

Control Number: 35077



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Addendum StartPage: 0

# PUBLIC UTILITY COMMISSION OF TEXAS Substantive Rule 25.195(e)

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Project No. 35077

# **Interconnection Agreement**

Dated as of March 7, 2011

Between

# AEP TEXAS CENTRAL COMPANY

And

# LOS VIENTOS WINDPOWER I, LLC

# MARCH 24, 2011

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# INTERCONNECTION AGREEMENT BETWEEN AEP TEXAS CENTRAL COMPANY AND LOS VIENTOS WINDPOWER I, LLC

Dated: March 7, 2011

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# Interconnection Agreement Between AEP Texas Central Company And Los Vientos Windpower I, LLC

This Interconnection Agreement is made and entered into this <u>7<sup>th</sup> day of March, 2011</u> (the "Effective Date") between AEP Texas Central Company ("<u>Transmission Service Provider</u>") and Los Vientos Windpower I, LLC (referred to hereinafter as "<u>Generator</u>"), 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 Plants. Pursuant to the terms and conditions of this Agreement, Transmission Service Provider shall interconnect Generator's Plants with Transmission Service Provider's System consistent with the results of the Facility Study that was prepared in response to generation interconnection request #11INR0033 to the Electric Reliability Council of Texas from Duke Energy.

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

This Agreement shall become effective on the Effective Date first written above, 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 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 Exhibit "C";
- F. The Notice Requirements attached hereto as Exhibit "D"; and
- G. The Security Arrangement Details attached hereto as Exhibit "E".

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.

Los Vientos Windpower I, LLC

B

By: B. Keith Trent

Title: President Los Vientos Windpower I, LLC

Date: 2-1-11

AEP Texas Central Company

ANS.

Mt

By: Michael Heyeck

Title: Vice President Date: 3/7/2000

# EXHIBIT "A"

# TERMS AND CONDITIONS OF THE INTERCONNECTION AGREEMENT

#### **ARTICLE 1. DEFINITIONS**

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

1.1 "<u>Affiliate</u>" shall mean any person or entity that controls, is controlled by or is under common control with the Party in question. For purposes of this definition, control shall mean direct or indirect ownership or control of a majority of the voting interests of an entity.

1.2 "<u>Agreement</u>" shall mean this Agreement, including all Exhibits or Appendices attached, and all amendments thereto.

1.3 "<u>Applicable Laws and Regulations</u>" shall mean all applicable federal, state, and local laws, ordinances, rules and regulations, and all duly promulgated orders and other duly authorized actions of any Governmental Authority having jurisdiction over the Parties and/or their respective facilities. Notwithstanding the foregoing, each Party shall have the right at its sole expense to contest the application of any Applicable Laws and Regulations to such Party before the appropriate authorities.

1.4 "<u>CCN</u>" shall mean a Certificate of Convenience and Necessity issued by the PUCT.

1.5 "<u>Commercial Operation</u>" shall mean the date on which Generator declares that the construction of the Plants has been substantially completed, Trial Operation of the Plants has been completed, and the Plants are ready for dispatch.

1.6 "<u>Control Area</u>" shall have the meaning ascribed thereto in Chapter 25 of the PUCT Rules.

1.7 "ERCOT" shall mean the Electric Reliability Council of Texas, Inc.

1.8 "<u>ERCOT Requirements</u>" means the ERCOT Operating Guides, ERCOT Metering Guidelines, ISO Generation Interconnection Procedures, ERCOT Protocols as well as any other documents adopted by the ISO or 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 Generator, and any

requirements imposed on transmission providers or transmission facilities shall become the responsibility of TSP.

1.9 "Facilities Study" shall have the meaning as described in Chapter 25 of the PUCT Rules.

1.10 "<u>Facilities Study Agreement</u>" shall mean the agreement executed by the Parties relating to the performance of the Facilities Study.

1.11 "FERC" shall mean the Federal Energy Regulatory Commission, or any successor thereto.

1.12 "GIF" shall mean Generator's interconnection facilities as described in Exhibit "C".

1.13 "<u>Good Utility Practice</u>" shall have the meaning described in Chapter 25 of the PUCT Rules.

1.14 "<u>Governmental Authority(ies)</u>" shall mean any federal, state, local or municipal body having jurisdiction over a Party.

1.15 "<u>In-Service Date</u>" shall be the date, as reflected in Exhibit "B", that the TIF will be ready to connect to the GIF.

1.16 "<u>ISO</u>" shall mean the ERCOT Independent System Operator.

1.17 "<u>Plant</u>" shall mean the electric generation facility that may be comprised of one or more turbine-generators and the collection circuits that connect to the GIF that are owned and operated by Generator, as specified in Exhibit "C".

1.18 "<u>Point of Interconnection</u>" 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.

1.19 "<u>Project Financing</u>" shall mean one or more loans and/or debt issues, together with all modifications, renewals, supplements, substitutions and replacements thereof, the proceeds of which are used to finance or refinance the costs of the Plants, any alteration, expansion or improvement to the Plants, the purchase and sale of the Plants or the operations at the Plants.

1.20 "<u>Project Financing Holder</u>" shall mean any holder, trustee or agent for holders, of any component of the Project Financing.

1.21 "<u>PUCT</u>" shall mean the Public Utility Commission of Texas.

1.22 "<u>PUCT Rules</u>" shall mean the Substantive Rules of the PUCT.

1.23 "<u>Reasonable Efforts</u>" shall mean the use of Good Utility Practice and the exercise of due diligence.

1.24 "<u>Regulatory Approvals</u>" shall mean all consents, approvals, certifications, filings, or orders that may be required by Applicable Laws and Regulations.

1.25 "<u>System Protection Equipment</u>" shall mean those facilities located within the TIF and the GIF as described in Section 5.6 and Exhibit "C".

1.26 "<u>System Security Study</u>" shall have the meaning as described in Chapter 25 of the PUCT Rules.

1.27 "<u>TCOS</u>" shall mean TSP's transmission cost of service as allowed by the applicable Governmental Authority.

1.28 "<u>TIF</u>" shall mean TSP's interconnection facilities as described in Paragraph 8 of Exhibit "C" to this Agreement.

1.29 "<u>Trial Operation</u>" shall mean the process by which Generator is engaged in on-site test operations and commissioning of the first turbine-generator of the Plants prior to Commercial Operation.

1.30 "<u>TSP</u>" shall mean Transmission Service Provider.

1.31 "<u>TSP System</u>" shall mean the electric transmission facilities, including the TIF and all associated equipment and facilities owned and/or operated by TSP.

#### **ARTICLE 2. TERMINATION**

2.1 <u>Termination Procedures</u>. This Agreement may be terminated as follows:

A. Generator may terminate this Agreement after giving TSP thirty (30) days advance written notice; or

B. TSP may terminate this Agreement (subject to Governmental Authority approval, if required) on written notice to Generator if one of Generator's Plants 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 <u>Termination Costs</u>. If a Party elects to terminate the Agreement pursuant to Section 2.1 above, 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 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 <u>Disconnection</u>. Upon termination of this Agreement, the Parties will disconnect the GIF from the TIF in accordance with Good Utility Practice and all Applicable Laws and Regulations.

### **ARTICLE 3. REGULATORY FILINGS**

3.1 <u>Filing</u>. TSP shall file this Agreement with the FERC (and provide a copy of the filing to the PUCT) within thirty (30) business days of the date first written above. Parties agree to assist one another and use all reasonable efforts in obtaining such approvals or making such filings as promptly as practicable. Any portions of this Agreement asserted by Generator to contain competitively sensitive commercial or financial information shall be filed by TSP identified as "confidential" under seal stating, for TSP's showing of good cause, that Generator asserts such information is confidential information and has requested such filing under seal. If requested by TSP, Generator shall provide TSP, in writing, with Generator's basis for asserting that the information referred to in this Section 3.1 is competitively sensitive information, and TSP may disclose such writing to the appropriate Governmental Authority.

3.2 <u>Regulatory Approvals</u>. Unless exempt, TSP shall timely request and obtain 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 <u>Options</u>. Generator shall select one of the following options (subsection A or subsection B) and include the selected option in Exhibit "B" for completion of the TIF:

A. TSP shall design, procure, and construct the TIF, using Reasonable Efforts to complete the TIF by the In-Service Date reflected in Exhibit "B". 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 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. 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 TSP reasonably expects that it will not be able to complete the TIF by the In-

Service Date, TSP will promptly provide written notice to Generator and will undertake Reasonable Efforts to meet the earliest date thereafter.

B. (i) 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 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 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 TSP fails to complete the TIF by the In-Service Date reflected in Exhibit "B", TSP shall pay Generator liquidated damages in accordance with this Section 4.1.B.

(ii) The Parties agree that actual damages to 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 TSP to Generator shall be an amount equal to ½ of 1% of the actual cost of the TIF, per day. However, in no event shall the total liquidated damages are less than Generator's actual damages. The Parties agree that such liquidated damages are less than Generator's actual damages. The Parties agree that the foregoing payments will be made by TSP to Generator as just compensation for the damages caused to 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) 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, Generator shall reimburse TSP for such costs in an amount not to exceed the difference between TSP's estimate of the cost of the TIF under section 4.1.A and 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 Generator is not ready to commence use of the TIF for the delivery of power to the Plants for Trial Operation or export of power from the Plants on the In-Service Date, unless Generator would have been able to commence use of the TIF for the delivery of power to the Plants for Trial Operation or export of power from the Plants but for TSP's delay.

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

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

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

C. Generator has provided security to TSP in accordance with Section 8.3.

TSP and Generator agree to work together to procure equipment in the most time and cost efficient manner. Should Generator procure equipment on behalf of the TSP, such equipment will be either specified by the TSP or approved by the TSP prior to procurement. Costs for such procurement shall be reimbursed by the TSP to the Generator upon the achievement of Commercial Operation or, if Commercial Operation is not achieved, the Parties will work

cooperatively to fashion a cost reimbursement arrangement based on the useful value of the procured equipment.

4.3 <u>Construction Commencement</u>. 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. TSP has received written authorization to proceed with construction from Generator by the date specified in Exhibit "B"; and

D. Generator has provided security to TSP in accordance with Section 8.3.

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

4.5 <u>Conditions Precedent Delay</u>. To the extent this Agreement incorporates a specified In-Service Date and Generator fails to satisfy conditions precedent under Sections 4.2, 4.3, or 4.5, as applicable, so that 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 and the Scheduled Commercial Operation Date shall be extended accordingly.

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

5.1 <u>Information Exchange</u>. 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 <u>GIF Construction</u>. 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 twenty (120) days after Commercial Operation, unless the Parties agree on another mutually acceptable deadline, Generator shall deliver to TSP the following "as-built" drawings, information and documents for the GIF: a one-line diagram, a site plan showing the Plants 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 Generator's main-

power transformers, the facilities connecting the Plants to the main power transformers and the GIF, 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 <u>TIF Construction</u>. 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 <u>Equipment Changes</u>. For facilities not described in Exhibit "C", if either Party makes equipment changes to the Plants, the GIF, the TIF or the TSP System which it knows will affect the operation or performance of the other Party's interconnection facilities or the Plants, 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 TSP. However, TSP shall provide 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. TSP will notify 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. 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 TSP, the Control Area in which the Plants and TSP are located and Generator. All acceptance tests will be performed consistent with ERCOT Requirements.

F. 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 TSP, that are necessary for the effective operation of the Plants and the GIF with the TSP System. Such communication facilities shall be included in Exhibit "C". 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. If a meter is found to be not in compliance with the accuracy standards required by ERCOT Requirements, readings for the prior six (6) months, or from the time the meter was in service since last tested, but not exceeding six (6) months, shall be corrected and adjusted bills shall be rendered.

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

A. Each Party will use Reasonable Efforts to design and operate its respective facilities such that they will 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. Each Party shall be responsible for protection of its facilities consistent with ERCOT Requirements and Good Utility Practice.

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 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 <u>No Annexation</u>. 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, the ERCOT Requirements, PUCT Rules and all Applicable Laws and Regulations. 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 the TIF or GIF as the case may be. 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. Each Party shall use commercially reasonable efforts to minimize the frequency and duration of any outages. 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 TSP, ERCOT, and Generator and will be conducted in accordance with ERCOT Requirements.

6.2 <u>Control Area Notification</u>. At least three (3) months before Trial Operation, Generator shall notify TSP and the Control Area, in accordance with ERCOT Requirements. The Parties will diligently cooperate with one another to enable this Agreement to be implemented on a schedule necessary to meet the Trial Operation date specified in Exhibit "B".

6.3 <u>Land Rights and Easements.</u> Terms and conditions addressing the rights of TSP and 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 <u>Service Interruption</u>. The Parties recognize that the interruption of service provisions of the PUCT Rules give TSP the right to disconnect the TSP System from the Plants under the conditions specified therein. Not withstanding the PUCT Rules to the contrary, TSP will not disconnect the TSP System from the Plants unless required by Good Utility Practices or by PUCT Rules. In the event of such interruption of service, TSP shall provide prompt notice to Generator of cause of such interruption and an estimation of when the Plants will be reconnected to the TSP.

Generator will promptly disconnect the Plants from the TSP System when required by and in accordance with the PUCT Rules and ERCOT Requirements. The TSP shall use commercially reasonable efforts to minimize the frequency and duration of any service interruptions. The Parties acknowledge and agree that Generator shall have no liability to TSP, its Affiliates,

subcontractors, and customers for disconnecting the Plants from the TSP when required by and in accordance with the PUCT Rules, ERCOT Requirements or Applicable Laws and Regulations.

6.5 <u>Switching and Clearance.</u>

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 ERCQT Requirements that may have specific application to the Plants shall be addressed in Exhibit "C".

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

6.7 <u>Routine Operational Communications.</u> On a timely basis, the Parties shall exchange all information necessary to comply with ERCOT Requirements, and shall otherwise reasonably cooperate with each other.

6.8 <u>Blackstart Operations</u>. If the Plants are 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 TSP's Blackstart Plan on file with the ISO. Notwithstanding this section, Generator is not required to have blackstart capability by virtue of this Agreement. If Generator will have blackstart capability, then Generator shall provide and maintain an emergency communication system that will interface with TSP during a blackstart condition.

# **ARTICLE 7. DATA REQUIREMENTS**

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

7.3 <u>Initial Data Submission by Generator</u>. The initial data submission by Generator, including manufacturer data, shall occur no later than one-hundred twenty (120) days prior to the Trial Operation and shall include a completed copy of the following forms contained in the ISO's 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, Generator will work with an ISO designated consultant to develop and supply a standard model and associated data.

7.4 <u>Data Supplementation</u>. 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, Generator shall provide TSP any data changes due to equipment replacement, repair, or adjustment. TSP shall provide 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 <u>Data Exchange</u>. 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 Plants or TSP 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. Generator will acquire, construct, operate, test, maintain, and own the Plants and the GIF at its sole expense.

B. In addition, Generator may be required to make a contribution in aid of construction payment to TSP in the amount set out for certain TIF described in Exhibit "C", if any, in accordance with PUCT Rules. Such cost will include salaries and wages, including overheads and benefits for TSP personnel, the cost of subcontractors selected by TSP for engineering and construction, and the cost of equipment and materials. Generator agrees to reimburse TSP, if required by PUCT Rules, for any federal income tax gross up amount that may be due as a result of such payment by Generator to TSP if TSP is required by Applicable Laws

and Regulations to pay federal income tax on this receipt. Generator shall not be responsible for any interest and/or penalties associated with any future gross up requirements.

C. Upon the achievement of Commercial Operation, the TSP will provide the Generator with an invoice(s) for the actual costs of Section 8.1 (B) above. Generator agrees to reimburse TSP for all costs required to be paid by PUCT Rules within thirty (30) days of receipt of an invoice(s) therefore. At Generator's request, TSP will provide Generator with supporting documentation and will permit Generator to examine during normal business hours at TSP's office in Tulsa, Oklahoma, relevant books and records reasonably necessary for Generator to verify costs which have been invoiced to Generator.

8.2 <u>TSP's Cost Responsibility.</u> 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. TSP requires 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 as described in Exhibit "C", Section 8. The required security arrangements shall be specified in Exhibit "E". Within five (5) business days after a Plant achieves Commercial Operation, TSP shall return the deposit(s) or security arrangements to Generator. However, TSP may retain an amount to cover the incremental difference between 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 a Plant has not achieved Commercial Operation within one (1) year after the scheduled Commercial Operation date identified in Exhibit "B" or if Generator terminates this Agreement in accordance with Section 2.1 and the TIF are not required, 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 that specifically relate to Generator's facilities, including the Plants as described Exhibit "C", Section 8. 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 coverage's, with insurers authorized to do business in Texas:

A. <u>Employers Liability and Worker's Compensation Insurance</u> 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. <u>Commercial General Liability Insurance</u> 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. <u>Comprehensive Automobile Liability Insurance</u> for coverage of owned, nonowned 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. <u>Excess Public Liability Insurance</u> 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 polices shall name the other Party, its parent, associated and affiliated companies and their respective directors, officers, agents, servants and employees ("Other Party Group") as an 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 and 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 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 <u>No Other Services.</u> This Agreement is applicable only to the interconnection of the Plants 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 <u>Entire Agreement</u>. 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 <u>Notices</u>. 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 "<u>Default</u>" 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 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 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. A defaulting Party may not recover monies from a non-defaulting Party unless such recovery is permitted under applicable law or equity. The provisions of this Section will survive termination of this Agreement.

10.7 Intrastate Operation. The operation of the Plants 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 TSP the right to immediately disconnect the TIF from the GIF, until such interconnection has been disconnected. Generator will not be prohibited by this Section from interconnecting the Plants 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 <u>No Third Party Beneficiaries</u>. 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 <u>No Waiver</u>. 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 Generator shall not constitute a waiver of Generator's legal rights to obtain an interconnection from TSP under a new interconnection agreement. 10.10 <u>Headings</u>. 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 <u>Multiple Counterparts.</u> 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 <u>Amendment</u>. 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 <u>No Partnership</u>. 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, TSP shall, at Generator's expense, when reasonably requested to do so by 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 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 Generator under a proposed loan agreement. TSP will use commercially reasonable efforts to obtain any opinion of counsel reasonably requested by Generator, but TSP shall not be in Default of any obligation under this Agreement if TSP is unable to provide an opinion of counsel that will satisfy any potential lender to 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 <u>Indemnification and Liability</u>. The indemnification and liability provisions of the PUCT Rule 25.202(b)(2) or its successor shall govern this Agreement.

10.16 <u>Consequential Damages</u>. 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 <u>Assignment</u>. This Agreement may be assigned by either Party only with the written consent of the other which consent won't be unreasonably withheld or delayed; 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 or to any transmission service provider with the legal authority and operational ability to satisfy the obligations of the assigning Party under this Agreement; and provided further that Generator shall have the right to assign this Agreement, without the consent of TSP, for collateral security purposes to aid in providing financing for the Plants, provided that Generator will require any secured party, trustee or mortgagee to notify TSP of any such assignment. Any financing arrangement entered into by 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 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 <u>Lender Security.</u> TSP agrees, if requested by Generator, to enter into an agreement (in a form reasonably acceptable to TSP) with the Project Financing Holders, pursuant to which TSP will acknowledge the creation of security over Generator's rights under this Agreement and agree that, upon breach of this Agreement or breach of any loan documents by Generator or the insolvency of Generator, the Project Financing Holder shall:

(a) have the right within a reasonable period of time as specified therein to cure any breach of this Agreement complained of, provided the Project Financing Holder agrees to perform Generator's obligations under the Agreement during the cure period; and

(b) have the right, upon payment of all outstanding amounts due and payable to TSP, to assume all the rights and obligations of Generator under this Agreement.

10.19 <u>Severability</u>. 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 Generator (or any third-party, but only if such third-party is not acting at the direction of 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.

10.20 <u>Comparability</u>. The Parties will comply with all applicable comparability and code of conduct laws, rules and regulations, as amended from time to time.

10.21 <u>Invoicing and Payment</u>. 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".

#### 10.22 Confidentiality.

Subject to the exception in Section 10.22.B, any information that a Party claims is A. 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

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

Effective Date of this Agreement

.

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

Effective Date of this Agreement

In-Service Date:

<u>Eighteen (18)</u> months from the Effective Date of this Agreement (subject to the availability to obtain transmission line clearance(s) to complete the work) and conditions of Sections 4.2 and 4.3 of Exhibit "A" hereof are met

Scheduled Trial Operation Date:

September 30, 2012

Scheduled Commercial Operation Date (subject to extension due to a Force Majeure event):

December 31, 2012

Due to the nature of the subject of this Agreement, TSP may change the In-Service Date and Generator may change the Scheduled Trial Operation Date and Scheduled Commercial Operation Date, provided the party requesting the change is using Reasonable Efforts to meet its applicable milestone date.

## EXHIBIT "C"

# **INTERCONNECTION DETAILS**

# 1. Station Names: ThePalm (West Substation) and Trees (East Substation)

- 2. Location: The ThePalm and Trees Substations (hereinafter individually referred to as "<u>Substation</u>," and collectively referred to as "<u>Substations</u>") are located in Cameron County, Texas. The ThePalm Substation is located approximately 10 miles north of the City of Harlingen, near the intersection of FM-1018 E and FM-507. The Trees Substation is located approximately 13.5 miles northeast of the City of Harlingen, near the intersection of FM-1018 E and FM-1420. The single Point of Interconnection for both Substations is located at the deadend transmission structure inside the Rio Hondo substation that terminates the 138 kV transmission line from the two (2) Substations. See Exhibit "C-1". Specifically, the Point of Interconnection is located where the conductors from the Rio Hondo substation equipment connect to the 138 kV transmission line.
- **3. Delivery Voltage:** 138 kV
- 4. Number and size of Generating Units: Nominal 400 MW capacity comprising of two (2) 200 MW Plants, each with 111 units @ 1.8 MW
- 5. Type of Generating Units: Vestas WTG V100 1.8MW

# 6. Metering and Supervisory Control and Data Acquisition ("<u>SCADA</u>") Equipment:

a) The ERCOT Polled Settlement ("<u>EPS</u>") metering equipment described below will be procured, paid for, owned and installed by TSP inside the Rio Hondo substation.

i) one (1) 138 kV meter panel with one primary meter and one backup 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 Substations.

i) two (2) remote terminal units ("<u>RTU</u>s"), one in each Substation, including associated interface equipment

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

- i) The transfer of power between the TIF and the GIF shall be read as if metered at the Point of Interconnection with bi-directional metering. Backfeed power from the TSP System to the Plants 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. If there is more than one Point of Interconnection (e.g., two (2) lines), independent bi-directional metering is required on each interconnecting circuit.
- 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 metering equipment, the following information can be provided to Generator at the Point of Interconnection. If not available from the TSP metering equipment, the "MWh Out", "MWh In", "MVARh Out", "MVARh In", +/- MW and +/- MVAR data can be provided to Generator at Generator's expense. If requested by Generator, MW and MVAR transducers shall be 3-element transducers with an accuracy of ±0.2% or better.
- iv) All affected parties shall be involved in engineering changes of interconnect metering equipment from project inception. All parties must be notified so a mutually agreeable time can be set for the changes. All parties involved must be satisfied to the making of any changes.
- v) Metering and operation personnel of all affected 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 all involved parties.

# 7. Generator Interconnection Facilities:

- a) GIF include the following:
  - i) the Substations and all facilities within them, except for those facilities identified as being owned by TSP in Section 6 above and Section 8 below
  - the 138 kV transmission line, including structures, conductors, insulators, connecting hardware and optical ground wire ("<u>OPGW</u>") from the two (2) Substations to the Point of Interconnection
  - iii) communication equipment described in Section 9a below

# 8. Transmission Service Provider Interconnection Facilities:

a) 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) two (2) station data repositories ("<u>SDR</u>s"), one in each Substation, including associated recording equipment as described in Section 10 below
- iii) communication equipment described in Section 9b below
- iv) 138 kV equipment at Rio Hondo substation to terminate the 138 kV Los Vientos transmission line

# 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 dispatch office and Generator's control center, including associated interface equipment at Generator's control center
- ii) one (1) RTU communications circuit between the Trees Substation and TSP's master SCADA system at TSP's Corpus Christi dispatch office
- iii) one (1) RTU communications circuit between the ThePalm Substation and TSP's master SCADA system at TSP's Corpus Christi dispatch office
- iv) one (1) telephone company interface box (demarcation equipment) at the Trees Substation for demarcation of telephone company circuits
- v) one (1) telephone company interface box (demarcation equipment) at the ThePalm Substation for demarcation of telephone company circuits
- vi) high voltage isolation equipment for all telephone company circuits at the Trees Substation
- vii) high voltage isolation equipment for all telephone company circuits at the ThePalm 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 the ERCOT Requirements, the ERCOT Requirements shall govern.

- i) Generator shall be responsible for confirming with TSP the projectspecific 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 or other media satisfactory to TSP. For each telephone company circuit leased Generator, Generator shall provide by 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 the Generator's expense, to maintain circuit reliability. The communication circuits described here shall be operational and commissioned by TSP prior to TSP providing a continuous power source to the interconnection facility. 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 Generator's Substation to the TSP dispatch office. This circuit is to be ordered and paid for by Generator. One circuit is required for each RTU. This circuit will be utilized by TSP to communicate with the RTU and, if applicable, the station data repository. The required circuit is a 56 Kbps point-to-point-protocol or frame relay circuit with DDS interface at the RTU end and DDS interface at the TSP dispatch office end.
  - 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 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. The required circuit is a fractional T1 or a Bell 420.
  - 3) Dial-up circuit This is a standard business telephone line (with a 10-digit telephone number) with long distance provisioning to be ordered and paid for by Generator. The requirement for one or more dial-up circuits will be determined by TSP on a project-specific basis. This circuit may be required for interconnect meter

reading and system protection equipment interrogation. If the interconnect metering and system protection equipment are located at multiple sites, then multiple dial-up circuits may be required. If these devices are located at the same site, one dial-up circuit may suffice for dial-up access. If approved by TSP, Generator may install a telephone switch to share one dial-up circuit among multiple devices.

- ii) For all telephone company circuits leased into Generator's Substations, the demark satisfactory to TSP shall be installed, owned and maintained by Generator at each of Generator's two Substations. The demark shall house all telephone company circuit termination equipment and provide the interface between the telephone company's service cable and the Generator shall provide 120 VAC power to the demark Substation. 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 from 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 each 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 providing a continuous power source to the interconnection facility.
- iii) Prior to construction of high voltage isolation ("<u>HVI</u>") facilities at each of Generator's two (2) Substations, 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. HVI requirements at each of Generator's Substations are based upon the following conditions:
  - 1) All-dielectric fiber optic service cable If the telephone company installs fiber optic cable to serve Generator's Substation, the fiber optic cable and its installation shall meet the following criteria.

The telephone company shall install and maintain all-dielectric fiber optic service cable to the demark located on the Generator's Substation ground grid. Armored fiber optic cable shall not be installed within the ground potential rise ("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 alldielectric fiber optic service design shall accommodate twenty-four (24) hour per day accessibility by TSP personnel without escort from telephone company personnel, Generator personnel, facility operator or landowners. 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 personnel, facility operator or landowners.

HVI equipment for copper cable - If required by the telephone company, HVI equipment for all telephone company circuits carried on copper cable to Generator's Substation demark shall be installed and maintained by Generator; otherwise, HVI equipment for copper cable is not required. 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 from 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 personnel, 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 personnel, facility operator or landowners.

The HVI facilities described above shall be operational and commissioned by TSP prior to TSP providing a continuous power source to the interconnection facility.

iv) Generator shall provide an access plan for each of Generator's two (2)
Substations to TSP for review and approval. Such access plan is to
document Generator, TSP and telephone company personnel access

2)

privileges and restrictions to the RTU, station data repository, metering equipment, telephone company interface box (demarcation equipment), high voltage isolation equipment and fiber optic equipment.

- v) If GIF includes fiber optic cable, including, but not limited to OPGW, alldielectric 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 Substations 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 fiber distribution panel ("FDP"). If the GIF include fiber optic cable that contains no metallic members, it may be extended into each Substation control building without transitioning to the all-dielectric fiber optic station entrance cable noted above. The Generator shall, at its cost, at its Substations, perform splicing of all fibers in the transition splice and the FDP. TSP shall, at the Generator's expense, engineer, furnish, and install at TSP's substation the all-dielectric fiber optic station entrance cable system to be owned by the Generator, and shall perform splicing of all fibers in the transition splice and the FDP. The 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 at the Point of Interconnection and the last twelve (12) fibers in the fiber optic cable at each of the Generator's two Substations. The Generator, at its sole expense, will maintain in operating condition such fiber optic cable and associated station entrance cable systems at the Generator's Substations and TSP's substation. In addition, Generator hereby grants to TSP the following rights:
  - 1) the right to co-locate fiber optic equipment in the Substations
  - 2) access to and use of all TSP-assigned fibers FDP to FDP
  - access to and use of all route splice points, with the right to crossconnect 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 Generator's Substations 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 Generator's Substations and TSP's substation.

vi) Fiber optic cable with metallic members shall not be terminated in or routed through any Substation control building, telephone company interface box, or 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 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.

### **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 the ERCOT Requirements, the ERCOT Requirements shall govern.

- i) TSP assumes no responsibility for the protection of the Plants 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 Plants and GIF.
- ii) It is the sole responsibility of Generator to protect its Plants 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 Plants 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 Plants and GIF for any of the following reasons:
  - 1) The Plants or GIF, upon TSP's determination, cause objectionable interference with other customers' service or with the secure operation of the TSP System.
  - 2) The Plants' output as determined by TSP exceeds the operating boundaries outlined above.
  - 3) The 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 the TSP's source breakers trip and isolate the Plants and GIF, Generator shall insure that the Plants and GIF are disconnected from the TSP circuit prior to automatic reclosure by TSP. Automatic reclosing out-of-phase with the Plants may cause damage to Generator's equipment. The Generator is solely responsible for the protection of his equipment from automatic reclosing by TSP.
- For disturbance monitoring of the Generator's facilities, TSP requires a v) combination of SDR points and event recordings. SDR points are collected by TSP's SDRs. Event recordings are to be supplied to TSP by Generator from Generator's equipment. Each 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) generator 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 ("IED"), monitors the 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 the Generator shall be responsible for providing TSP with one-line diagrams of the Generator's facilities.
- vi) For thermal powered generation, Generator will be required, upon request by TSP, to provide event recordings per generation unit in a format satisfactory to TSP. For all other generation, Generator will be required, upon request by TSP, 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 requirement of TSP does not reduce the Generator's obligation to meet all disturbance monitoring requirements of NERC.
- vii) 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 is required at each Plant 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 each RTU. For each RTU, Generator shall provide a dedicated Substation DC breaker and cable sourced from a minimum 8-hour Substation battery.

b) Prior to TSP providing a continuous power source to the Plants and GIF, the transmission-specific RTU and the generation-specific RTUs 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 capacities, for each Point of Interconnection and connected to TSP's recording equipment and the transmissionspecific RTU used for the transmission interconnection. If there is a conflict between the TSP requirements below and the ERCOT Requirements, the ERCOT Requirements shall govern. Except where specified as hardwired, RTU inputs shall be supplied from an IED, from a TSP-approved interface device, or hardwired. RTU inputs from an IED or 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 Generatorowned transmission line)
  - 2) Transmission line lockout relay operated
  - 3) Transmission line lockout relay failure
  - 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.
- 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 50 MVA, a generation-specific RTU is required at the each 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 the 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 each Plant:

i) Control Points – The following RTU inputs shall be hardwired.

- 1) Trip (required for one or more generation or transmission line breakers to allow TSP to trip the Plant during system emergencies)
- Status Points Except where specified as hardwired, the following RTU inputs shall be supplied from an IED, from a TSP-approved interface device, or hardwired. RTU inputs from an IED or 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) Voltage control status (required for each dynamic reactive controller)
  - 9) Power factor control status (required for each dynamic reactive controller)
  - 10) Shunt device (capacitor and reactor) breaker/switch status

- 11) Supervisory cutoff (hardwired for each breaker where trip control is required)
- 12) Breaker failure lockout status (hardwired for each breaker where trip control is required)
- 13) Breaker critical alarm (required for each breaker where trip control is required, combine critical alarms for each breaker)
- 14) Transformer critical alarm (combine critical alarms for each transformer)
- 15) Transformer primary lockout relay operated
- 16) Transformer primary lockout relay failure
- 17) Transformer backup lockout relay operated
- 18) Transformer backup lockout relay failure
- 19) Generation unit automatic voltage regulator ("<u>AVR</u>") status
- 20) Black start availability
- Analog Points The following RTU inputs shall be supplied from an IED, from a TSP-approved interface device, or hardwired. RTU inputs from an IED or 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 (bidirectional 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)
  - 17) Tap position for each power transformer
  - 18) Dynamic MVAR capability at the current MW generation amount
  - 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 the ERCOT Requirements, in which case the ERCOT Requirements shall govern. Such ERCOT Requirements include, but are not limited to ERCOT Protocols sections 1.3.1, 6.57, 6.7.6, 6.10.3, 12.2, and 12.3; ERCOT Operating Guides sections 2.2.4, 2.10, 3.1.4, and 7.2.2; ERCOT Operations Procedure Steady-State Voltage Control Procedures; and ERCOT Nodal Operating Guide 2.2.6 Power System Stabilizers.

Each Party shall be consulted during the planning and design process of the a) Plants, 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 recognized industry standards and all applicable laws, rules and regulations, and is intended to be used solely in connection with the construction of the Plants, 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 may provide its contractors with copies of the engineering and design work of the other Party in connection with the construction of the Plants, GIF and TIF, provided that i) the Party's contractor agrees in writing that the engineering and design work is intended to be used solely in connection with the construction of the Plants, GIF and TIF, and ii) the Party's contractor shall not make use of any aspect of the engineering and design work on any other projects without the prior written consent of the other Party. Each Party agrees to obtain the written agreement of such contractors prior to providing them with the engineering and design work and to promptly provide the other Party with a copy of that agreement.

b) 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.

c) 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 which affect the TSP System. To aid the 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 name or designation, nominal kVA, nominal primary, secondary, tertiary voltages, vector diagram showing winding connections, tap setting and transformer impedance impedances (transformer test report showing the positive sequence, zero sequence, test voltages and MVA base for each winding).
- 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
- 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
- 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.
- potential and current elementary drawings associated with the protection and control schemes for the Plants and GIF and control elementary drawings of the Plants 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 shall be 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 are to be 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 shall be 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) should be 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", but manufacturer's instruction book number shall be 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
- iii) transformer nameplate and test report

d) Generator may not commence parallel operation of the Plants 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.

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

i) Voltage - The Plants and GIF shall not cause excessive voltage excursions. Generator shall operate its Plants and GIF in such manner that the voltage levels on the TSP System are in the same range as if the Plants and GIF were not connected to the TSP System. Generator shall provide an automatic method of disconnecting its Plants and GIF from the TIF to protect against excessive voltage excursions.

- Flicker The Plants 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 Plants shall not deviate from the frequency of the TSP System. Plants under frequency relays shall be set the same as TSP's under frequency relays, so that the Plants will not separate from the TSP System during under frequency conditions until all of TSP's under frequency load shedding equipment has operated. Generator will provide settings prior to commercial operation.
- iv) Harmonics, Telephone Interference, and Carrier Interference The Plants 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 Plants 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 Plants 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 as described in Protocols 6.5.7 and 6.5.7.1 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. The TSP will not execute the Interconnection Agreement until the Generator has provided the TSP with documentation that the ERCOT Requirement has been met.
  - 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 an over-excited (lagging) power factor Power requirements: capability of ninety-five hundredths (0.95) or less and an underexcited (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 System.
- 3. Other 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 underexcited (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.
- viii) The dynamic MVAR capability at the current MW generation amount shall be provided in real time. If this dynamic MVAR capability is not available in real time, a dynamic capability curve plotted as a function of MW output shall be provided. The shunt static reactive available, but not in service, shall be provided in sufficient detail to determine the amount of dynamic and static reactive reserve available.

- ix) Excitation System and Automatic Voltage Regulation - A Plant excitation system response ratio shall not be less than 0.5 (five-tenths). It shall conform, as near as achievable, to the field voltage vs. time criteria specified in American National Standards Institute Standard C50.13-1989 in order to permit adequate field forcing during transient conditions. A power system stabilizer ("PSS") shall be installed on each new generating unit to be interconnected unless specifically exempted from this requirement by ERCOT. The Generator shall determine the PSS settings to dampen local area modes with oscillations within the range of .2 Hz to 2 Hz. The PSS settings shall be tested and tuned for adequate damping during PSS commissioning. Final PSS settings shall be provided to ERCOT and TSP within thirty (30) days of commissioning. The PSS shall be kept in service and maintained in working order throughout the service life of the Plants. Wind farms are induction in nature and are exempt from the PSS requirement. Each generator's exciter and exciter controls shall have a ride-through capability for significant system voltage disturbances (i.e., utilize UPS or DC design). Generator shall maintain the AVR of each generating unit in service and operable at all times. If the AVR is removed from service for maintenance or repair, TSP shall be notified.
- Governor System Plant governors shall be able to respond to interconnection frequency deviations and help return interconnection frequency to normal following an upset on the ERCOT system to assist in maintaining interconnection stability.
- xi) Sub-Synchronous Resonance ("<u>SSR</u>") and Sub-Synchronous Interaction ("<u>SSI</u>") Induction generation placed near series capacitor banks on the TSP system may be susceptible to SSR. Wind turbine control systems may be a source of synchronous oscillations near series capacitor banks resulting in SSI. Generator will provide studies that document that SSR or SSI issues have been addressed prior to commercial operation. TSP will work with Generator and their selected turbine manufacturer on any system data required for such studies.

f) Generator shall not energize a de-energized TIF circuit, unless under direction of TSP. The line switch should have dual locks to allow Generator and TSP to lock it for clearances.

g) Generator shall maintain an operating log at each generating unit at the Plants that at a minimum will indicate changes in operating status (available or unavailable), maintenance outages, trip indications or other unusual conditions found upon inspection. For generators that are "block-loaded" to a specific MW level, changes in this setting shall also be logged. TSP may waive this requirement at its discretion. Reliability information, as required by ERCOT Requirements, will be maintained by Generator.

h) TSP considers the energy and power that the Plants and GIF may from time to time consume from the transmission grid through the Point of Interconnection to be a

retail transaction and as such, TSP does not intend to be the provider of this retail service. Generator shall make necessary arrangements with the appropriate retail supplier for the energy and power that the Plants and GIF may consume from the transmission grid through the Point of Interconnection.

i) Generator shall notify TSP in writing as to which initial ERCOT Qualified Scheduling Entity the Plants will be scheduling through and any changes made thereafter.

j) Upon written request from TSP, Generator shall supply notification to TSP identifying their retail service provider.

k) Upon written request from either Party, the other Party shall provide the requesting Party any necessary land easements required for the construction, operation, and maintenance of the Plants, TIF, or GIF at no cost to the requesting Party.

1) Generator shall use Reasonable Efforts to change the GIF as may be reasonably required by TSP to meet future changes in the TSP System. Generator shall be given reasonable notice by TSP prior to the date that any such required change in the GIF must be made.

m) If this Agreement is executed prior to any required ERCOT approval of the TIF and ERCOT does not approve the TIF, Generator and TSP will work together to mitigate as much as possible the impact of such ERCOT decision.

n) TSP will submit to ERCOT a request for Regional Planning Group (RPG) processing and an ERCOT independent economic analysis for transmission projects greater than Twenty-five Million Dollars (\$25,000,000).

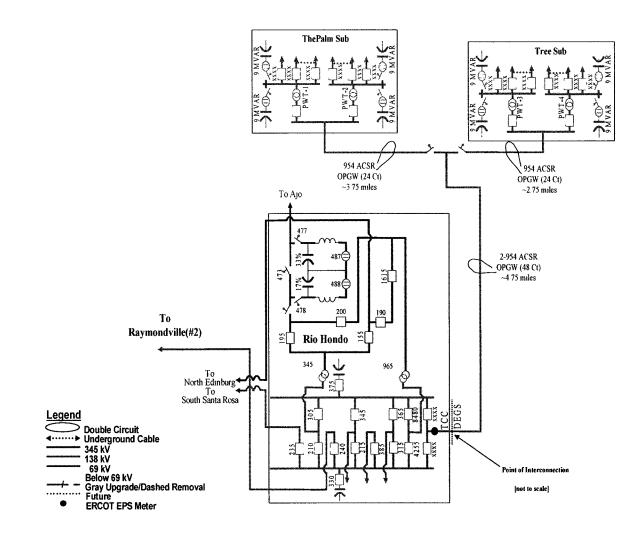
## **13.** Special Operating Terms and Conditions:

a) For thermal powered generation, the Generator will provide TSP at least thirty (30) minutes prior notice before coming on line or off line so TSP can adjust reactive resources.

b) For wind powered generation greater than 50 MW, the Generator shall notify TSP with at least thirty (30) minutes in advance anytime the reactive capability is expected to deviate by more than 10% from the reactive capability curves provided in accordance with Section 12 (e)(vii) above or anytime the Generator expects generation rate changes greater than 25 MW per minute.

# EXHIBIT "C-1"

## Conceptual One-Line Drawing of Point of Interconnection



# EXHIBIT "D"

# NOTICE INFORMATION OF THE INTERCONNECTION AGREEMENT

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(a) All notices of an operational nature shall be in writing and/or may be sent between the Parties via electronic means including facsimile as follows:

· · · · · · · · · · · · · · · · · · ·	If to Generator:	If to Transmission Service Provider:	
Company Name:	Los Vientos Windpower I, LLC	American Electric Power Service Corp.	
Attn:	Jason Allen	Manager, Transmission Dispatching	
Address:	400 South Tryon Street	5502 Corporate Dr	
City, State, Zip:	Charlotte, North Carolina, 28285	Corpus Christi, TX 78403	
24 Hour Phone:	(704) 382- 1520	(361) 289-4003	
E-mail:	jason.allen@duke-energy.com	dkkunkel@aep.com	

### (b) Notices of an administrative nature:

	If to Generator:	If to Transmission Service Provider:	
Company Name:	Los Vientos Windpower I, LLC	American Electric Power Service Corp.	
Attn:	Theodore D Matula	Manager, Transmission & Interconnection Services	
Address:	7000 North Mopac, Suite 475	212 E. 6th St	
City, State, Zip:	Austin, Texas, 78731	Tulsa, OK 74119	
Fax:	(512) 241-0507	(918) 594-3579	
Phone:	(512) 241-0243	(918) 599-2723	
E-mail:	theodore.matula@duke -energy.com	rlpennybaker@aep.com	

## (c) Notice for statement and billing purposes:

	If to Generator:	If to Transmission Service Provider:	
Company Name:	Los Vientos Windpower I, LLC	American Electric Power Service Corp.	
Attn:	Jamie Arovits	Accounts Receivable	
Address:	139 E. 4th St., mail drop EA 502	301 Cleveland Ave SW	
City, State, Zip:	Cincinnati, Ohio 45202	Canton, OH 44702	

#### (d) Information concerning Electronic Funds Transfers:

	If to Generator:	If to Transmission Service Provider:
Bank Name:	PNC Bank	Citibank NA

City, State:	249 5 <sup>th</sup> Ave., 1 PNC Plaza, Pittsburg, New Castle, DE	
-	PA 15222	
ABA No.	042000398	021000089
for credit to	Duke Energy Generation Service	AEP Texas Central Company
Account No.	400365227	30484552

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# EXHIBIT "E" SECURITY ARRANGEMENT DETAILS

1. As a condition to TSP's obligation to plan, license, engineer, design, procure equipment and materials, and construct the TIF described in Section 8 of Exhibit "C", Generator will provide a financial security ("<u>Security</u>") either as one (1) letter of credit ("<u>LC</u>"), corporate guaranty or other form of collateral security reasonably acceptable to TSP in an amount totaling <u>Three Million Five Hundred Thousand Dollars (\$3,500,000)</u>, as required pursuant to Section 8.3 of this Agreement. Such Security shall be provided by the dates and in the amounts set forth in the following schedule:

Date Due	Amount
Within ten (10) business days after the Effective Date of this Agreement	\$700,000
Within six (6) months after the Effective Date of this Agreement	\$1,800,000
Within twelve (12) months after the Effective Date of this Agreement	\$1,000,000

2. Depending upon the creditworthiness of Generator, a corporate guaranty may or may not be acceptable Security. If Generator chooses to provide a corporate guaranty, it shall provide any financial reports requested by TSP. If creditworthiness of Generator is acceptable to TSP, the corporate guaranty shall be in a form similar to that shown in Exhibit "E-1" or, if in a form not similar to that shown in Exhibit "E-1", in a form acceptable to TSP.

3. LC means one or more irrevocable, transferable standby letters of credit issued by a U.S. commercial bank or a foreign bank with a U.S. branch that has a credit rating of at least A- from Standard and Poor's or an A3 credit rating from Moody's Investors Services and will maintain an LC with a bank having such credit rating for the entire period that the LC is in effect. TSP reserves the right to request multiple LC providers, depending on the amount of security required. It shall be in a form substantially similar to that shown in Exhibit "E-2" or, if not in a form similar to that shown in Exhibit "E-2", in a form acceptable to TSP. Such LC shall state that it is issued in favor of TSP and not expire prior to one (1) year beyond the Commercial Operation Date indicated in Exhibit "B". Costs of the LC shall be borne by the applicant for such LC.

4. Upon receipt of Security, TSP will promptly proceed with the work required to meet the In-Service Date.