

**PASTORIA ENERGY FACILITY, LLC -
SOUTHERN CALIFORNIA EDISON COMPANY
TRANSMISSION OWNER TARIFF
FACILITIES STUDY AGREEMENT
(Pastoria Expansion Project)**

DOCKET 05-AFC-1
DATE AUG 19 2005
RECD. AUG 22 2005

1. **Summary:** Pastoria Energy Facility, LLC (“PEF”) applied to the California Independent System Operator (“ISO”) for interconnection pursuant to Section 5.7 of the ISO Tariff. PEF proposes to construct an additional 158 MW gas turbine generator at its existing Pastoria Energy Facility located in Lebec, California (“Pastoria Expansion Project”), interconnect the Pastoria Expansion Project to Southern California Edison Company’s (“SCE”) Pastoria Substation and transmit Energy and/or Ancillary Services to the ISO Controlled Grid. SCE performed a System Impact Study for PEF. The results of that study were published in a report transmitted to PEF on June 8, 2005, titled “Pastoria Energy Facility, LLC - Pastoria Addition System Impact Study”. The System Impact Study results indicated the need for a Facilities Study (“Study”) due to the facilities, equipment modifications or additions which may be required. Accordingly, SCE and PEF wish to enter into this Facilities Study Agreement (“Agreement”) providing the terms for SCE to perform a Study to determine required transmission system upgrades, modifications or additions, and any other required modifications or additions needed to accommodate PEF's request.
2. **Definitions:** All terms with initial capitalization not otherwise defined herein shall have the meanings assigned to them in the TO Tariff.
3. **Scope:** The Study will include the following scope of work:
 - a. SCE will determine if PEF’s postponement of the Pastoria Expansion Project in-service date to May 2007 changes the results of the System Impact Study transmitted to PEF on June 8, 2005. The load assumptions will be modified to conform to the current load forecast assumptions being utilized in the 2005 CAISO Controlled SCE Expansion Program.
 - b. SCE will determine and develop cost estimates for any additional facilities required at Pastoria Substation to interconnect the Pastoria Expansion Project,

including but not limited to, switchyard facilities, relay protection, and real-time telemetry.

- c. SCE will investigate the feasibility of and develop the cost estimates for a new 230kV transmission line from Pastoria Substation to Pardee Substation.
- d. SCE will perform a technical assessment that assumes the following upgrades are in service in order to determine if sufficient capacity is made available with such upgrades in place: i) rebuild the existing Antelope-Mesa 230kV Transmission Line with 500kV single-circuit construction standards between Antelope and Rio Hondo substations, and 230kV double-circuit construction standards with a single bundled 1590 ACSR conductor between Rio Hondo and Mesa substations; ii) rebuild the Antelope-Magunden No. 2 230kV Transmission Line south of the proposed Cottonwind 230kV substation with bundled 1590 ACSR conductor; iii) new 230 kV transmission line from Pastoria to Pardee; and iv) Path 26 upgraded to 4,000 MW rating (recent WECC Path increase).
- e. If the above technical assessment continues to identify thermal overload conditions on the Pastoria-Pardee-Warne 230 kV Transmission Line under base case, single outage, or double outage conditions, the following scope of work will be added and the additional upgrades will be assumed in service for further evaluation:
 - i. SCE will investigate the feasibility of and develop the cost estimates for reconductoring the existing Pastoria-Pardee-Warne 230kV Transmission Line with new ACSS/TW class conductor (similar in size to the existing 1033 ACSR) to avoid a tear-down and rebuild of the existing tower structures.
 - ii. If reconductoring with new ACSS/TW class conductor (similar in size to the existing 1033 ACSR) is not feasible, SCE will develop the cost estimates for the tear-down and rebuild of the Pastoria-Pardee-Warne 230kV transmission line with bundled 1590 ACSR conductor.
- f. If the technical assessment in item 3d identifies that operating the new Antelope-Rio Hondo 500kV facilities at 230kV is insufficient, then SCE will perform additional studies to reevaluate that portion of the system operating at 500kV.
- g. SCE will determine if a Special Protection Scheme (SPS) can be utilized to mitigate any remaining single and double contingency overloads. If an SPS is

feasible, then SCE will identify the necessary protection requirements and develop the associated cost estimates. If an SPS is not feasible, SCE will identify the additional transmission upgrades necessary to mitigate any remaining impacts and develop the associated cost estimates.

- h. SCE will perform an analysis of affected circuit breakers and determine whether the affected circuit breakers need to be replaced or upgraded and determine the associated cost estimates. Such analysis shall include a reevaluation of single phase-to-ground and three phase-to-ground short circuit duties including the transmission upgrades listed in item 3d and, if applicable, item 3e and 3f above.
 - i. SCE will assess the scope of new operating procedures or modification of existing operating procedures that may be required to interconnect the Pastoria Expansion Project; however, development of any such operating procedures or the performance of any supporting studies will not commence until following execution of an Interconnection Agreement by SCE and PEF.
4. **Content:** The Study will include an estimate of (i) the cost of the required transmission system upgrades, modifications or additions and any other system facilities and upgrades to be charged to PEF, (ii) PEF's appropriate allocation of the cost of any required system additions, modifications and upgrades, and (iii) the time required to complete construction of such transmission system upgrades, modification or additions and other required system facilities and upgrades and initiate the requested service. The Study will include a list of major equipment required for the requested service. The cost estimate will include an estimate of additional facilities cost (capital cost of the facilities), and one-time cost (expenses not capitalized).
5. **Assumptions:** The assumptions utilized in performing the Study shall be as follows:
- a. PEF is or will be a New Facility Operator under the TO Tariff.
 - b. PEF will interconnect to the 230kV bus at the Pastoria Expansion Project via the PEF owned, operated and maintained 230kV generation tie-line, to transmit Energy and/or Ancillary Services to the ISO Controlled Grid.
 - c. Maximum interconnection capacity requested by PEF is 157 MW (158.8 maximum output less 1.8 generator auxiliary load).
 - d. A PEF-requested estimated operating date of May 2007; however, such assumption shall be subject to change after Study results, permitting requirements,

design, land issues and material lead times become available so that a more accurate determination can be made.

- e. PEF will install, own, operate and maintain all ISO metering equipment. All ISO metering equipment will be located on PEF's side of the point of interconnection.
 - f. SCE will install, own, operate and maintain a Remote Terminal Unit at the PEF facility to transmit the required real-time generation data to SCE.
 - g. Projects with interconnection applications preceding PEF are assumed in-service; however, except as identified in Section 3e and 3d above, potential system enhancements or modifications resulting from such projects, if any, are not assumed.
6. **Time Required for Completion:** SCE will use due diligence to complete the Study within 135 calendar days (45 calendar days to complete the technical assessment described in Section 3d and 90 calendar days to complete the balance of the Study) following receipt of a fully executed copy of this Agreement and payment pursuant to Sections 12 and 16 of this Agreement.
7. **Additional Time for Completion:** At any time that SCE determines that the Study cannot be completed within 135 calendar days in accordance with Section 6 of this Agreement, SCE shall notify PEF and provide an estimated completion date, along with an explanation of the reasons why additional time is required to complete the Study.
8. **Exchange of Information:** SCE and PEF shall confer with one another as necessary to exchange information that will provide for the most accurate analysis possible with the information available at the time the Study is performed.
9. **Third Party Review:** The Study results will not reflect any review or analysis by any third party (including that portion of a third party's electrical system that is part of the ISO Controlled Grid). SCE shall provide a copy of the Study results and related work papers to the ISO. If PEF elects to proceed with the application process, SCE may provide a copy of the Study results to the Western Electricity Coordinating Council ("WECC"), and any transmission owner potentially impacted by the requested service. Requests for review and input from such entities may arrive at any time prior to interconnection, and revision and reconsideration of the Study may be

required as a result of information received from the ISO or WECC, or any other such entity regarding any potential impact to a third party's electrical system.

10. **Results Based on Information Available at Time of Study:** Substantial portions of technical data and assumptions used to perform the Study, such as system conditions, existing and planned generation, and unit modeling, may change after SCE provides the Study results to PEF. Study results will reflect available data at the time SCE provides the Study to PEF. Additionally, Study results will reflect the ISO Tariff, rules and protocols in effect at the time SCE provides the Study to PEF. Such Tariff, rules and protocols are subject to change. SCE shall not be responsible for any additional costs (including, without limitation, costs of new or additional facilities, system upgrades, or schedule changes) that may be incurred by PEF as a result of changes in such data, assumptions, or the ISO Tariff, rules and protocols which occur following provision of this Study.
11. **New Study at PEF's Costs:** In the event that a new Facilities Study or revision or reconsideration of a System Impact Study or Facilities Study is required (a) as a result of information received from any entity regarding any potential impact to a party's electrical system, or (b) to reflect changes which occur following provision of this Facilities Study, then PEF shall either enter into a separate agreement providing that it shall reimburse SCE for the costs of such new or revised study, or withdraw its application.
12. **Payment:** PEF shall pay the full cost for SCE to perform the Study as follows:
 - a. PEF shall reimburse SCE for SCE's cost of performing the Study; provided, however, that PEF shall not be required to reimburse SCE for amounts in excess of the estimated Study costs of \$100,000, except as provided in Section 13 of this Agreement.
 - b. PEF shall advance to SCE \$100,000 for the Study upon execution of this Agreement.
 - c. SCE shall refund to PEF, without interest, any amounts received by SCE which exceed the cost of the Study, even if terminated pursuant to Section 13 or 15 of this Agreement.
13. **Increased Costs:** If at any time SCE determines that the Study is expected to cost more than \$100,000, SCE shall notify PEF and provide an estimate of any additional

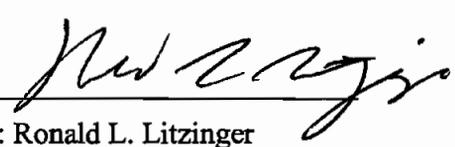
costs. Upon receipt of such notice, PEF shall either: (i) request that SCE terminate the Study; or (ii) provide a written request to SCE that SCE continue the Study, and agree to pay any additional costs to SCE. SCE shall be under no obligation to incur costs in excess of \$100,000 for the Study, unless and until it receives notice pursuant to this Section 13 and an agreement from PEF to pay costs in excess of \$100,000.

14. **Records and Accounts:** SCE shall maintain records and accounts of all costs incurred in performing the Study in sufficient detail to allow verification of all costs incurred, including, but not limited to, labor and associated labor burden costs, materials and supplies, outside services, and administrative and general expenses. PEF shall have the right, upon reasonable notice, within a reasonable time at SCE's offices and at its own expense, to audit SCE's records as necessary and as appropriate in order to verify costs incurred by SCE. Any audit requested by PEF shall be completed, and written notice of any audit dispute provided to SCE's representative, within one hundred eighty (180) days following receipt by PEF of SCE's notification of the final Study costs.
15. **Termination Upon Demand:** PEF may demand that SCE terminate the Study at any time. Immediately following receipt of written notice of such termination from PEF, SCE shall terminate the Study as demanded. In such case, PEF shall reimburse SCE only for costs actually incurred or irrevocably committed to be incurred for the performance of the terminated Study. If PEF so requests in its notice of termination, SCE shall submit to PEF the results of the incomplete Study in a report including assumptions and calculations available at the time SCE receives PEF's termination notice.

16. **Signature Clause:** This Agreement shall become effective on the date the fully executed Agreement and payment pursuant to Section 12 of this Agreement are received by SCE. If SCE does not receive the fully executed Agreement and payment within 10 Business Days of PEF's receipt, then the offer reflected in this Agreement will expire and this Agreement will be of no effect.

SOUTHERN CALIFORNIA EDISON COMPANY

APPROVED
STEPHEN E. PICKETT
Sr. Vice President and
General Counsel
By: 
8/13 Attorney
2005

By: 
Name: Ronald L. Litzinger
Title: Senior Vice President

ACCEPTED AND AGREED to this 19 day of Aug., 2005

PASTORIA ENERGY FACILITY, LLC

By: 
Name: **DAN RORABAUGH**
Title: *Vice President*

**BEFORE THE ENERGY RESOURCES CONSERVATION AND DEVELOPMENT COMMISSION
OF THE STATE OF CALIFORNIA**

IN THE MATTER OF:

**APPLICATION FOR CERTIFICATION FOR THE
PASTORIA ENERGY FACILITY (PEF)
160 MW EXPANSION
BY CALPINE CORPORATION**

**DOCKET No. 05-AFC-1
PROOF OF SERVICE LIST
[ESTABLISHED 7/25/05]**

DOCKET UNIT

Instructions: Send an original signed document plus 12 copies or an electronic copy plus one original paper copy to the address below:

**CALIFORNIA ENERGY COMMISSION
DOCKET UNIT, MS-4
Attn: Docket No. 05-AFC-1
1516 Ninth Street
Sacramento, CA 95814-5512
docket@energy.state.ca.us**

Also send a printed or electronic copy of all documents to each of the following:

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INTERVENORS

No Intervenors to date.

INTERESTED AGENCIES

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DECLARATION OF SERVICE

I Angela Hockaday declare that on August 22, 2005, I deposited copies of the attached Southern California Edison Company Transmission Owner Tariff Facilities Study Agreement in the United States mail at Sacramento, CA with first class postage thereon fully prepaid and addressed to those identified on the Proof of Service list above. Transmission via electronic mail was consistent with the requirements of California Code of Regulations, title 20, sections 1209, 1209.5, and 1210.

I declare under penalty of perjury that the foregoing is true and correct.


[signature]

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