7) access to the Substation for the installation and management of fiber jumpers and electronics

Unless otherwise agreed or otherwise specified in this Agreement, each Party will be responsible for maintenance and repair of its facilities and equipment. Upon Generator's request and TSP acceptance, TSP will, at Generator's expense, provide maintenance and repair including replacement, if needed, of the station entrance cable systems at the Substation and TSP's Station.

- vi) Fiber optic cable with metallic members shall not be terminated in or routed through the Substation control building, the telephone company interface box (demarcation equipment), or the Substation's high voltage isolation enclosure. Fiber optic cable with metallic members includes, but is not limited to, OPGW, fiber optic cable with an integral trace wire, and metallic-armored fiber optic cable. Fiber optic cable with metallic members shall be transitioned to all-dielectric fiber optic cable, satisfactory to TSP, prior to the fiber entering the Substation control building, the telephone company interface box, or the Substation's high voltage isolation enclosure. The all-dielectric fiber optic cable design (no metallic members such as protective armor sheath or trace wire), the all-dielectric fiber optic cable installation (no metallic members such as metal conduit, power cable, or wire), and the transition splice shall be satisfactory to TSP.
- vii) TSP reserves the right to require two fiber optic cables between the TSP facilities and the Generator facilities along diverse routes satisfactory to TSP for redundancy purposes. TSP's preference for such diversely routed fiber is one (1) aerial cable (either OPGW or ADSS) and one (1) underground cable; based upon the project configuration, other combinations of OPGW, ADSS and underground may be acceptable to TSP.



## **10. System Protection Equipment:**

Protection of each Party's system shall meet the following TSP requirements in addition to ERCOT Requirements. If there is a conflict between the TSP requirements below and ERCOT Requirements, the ERCOT Requirements shall prevail.

- i) TSP assumes no responsibility for the protection of the Plant and GIF for any or all operating conditions. Generator is solely responsible for protecting his equipment in such a manner that faults or other disturbances on the TSP System or other interconnected systems do not cause damage to the Plant and GIF.
- ii) It is the sole responsibility of Generator to protect its Plant and GIF from excessive negative sequence currents.
- iii) Generator shall furnish at a minimum, a manual disconnect switch with visual contacts and allowance for padlocking, to separate the Plant and GIF from TIF. The location of this switch will be determined by TSP, and be readily accessible to TSP at all times. The disconnect switch will be under the exclusive control of TSP and will be considered as part of TSP's switching arrangement. TSP reserves the right to open this disconnecting device, isolating the Plant and GIF for any of the following reasons:
  - 1) The Plant or GIF, upon TSP's determination, cause objectionable interference with other customers' service or with the secure operation of the TSP System.
  - 2) The Plant output as determined by TSP exceeds the operating boundaries outlined above.
  - 3) Generator's control and protective equipment causes or contributes to a hazardous condition. TSP reserves the right to verify on demand all protective equipment including relays, circuit breakers, etc. at the inter-tie location. Verification may include the tripping of the tiebreaker by the protective relays.
  - 4) In TSP's opinion, continued parallel operation is hazardous to Generator, the TSP System or to the general public.
  - 5) To provide TSP or TSP personnel the clearances for dead line or live line maintenance.

TSP will attempt to notify Generator before disconnection, but notification may not be possible in emergency situations that require immediate action.

- iv) Automatic reclosing is normally applied to transmission and distribution circuits. When TSP's source breakers trip and isolate the Plant and GIF, Generator shall insure the Plant and GIF are disconnected from the TSP

circuit prior to automatic reclosure by TSP. Automatic reclosing out-of-phase with the Plant may cause damage to Generator's equipment. Generator is solely responsible for the protection of his equipment from automatic reclosing.

- v) For disturbance monitoring of Generator's facilities, TSP requires a combination of SDR points and event recordings. SDR points are collected by TSP's SDR. Event recordings are to be supplied to TSP by Generator from Generator's equipment. An SDR and associated recording equipment will be paid for, owned and installed by TSP; installation shall be at either TSP's or Generator's facilities, as determined by TSP. If more than one (1) generation unit is connected to the low side of the step-up transformer or transmission line tied to TSP, the SDR and recording equipment will be installed at the generation plant. Such TSP recording equipment, consisting of one (1) or more intelligent electronic devices ("IEDs"), monitors Generator's facilities and is polled by the SDR. For an SDR installed in Generator's facilities, Generator shall provide the cable and conduit for the SDR and the necessary connections to the recording equipment; TSP will terminate the signal connections in the SDR and recording equipment. A project-specific SDR points list will be developed by TSP based upon the project's electrical configuration. For such purpose, Generator shall be responsible for providing TSP with metering and relaying one-line diagrams of Generator's facilities. For thermal powered generation, Generator is required, upon TSP request, to provide event recordings per generation unit in a format satisfactory to TSP. For all other generation, Generator is required, upon TSP request, to provide event recordings per collection feeder in a format satisfactory to TSP. All disturbance monitoring equipment shall be equipped for time synchronization. The monitoring requirements of TSP do not reduce Generator's obligation to meet all disturbance monitoring requirements of the North American Electric Reliability Corporation ("NERC").
- vi) Documentation of all protective device settings shall be provided to TSP. The setting documentation shall also include relay type, model/catalog number, and setting range. If automatic transfer schemes or unique or special protective schemes are used, a description of their operation should be included. TSP must review and approve the settings of all protective devices and automatic control equipment which: 1) serve to protect the TSP System from hazardous currents and voltages originating from the Plant or 2) must coordinate with System Protection Equipment or control equipment located on the TSP System.

## 11. RTU and SCADA Inputs:

a) A transmission-specific RTU is required for all transmission interconnections. In addition, a generation-specific RTU may be required for TSP's generation-specific SCADA. Generator shall marshal all their RS-485 and hardwired RTU inputs at a marshalling cabinet (interface terminal block or interface cabinet) satisfactory to TSP. Generator shall engineer, procure, construct and own the marshalling cabinet, wire to the marshalling cabinet from the various generation or Substation equipment, provide TSP with documentation identifying the location of generation or Substation SCADA points wired to the marshalling cabinet, and provide TSP with terminals at the marshalling cabinet from which to wire to the RTU. Generator shall provide a dedicated Substation DC breaker and cable sourced from a minimum 8-hour Substation battery for each RTU located at Generator's facilities.

b) Prior to TSP placing the Plant or GIF in service, the transmission-specific RTU and the generation-specific RTU described here shall be operational with TSP-required RTU functions commissioned by TSP.

c) In addition to ERCOT Requirements, the following information shall be supplied by Generator, regardless of the size of the Substation capacity, for each Point of Interconnection and connected to TSP's recording equipment and the transmission-specific RTU used for the transmission interconnection. If there is a conflict between the TSP requirements below and ERCOT Requirements, the ERCOT Requirements shall prevail. Inputs to the transmission-specific RTU shall be supplied from a TSP-approved interface device or hardwired. RTU inputs from a TSP-approved interface device shall be RS-232 (with optical isolation) or RS-485 using DNP 3.0 protocol.

### i) Status Points

- 1) Transmission line breaker status (required for each Generator-owned transmission line)
- 2) Transmission line lockout relay operated (required for each Generator-owned transmission line)
- 3) Transmission line lockout relay failure (required for each Generator-owned transmission line)
- 4) IED communications failure (required for each IED sourcing a required point)
- 5) Battery charger trouble (required for the battery powering the RTU)
- 6) Battery charger AC power failure (required for the battery powering the RTU)
- 7) Smoke alarm (required for the structure housing the RTU)
- 8) Fire or high temperature alarm (required for the structure housing the RTU)

- ii) Analog Points from each Generator-owned transmission line shall include MW, MVAR, MVA, HZ, distance-to-fault, voltage per phase and current per phase. Analog Points from each Generator-owned transmission line breaker shall include current per phase.
  - iii) Hourly Accumulation Points from each Generator-owned transmission line shall include MWh In, MWh Out, MVARh In, and MVARh Out.
- d) For plants where the total generation capacity is equal to or greater than 5 MVA, a generation-specific RTU is required at the Plant or GIF for TSP's generation-specific SCADA. A specific RTU points list will be developed by TSP as a part of each generation project based upon the project's electrical configuration. For such purpose, Generator shall be responsible for providing TSP with metering and relaying one-line diagrams of the generation and Substation facilities. Generator shall provide TSP with a station communications drawing which is to include RTU point sources (IEDs and contacts supplying required data), interface devices, and connections to the RTU. The following points list is a comprehensive list that is not intended to be the final point list that will be designed by TSP for the Plant:
- i) Control Points – The following RTU inputs shall be hardwired.
    - 1) Trip (required for one (1) or more breakers, that is, TSP-approved load-break devices, to provide TSP with the ability to trip all generation units during system emergencies)
  - ii) Status Points – Status inputs to the generation-specific RTU shall be supplied from a TSP-approved interface device or hardwired as specified below. Status point RTU inputs from a TSP-approved interface device shall be RS-232 (with optical isolation) or RS-485 using DNP 3.0 protocol.
    - 1) Generation breaker status (hardwired for each breaker where trip control is required)
    - 2) Circuit switcher / line switch status (“a” and “b” contacts)
    - 3) Transformer high-side breaker status (hardwired for each breaker where trip control is required)
    - 4) Transformer high-side motor operated switch status (“a” and “b” contacts)
    - 5) Auxiliary breaker status
    - 6) Collection feeder breaker status
    - 7) Tie breaker status
    - 8) Dynamic reactive controller (off/on)
    - 9) Dynamic reactive controller (manual/auto)
    - 10) Dynamic reactive controller (voltage/power factor)
    - 11) Shunt device (capacitor and reactor) breaker/switch status

- 12) Supervisory cutoff (hardwired for each breaker where trip control is required)
  - 13) Breaker failure lockout status (hardwired for each breaker where trip control is required)
  - 14) Breaker critical alarm (required for each breaker where trip control is required, combine critical alarms for each breaker)
  - 15) Transformer critical alarm (combine critical alarms for each transformer)
  - 16) Transformer primary lockout relay operated
  - 17) Transformer primary lockout relay failure
  - 18) Transformer backup lockout relay operated
  - 19) Transformer backup lockout relay failure
  - 20) Generation unit automatic voltage regulator ("AVR") status
  - 21) Black start availability
- iii) Analog Points – Analog inputs to the generation-specific RTU shall be supplied from a TSP-approved interface device or hardwired. Analog point RTU inputs from a TSP-approved interface device shall be RS-232 (with optical isolation) or RS-485 using DNP 3.0 protocol.
- 1) Generation gross MW (required for each thermal-powered generation unit)
  - 2) Generation gross MVAR (bi-directional values required for each thermal-powered generation unit)
  - 3) Generation station use MW auxiliary (required for each auxiliary transformer)
  - 4) Generation station use MVAR auxiliary (bi-directional values required for each auxiliary transformer)
  - 5) Station frequency HZ (for those stations where a common bus does not exist between multiple generation units, individual unit frequency points will be required)
  - 6) Voltage per phase for each winding of each transformer
  - 7) Current per phase for each winding of each transformer
  - 8) MW for each winding of each transformer
  - 9) MVAR for each winding of each transformer (bi-directional values required)
  - 10) MW for each circuit breaker/switcher in the station
  - 11) MVAR for each circuit breaker/switcher in the station (bi-directional values required)
  - 12) MW for each collection feeder
  - 13) MVAR for each collection feeder (bi-directional values required)
  - 14) Voltage per phase of each collection feeder
  - 15) Voltage per phase of each shunt device (capacitor and reactor)
  - 16) MVAR for each shunt device (capacitor and reactor) (bi-directional values required)

- 17) Tap position for each power transformer
- 18) Dynamic MVAR capability at the current MW generation amount (required for each dynamic reactive controller)
- 19) Voltage set point for each dynamic reactive controller
- 20) Power factor set point for each dynamic reactive controller

## **12. Supplemental Terms and Conditions:**

The following supplemental terms and conditions shall be met unless there is a conflict between these terms and conditions and ERCOT Requirements, in which case the ERCOT Requirements shall prevail. Such ERCOT Requirements include, but are not limited to, ERCOT Nodal Protocols sections 1.3.1, 3.15, and 8.1.1; ERCOT Nodal Operating Guides sections 2.2.5, 2.2.6, 2.7, 2.9.1 and 6.2.2; the ERCOT Operating Procedures; and any successors thereto.

- a) Each Party shall be consulted during the planning and design process of the Plant, GIF, and TIF. The engineering and design work (including drawings, plans, materials lists, specifications and other documentation and supporting data) will be prepared in accordance with Good Utility Practice and all applicable laws and regulations, and is intended to be used solely in connection with the construction of the Plant, GIF and TIF. Neither Party shall make use of any aspect of the engineering and design work of the other Party for any other projects without the prior written consent of the other Party. Each Party shall treat such engineering and design work of the other Party as Confidential Information under Section 10.21 of Exhibit "A".
- b) TSP shall provide to Generator monthly progress reports on the status of the Work. TSP shall be available for status meetings with Generator and its designees, which meetings will provide a detailed description of the progress of the Work, identify any problems and a plan to solve the problems and provide such other information as is reasonably requested by Generator. Such meetings shall take place at the offices of TSP in Tulsa, Oklahoma, at the Plant site, or at other mutually agreeable locations.
- c) If wye-delta connected transmission voltage step-up transformers are utilized they shall be wye connected to the TIF and delta connected to the GIF.
- d) Generator shall submit drawings of the GIF to TSP for review. TSP will review only those portions of the drawings that affect the TSP System. Any changes required by TSP shall be made prior to final issue of drawings and TSP shall be provided with final copies of the revised drawings. TSP will review only those portions of the drawings, which apply to protection, metering and monitoring of the TSP System. To aid Generator, TSP may make suggestions on other areas. TSP's review of Generator's drawings shall not be construed as confirming or endorsing the design or as any warranty of safety, durability, or reliability of the facility or equipment. Generator shall provide copies of the following:

- i) one-line and three-line diagrams indicating the following:
  - 1) equipment names and/or numerical designations for all circuit breakers, contactors, air switches, transformers, generators, etc., associated with the generation as required by TSP to facilitate switching
  - 2) power transformers – nameplate or designation, nominal kVA, nominal primary, secondary, tertiary voltages, vector diagram showing winding connections, tap setting and transformer impedances (transformer test report showing the positive sequence, zero sequence, test voltages and MVA base for each winding)
  - 3) station service transformers – phase(s) connected to and estimated kVA load
  - 4) instrument transformers – voltage and current, phase connections
  - 5) surge arresters/gas tubes/metal oxide varistors/avalanche diode/spill gaps/surge capacitors, etc. – type and ratings
  - 6) capacitor banks – kVAR rating and reactive (static and dynamic) device operation capability
  - 7) reactive device capability (required for wind generation only) – kVAR rating and reactive device operation capability for static and dynamic devices for each generation collection feeder
  - 8) disconnect switches – status if normally open (N.O.), manual or motor operated including switch voltage, continuous and interrupting ratings
  - 9) circuit breakers and/or contactors – interrupting rating, continuous rating, operating times
  - 10) generators(s) – nameplate, test report, type, connection, kVA, voltage, current, rpm, power factor, impedances, time constants, etc.
  - 11) Point of Interconnection and phase identification
  - 12) fuses – manufacturer, type, size, speed, and location
  - 13) transmission structure geometry (phase-to-phase, phase-to-ground, and shield-to-phase), phase conductor data, shield wire data, transmission line ratings, positive and zero sequence impedances and mileage
- ii) potential and current elementary drawings associated with the protection and control schemes for the Plant and GIF and control elementary drawings of the Plant and interconnection circuit breaker indicating the following:
  - 1) terminal designation of all devices – relay coils and contacts, switches, transducers, etc.

- 2) relay functional designation – per latest ANSI Standard where the same functional designation shall be used on all drawings showing the relay
- 3) complete relay type (such as CV-2, SEL321-1, REL-301, IJS51A, etc.)
- 4) switch contact as referenced to the switch development if development is shown on a separate drawing.
- 5) switch developments and escutcheons where the majority of contacts are used. Where contacts of a switch are used on a separate drawing, that drawing should be referenced adjacent to the contacts in the switch development. Any contacts not used should be referenced as spare.
- 6) all switch contacts shown open with each labeled to indicate the positions in which the contact will be closed with explanatory notes defining switch coordination and adjustment where mis-adjustment could result in equipment failure or safety hazard
- 7) auxiliary relay contacts as referenced to the coil location drawing if coil is shown on a separate drawing where all contacts of auxiliary relays should be shown and the appropriate drawing referenced adjacent to the respective contacts
- 8) device auxiliary switches (circuit breakers, contactor) as referenced to the drawing where they are used.
- 9) any interlocks - electromechanical, key, etc., associated with the generation or interconnection Substation.
- 10) ranges of all timers and setting if dictated by control logic
- 11) all target ratings; on dual ratings note the appropriate target tap setting
- 12) complete internal for electromechanical protective relays where microprocessor type relays may be shown as a “black box”, with manufacturer’s instruction book number referenced and terminal connections shown
- 13) isolation points (states links, PK-2 and FT-1 blocks), etc., including terminal identification
- 14) all circuit elements and components, with device designation, rating and setting where applicable and where coil voltage is shown only if different from nominal control voltage
- 15) size, type, rating and designation of all fuses
- 16) phase sequence designation as ABC or CBA
- 17) potential transformers – nameplate ratio, polarity marks, rating, primary and secondary connections
- 18) current transformers (including aux. CT’s) – polarity marks, rating, tap ratio and connection



e) Generator may not commence parallel operation of the Plant until consent has been given by TSP. TSP reserves the right to inspect the GIF and witness testing of any equipment or devices associated with the Point of Interconnection.

f) The Plant and GIF shall not cause objectionable interference with the electric service provided to other customers of TSP nor jeopardize the security of the ERCOT power system. In order to minimize objectionable interference of the Plant and GIF, the Plant and GIF shall meet the following criteria:

- i) Voltage - The Plant and GIF shall not cause excessive voltage excursions. Generator shall operate its Plant and GIF in such manner that the voltage levels on the TSP System are in the same range as if the Plant and GIF were not connected to the TSP System. Generator shall provide an automatic method of disconnecting its Plant and GIF from the TIF to protect against excessive voltage excursions.
- ii) Flicker - The Plant and GIF shall not cause excessive voltage flicker on the TSP System. Flicker is to be measured at the Point of Interconnection and shall not exceed 1.5% or the Borderline of Visibility Curve Voltage Flicker Chart of ANSI/IEEE Standard 141-1993, whichever is less.
- iii) Frequency – The operating frequency of the Plant shall not deviate from the frequency of the TSP System. Plant under-frequency relays shall be set the same as TSP's under-frequency relays, so that the Plant will not separate from the TSP System during under-frequency conditions until all TSP under-frequency load shedding equipment has operated. Generator will provide applicable settings to TSP prior to Commercial Operation.
- iv) Harmonics, Telephone Interference, and Carrier Interference - The Plant and GIF shall not introduce excessive distortion of the TSP System waveforms; voltage and current; telephone interference; or carrier interference at the Point of Interconnection. IEEE Standard 519 shall be used as a guide.
- v) Fault and Line Clearing - The Plant and GIF shall be disconnected from the TSP System on occurrence of an outage or fault on the TIF serving the Plant radially. Generator is responsible for the electrical stability of its Plant and providing adequate facilities so that critical fault clearing times are met.
- vi) All generation resources (including self-serve generating units) that have a gross generating unit rating greater than twenty (20) MVA or those units connected at the same Point of Interconnection that have gross generating unit ratings aggregating to greater than twenty (20) MVA, that supply

power to the ERCOT transmission grid, shall provide Voltage Support Service (VSS).

- vii) Reactive Power Requirements – Generation resources must be capable of producing a defined quantity of reactive power to maintain a Voltage Profile established by ERCOT Nodal Protocol 3.15. The generator voltage-var schedule, voltage regulator, and transformer ratio settings will be jointly determined by TSP and Generator to ensure proper coordination of voltages and regulator action. The Plant must generate reactive requirements for the Plant and GIF. TSP may, in order to maintain security of the ERCOT power system, request Generator to adjust voltage schedule to accept or supply reactive power.
1. Synchronous Generators shall comply with the following reactive power requirements: an over-excited (lagging) power factor capability of ninety-five hundredths (0.95) or less and an under-excited (leading) power factor capability of ninety-five hundredths (0.95) or less, both determined at the generating unit's maximum net power to be supplied to the ERCOT transmission grid and at the transmission system Voltage Profile established by ERCOT, and both measured at the Point of Interconnection. The reactive power requirements shall be available at all MW output levels.
  2. Induction Generators shall comply with the following reactive power requirements: an over-excited (lagging) power factor capability of ninety-five hundredths (0.95) or less and an under-excited (leading) power factor capability of ninety-five hundredths (0.95) or less, both determined at the generating unit's maximum net power to be supplied to the ERCOT transmission grid and at the transmission system Voltage Profile established by ERCOT, and both measured at the Point of Interconnection. The reactive power requirements shall be available at all MW output levels and may be met through a combination of the Generation Resource's Unit Reactive Limit ("URL"), which is the generating unit's dynamic leading and lagging operating capability, and/or dynamic VAR capable devices. For Wind Generation Resources ("WGR"), the reactive power requirements shall be available at all MW output levels at or above ten percent (10%) of the WGR's nameplate capacity. When a WGR is operating below ten percent (10%) of its nameplate capacity and is unable to support voltage at the Point of Interconnection, ERCOT may require a WGR to disconnect from the ERCOT transmission grid.
  3. Other Generators shall comply with the following reactive power requirements: an over-excited (lagging) power factor capability of