

August 13, 2009

DOCKET
08-AFC-13

DATE	<u>AUG 13 2009</u>
RECD.	<u>AUG 17 2009</u>

Mr. Christopher Meyer
CEC Project Manager
Attn: Docket No. 08-AFC-13
California Energy Commission
1516 Ninth Street
Sacramento, CA 95814-5512

Mr. Jim Stobaugh
BLM Project Manager
Attn: Docket No. 08-AFC-13
Bureau of Land Management
P.O. Box 12000
Reno, NV 89520

RE: SES Solar One Project
Applicant's Responses to CURE Data Requests 229-275
CURE Data Requests Set 2

Dear Mr. Meyer and Mr. Stobaugh:

Tessera Solar hereby submits the Applicant's responses to CURE Data Requests 229-275 (Data Requests Set 2). I certify under penalty of perjury that the foregoing is true, correct, and complete to the best of my knowledge.

Sincerely,



Camille Champion
Project Manager

SES SOLAR ONE

In Response to CURE Data Requests
Set 2: Data Requests 229-275

Application for Certification (08-AFC-13)

August 2009

Submitted to:
Bureau of Land Management
2601 Barstow Road
Barstow, CA 92311

Submitted to:
California Energy Commission
1516 9th Street, MS 15
Sacramento, CA 95814-5504



Submitted by:
SES Solar Three, LLC
SES Solar Six, LLC

SES

Stirling Energy Systems
4800 N. Scottsdale Road, Suite 5500
Scottsdale, AZ 85251

SES Solar One
In Response to CURE Data Requests, Set Two
Data Requests 229-275
08-AFC-13

TECHNICAL AREA: TRANSMISSION/ INTERCONNECTION

Data Request 229: Please provide a copy of the Interconnection Agreement (“IA”).

Response: There is currently no interconnection agreement (IA); however, the Final Interconnection Facilities Study Report has been completed and is provided behind this response as attachment TRANS-1.

Final Interconnection Facilities Study Report

Generation Interconnection

Stirling Energy Systems, Inc.

SES Solar One Project



California ISO
Your Link to Power

November 6, 2008

This study has been completed in coordination with Southern California Edison
per the Large Generator Interconnection Procedures

STIRLING ENERGY SYSTEMS, INC.
SES SOLAR ONE PROJECT
FINAL INTERCONNECTION FACILITIES STUDY REPORT

Interconnection Facilities Study

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STIRLING ENERGY SYSTEMS, INC.
SES SOLAR ONE PROJECT
FINAL INTERCONNECTION FACILITIES STUDY REPORT

I. Executive Summary

Stirling Energy System, Inc. (SES) applied to the California Independent System Operator (CAISO) for the interconnection of their 850MW Solar One Project to the CAISO Grid at the existing SCE Pisgah Substation 220kV Bus pursuant to Section 3.5 of the Large Generator Interconnection Procedures ("LGIP") issued under the CAISO Tariff.

SES will install 34,000 – 25kW Stirling System Solar Dishes with associated induction generators, two 500MVA 220/34.5kV substations and a new "Three – Point" 220kV Generation Tie Line connecting the substations to the SCE Pisgah Substation.

For the purpose of this study the new SES facilities will be called as follows:

- SES Solar One Substation A
- SES Solar One Substation B
- SES 220kV Gen Tie Line

SEE EXHIBIT A: SES 1 PROJECT INTERCONNECTION

SES has requested an Interconnection Date of December 31, 2010.

However, due to the magnitude of the upgrades required to the SCE System and the fact that many of these upgrades would require environmental studies prior to licensing and permitting, at this time SCE estimates that the earliest possible Interconnection Date would be sometime in the year 2015.

SCE prepared a System Impact Study (SIS) dated March 7, 2006 to analyze the impact of the 850MW Project to the SCE Transmission System.

In addition, SCE prepared a Technical Study (TAS I) to analyze Transient Stability Studies.

Both the SIS and the TAS I identified the impacts to the SCE System associated with the interconnection of the SES1 Project and determined that a number of facility upgrades will be required in order to interconnect and deliver the full output of the project.

Subsequent to these two studies, a number of queued ahead generation projects withdrew from the CAISO Interconnection Queue resulting in a need to perform a complete reassessment of the impacts originally identified in the SIS and the TAS I.

SCE prepared a new Technical Assessment II (TAS II) dated June 13, 2008 to analyze the impact of the 850MW Project to the SCE Transmission System. This study incorporates the recent project withdrawals and presents corresponding results.

This Facilities Study Report addresses the results of the TAS II dated June 13, 2008.

The TAS II concluded that, in spite of the withdrawal of earlier Generation Applications, the required System Upgrades remained the same as those addressed on the earlier SIS and TAS I Reports.

SEE EXHIBIT B: TAS II – EXECUTIVE SUMMARY & OVERLOAD TABLES

STIRLING ENERGY SYSTEMS, INC.
 SES SOLAR ONE PROJECT
 FINAL INTERCONNECTION FACILITIES STUDY REPORT

II. Technical Assessment II Results

The SIS analyzed the System assuming the following interconnections on the "North of Lugo" area on line and all related System Upgrades associated with these interconnections, placed ahead of the Project in the Application Queue, are in place:

<u>Application</u>	<u>Interconnection Point</u>	<u>MW</u>	<u>Operating Date</u>
SCE WDAT 112	Casa Diablo Sub. 115kV Bus	17	2007 (Not on line)
CAISO #11	<u>New</u> Wheaton Sub 115kV Bus	63	Suspended - TBD
CAISO #33	Control Sub. 115kV Bus	10	In Service
SCE WDAT 164	<u>New</u> Seaggett Sub. 115kV Bus	80	2009
CAISO #58	Control 15kV Bus	62	2009
CAISO #68	Pisgah Sub. 220kV Bus	850	2010 - Note

NOTE: Based on the estimated time required for licensing and permitting activities SCE estimates an Energization Date in the Year 2015.

The TAS II concluded that the existing SCE Transmission System is not adequate to support the Project and identified upgrades required for the 850MW Generation.

Power Flow Analysis:

Base Case:

Four Base Case Overloads triggered by the Project as follows:

1. Lugo – Pisgah No.1 220kV T/L	Rated 725A	Loaded to 812A	(112%)
2. Lugo – Pisgah No.2 220kV T/L	Rated 725A	Loaded to 808A	(111%)
3. Lugo No.1 500/220 Tr. Bk.	Rated 1120MVA	Loaded to 1160MVA	(103%)
4. Lugo No.2 500/220 Tr. Bk.	Rated 1120MVA	Loaded to 1168MVA	(104%)

NOTE: The 605KCMIL ACSR Conductors on the Lugo – Pisgah No.1 & No.2 220kV T/L's are rated 885A for Normal Conditions, 1020A for N-1 and 1190A for N-2. However, these two lines have been de-rated to 725A for both Normal and Emergency conditions due to restrictions on the line-to-ground clearances.

Proposed Solution:

- Transfer the increased load flow triggered by the Project from the 220kV to the 500kV System as follows:
- Expand the existing Pisgah 220kV Interconnection Facility and install a new 2240MVA 500/220kV Substation with two 1120MVA Transformer Banks.
- Loop the existing Eldorado – Lugo 500kV T/L into the expanded Pisgah Substation and form the two new Eldorado – Pisgah and Lugo – Pisgah No.1 500kV T/L's.
- Install a new Lugo – Pisgah No.2 500kV T/L by removing the existing Lugo – Pisgah No.2 220kV T/L, widening the existing Right-of-Way where needed and constructing the new 500kV Structures within the vacated R/W.

Contingencies:

- The installation of the upgrades described above to eliminate Base Case Overloads will require a new Special Protection Scheme (SPS) to trip off the Project under the simultaneous outages of both the Lugo – Pisgah No.1 and No.2 500kV T/L's to eliminate overloading the new Eldorado – Pisgah 500kV T/L.

STIRLING ENERGY SYSTEMS, INC.
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Transient Stability Analysis:

The TAS II concluded that, with the existing Kramer RAS and High Desert Power Project (HDPP) RAS operating as designed when required and the new SPS proposed for this Project there are no additional upgrades to the SCE System required. However, the Project will need to provide 300MVAR of dynamic reactive support.

SCE must be included in the review process of all technical specifications to determine the Static VAR Compensator (SVC) parameters.

Post – Transient Voltage Analysis:

The TAS II concluded that, with the proposed upgrades in place, the Project would not trigger any new post transient criteria violations.

Short Circuit Study Analysis:

The TAS II identified the following six 500kV, nineteen 220kV, and three 66kV locations where the Project causes the Three Phase and / or the Single Phase to Ground Short Circuit Duties to increase by 0.1kA or more and requested that all circuit breakers at those locations be evaluated.

500kV:

Eldorado	Lugo	Mira Loma	Rancho Vista	Serrano	Vincent
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220kV:

Alamitos	Barre	Center	Chino	Eldorado	Etiwanda
Hunt. Bch.	La Fresa	Lewis	Lighthipe	Mesa	Mira Loma
Ormond Bch.	Rancho Vista	Serrano	Sylmar	Villa Park	Vincent

Wildlife (Formerly Jurupa)

66kV:

Chino	Ellis	Padua
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The Circuit Breaker evaluations concluded that the Project does not trigger any CB replacements or upgrades but aggravates pre-project conditions that require fifteen replacements and seventeen upgrades of 220kV CB's at the Etiwanda Gen. Sta. 220kV Switchyard and Mira Loma Substation. The increased Short Circuit Duty at Mira Loma Substation also requires the 220kV Switchyard be upgraded to 80kA Rating.

III. Facilities Study Assumptions

- A. The SES 220kV Gen Tie Line from the SES Solar One Substations A and B to the last structure outside the SCE Pisgah Substation perimeter fence will be installed by SES and is not included in the Facilities Study.
- B. The SES 220kV Gen Tie Line must be equipped with Optical Ground Wire (OPGW) to provide one of the two telecommunication paths required for the line protection scheme and the SPS. The cost of the OPGW will be included in the cost of the line and is not included in the Facilities Study.
- C. It is expected that the last structure of the SES 220kV Gen Tie line outside the SCE Pisgah Substation perimeter fence would be close enough to the 220kV Switchyard that would require only one span of conductors to reach the proposed 220kV Line Position. In this case, the last span of conductors from the last SES Structure to the Pisgah Substation 220kV Switchyard will be installed by SCE and it is included in the Facilities Study.

STIRLING ENERGY SYSTEMS, INC.
SES SOLAR ONE PROJECT
FINAL INTERCONNECTION FACILITIES STUDY REPORT

- D. All required CAISO metering equipment at the Generating Facility will be provided by SES and is not included in the Facilities Study.
- E. The following line protection relays, to be installed at each one of the termination points of the SES Gen Tie Line at the SES Solar One Substations A and B will be specified by SCE and provided by SES and are not included in the Facilities Study.
- One G.E. L90 Current Differential Relays with dual dedicated digital communication channels to Pisgah Substation.
 - One SEL 311L Current Differential Relays with dual dedicated digital communication channels to Pisgah Substation.
- F. The following SPS Relays, to be installed at each one of the termination points of the SES Gen Tie Line at the SES Solar One Substations A and B will be specified by SCE and provided by SES and are not included in the Facilities Study.
- Two N60 relays (One each for SPS A and B) to trip the Main Generator Breaker.
 - One SEL – 2407 Satellite Synchronized Clock.
- G. The Optical Ground Wires to be installed on the Lugo – Pisgah No.1 and No.2 500kV T/L's do not require the installation of any Optical Repeater Sites between the two substations.
- H. The required Remote Terminal Units (RTU's) to be installed at the SES Solar One Substations A and B will be installed by SCE and they are included in the Facilities Study.
- I. The required Microwave Dishes to be mounted on the Antenna Towers to be installed at the SES Solar One Substations A and B to provide the second digital communication channels required for the line protection relays on the SES 220kV Gen Tie Line will be installed by SCE and they are included in the Facilities Study.
- SES must provide the Microwave Antenna Towers and an approximate area of 20 Ft. by 40 Ft. within their Control Rooms at each one of the SES Solar Substations A and B for SCE to install the required Telecommunications Terminal Equipment.
- SES must also provide AC and DC Power Supply for all Terminal Equipment.
- J. The actual cost of the land to be purchased for the space required to expand Pisgah Substation and construct the 500kV Line Loop and the section of new Right-of-Way required for the Lugo – Pisgah No.2 500kV T/L, has not been estimated at this time and, therefore, is not included in the Facilities Study.
- K. The cost to support all SCE activities required for the Environmental Impact Statement and/or Environmental Impact Report and all other regulatory filings required for the Project are not included in the Facilities Study.

IV. Facilities Study Scope and Cost Estimate

IV – A Facilities Study Scope

Pursuant to FERC's orders 2006-A (Small Generators) and 2003-A (Large Generators) all Facilities Studies are required to provide the customer with its "maximum possible funding exposure", which shall include the costs of upgrades that are reasonably allocable to the Interconnection Customer at the time the estimate is made, and the costs of any upgrades not yet constructed that were assumed in the interconnection studies for the Interconnection Customer but are, at the time of the estimate, an obligation of an entity other than the Interconnection Customer."

STIRLING ENERGY SYSTEMS, INC.
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To comply with the FERC orders, the Scope of Work and Cost Estimate for all elements required for the interconnection are presented for the following two cases:

CASE A: All facilities required exclusively by the Project

And

CASE B: All additional facilities that may be required by the Project

The facilities included in Case B are those additional facilities required to remedy reliability violations caused by higher-queued Projects, placed ahead of the Project in the Application Queue, and are expected to be implemented by those higher-queued projects.

However, in the event that any of these higher-queued projects withdraw their Application, the Project may become responsible for any or all of these additional facilities.

CASE A:

1. SES 220kV Gen Tie Line: Install Rack Span into Pisgah Substation.
2. Eldorado – Lugo 500kV T/L: Loop the line into the expanded Pisgah Substation and form the two new Eldorado – Pisgah and Lugo – Pisgah No.1 500kV T/L's.
In addition: After the loop is completed, replace one of the two existing OHGW's on the Lugo – Pisgah No.1 500kV T/L with new OPGW.
3. Lugo – Pisgah No.2 500kV T/L: Remove sixty five miles of existing Lugo – Pisgah No.2 220kV T/L and construct a new 500kV Line on the existing Right-of-Way.
This work will require widening of some sections of the existing Right of Way.
4. Lugo – Pisgah No.1 500kV T/L: Replace one of the two existing ½-In. Steel Overhead Ground Wires with new Optical Ground Wire (OPGW).
5. Pisgah Substation: Expand the existing station and install a new 2240MVA 500/220kV Substation with two Transformer Banks, three 500kV Lines and two 220kV Lines.
Also upgrade the Line Protection Relays on the remaining Lugo and the existing Cima – Eldorado No.1 and No.2 220kV Line Positions and install all required SPS Relays.
6. Eldorado Substation: Upgrade Line Protection on the Lugo 500kV Line Position (Future Pisgah) and the Cima – Pisgah No.1 and No.2 220kV Line Positions.
7. Lugo Substation: Install a 500kV Line Position to terminate the new Pisgah No.2 500kV T/L.
Also upgrade Line Protection on the Eldorado 500kV Line Position (Future Pisgah No.1 500kV) and the Cima – Pisgah No.1 220kV Line Position (Future Pisgah 220kV) and install all required SPS Relays.

STIRLING ENERGY SYSTEMS, INC.
 SES SOLAR ONE PROJECT
 FINAL INTERCONNECTION FACILITIES STUDY REPORT

- | | |
|---------------------------|---|
| 8. Telecommunications | Install new digital channels and associated terminal equipment to support the Line Protection Relays for the new SES 220kV Gen Tie Line, the SPS Relays and the new RTU's to be installed at the SES Solar One Substations A and B. |
| 9. Power System Control | Install new RTU's at the SES Solar Substations A and B and replace the existing RTU's at Pisgah and Lugo Substations. |
| 10. Corporate Real Estate | Perform all required functions to obtain permits and land acquisition for the expansion of Pisgah Substation and the 500kV T/L Loop plus the replacements of the existing Lugo – Pisgah No.2 220kV T/L with a new 500kV T/L. |

CASE B:

- | | |
|--|---|
| 1. Etiwanda Gen. Station
220kV Switchyard | Replace three 47.3kA 220kV CB's with new 63kA Rated units and upgrade seventeen 56.6kA 220kV CB's to 63kA Rating. |
| 2. Mira Loma Substation: | Replace twelve 63kA 220kV CB's with 80kA Rated units and upgrade the 220kV Switchyard to 80kA Rating. |

FOR ADDITIONAL DETAIL REFER TO THE FOLLOWING EXHIBITS:

- **EXHIBIT D: PISGAH SUBSTATION – 500kV TRANSMISSION LINES – TELECOMMUNICATIONS CIRCUITS**
- **EXHIBIT E: FACILITIES STUDY SCOPE – DETAILS**

IV – B Facilities Study Cost Estimate

CASE A Identifies the cost of all facilities that are required exclusively by the Project.

CASE B Identifies the cost of all upgrades required that were triggered by higher-queued Applicants placed ahead of the Project in the Application Queue.

In the event that any Applicant, presently placed ahead of the Project in the Application Queue, withdraws its Application, the system would need to be re-evaluated. The new evaluation may conclude that the Project would now trigger any of these upgrades and would then become responsible for some or all of the upgrades identified in Case B.

The total estimated cost of all elements of the interconnection as identified above in the Facilities Study Scope is as follows:

CASE A:	\$388,519,000
CASE B (<u>May</u> be added to Case A):	<u>\$ 32,902,000</u>
POSSIBLE MAXIMUM COST EXPOSURE:	\$421,421,000

SEE EXHIBIT F: COST SUMMARY

STIRLING ENERGY SYSTEMS, INC.
SES SOLAR ONE PROJECT
FINAL INTERCONNECTION FACILITIES STUDY REPORT

V. Conclusions

- A. The estimated cost for the Interconnection is approximately \$388,519,000 for Case A with the potential additional cost of \$32,902,000 for Case B for a total Maximum Cost Exposure of \$421,421,000.
- B. The time required to complete the proposed project will be approximately seven years after receiving project authorization and funding, subject to availability of resources.
This estimate of time is based on the following elements:
- Approximately five years required for all necessary permitting and licensing required for the installation of the new Pisgah Substation and the 500kV Line Loop into the station plus the removal of the existing Lugo – Pisgah No.2 220kV T/L and construction of the new Lugo – Pisgah No.2 500kV T/L in its place.
 - Approximately two years required for the engineering, design, purchase of materials and construction of the elements addressed above.
- C. The costs indicated in the attached tables are shown 2015 Dollars and are not firm. These are only preliminary estimates based on conceptual engineering and system unit costs, and are subject to change based on the final design and actual material costs. This Facilities Study and cost estimates as presented are valid for a period of 150 days.
- D. The estimated Project Cost will be reconciled to actual costs upon closure of the subject work orders. The necessary billing adjustments will be made at that time.

SES Solar One
In Response to CURE Data Requests, Set Two
Data Requests 229-275
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TECHNICAL AREA: TRANSMISSION/INTERCONNECTION

Data Request 230: If there is no IA, please explain why the AFC references it.

Response: The Application For Certification (AFC) references the Project's participation in the Large Generator Interconnection Procedures process that ultimately leads to an IA.

SES Solar One
In Response to CURE Data Requests, Set Two
Data Requests 229-275
08-AFC-13

TECHNICAL AREA: TRANSMISSION/INTERCONNECTION

Data Request 231: Did the interconnection studies analyze the consequences of an 850 Mw G-1 event?

Response: The 850 Mw G-1 event study is performed by Southern California Edison (SCE).

The California Independent System Operator (CAISO) Tariff states throughout the interconnection procedure that CAISO will meet the Applicable Reliability Standards. This defined term means the following;

“Applicable Reliability Standards shall mean the requirements and guidelines of NERC, the Applicable Reliability Council, and the Balancing Authority Area of the Participating TO’s Transmission System to which the Generating Facility is directly interconnected.”

In reviewing our study results from the CAISO and SCE, SCE provided a System Impact Study and in addition prepared a Technical Study (TAS and TAS II) to analyze the transient conditions.

Transient stability study of critical single and double contingencies north of Lugo were reviewed and all outage cases were initially evaluated without the implementation of the existing protection schemes. According to the study, to eliminate the Base Case Overloads a new Protection Scheme will be required that will trip off the SES Solar One Project under certain contingencies. For the contingencies that were found to be unstable, additional review was performed by SCE. Tripping of the Solar One Project was included if stability studies indicated that additional Remedial Action Schemes (RAS) were required.

The overloads on the system resulted from the injection of the 850 MW SES Solar One Project. All of the information and upgrades that are required alleviate the impacts associated with the inclusion of this Project.

Additional information may be found in the Final Interconnection Facilities Study Report completed by CAISO in coordination with SCE per the Large Generator Interconnection Procedures issued under the CAISO Tariff.

SES Solar One
In Response to CURE Data Requests, Set Two
Data Requests 229-275
08-AFC-13

TECHNICAL AREA: TRANSMISSION/INTERCONNECTION

Data Request 232: Would there be any facility overloads due to an 850 Mw G-1 event occurring during peak load conditions?

Response: In reviewing our study results from the CAISO and SCE, SCE provided a SIS and in addition prepared a Technical Study (TAS and TAS II) to analyze the transient conditions.

Transient stability study of critical single and double contingencies north of Lugo were reviewed and all outage cases were initially evaluated without the implementation of the existing protection schemes. According to the study, to eliminate the Base Case Overloads a new Protection Scheme will be required that will trip off the Solar One Project under certain contingencies. For the contingencies that were found to be unstable, additional review was performed by SCE. Tripping of the Solar One Project was included if stability studies indicated that additional RAS were required.

The overloads on the system resulted from the injection of the 850 MW Solar One Project. All of the information and upgrades that are required alleviate the impacts associated with the inclusion of this Project.

Additional information may be found in the Final Interconnection Facilities Study Report completed by CAISO in coordination with SCE per the Large Generator Interconnection Procedures issued under the CAISO Tariff.

SES Solar One
In Response to CURE Data Requests, Set Two
Data Requests 229-275
08-AFC-13

TECHNICAL AREA: TRANSMISSION/INTERCONNECTION

Data Request 233: Please provide a copy of the CAISO system study (“SIS”) from November 2008.

Response: The SES Solar One SIS is provided as Appendix H in the SES Solar One Application for Certification Volume 2 dated December 1, 2008.

SES Solar One
In Response to CURE Data Requests, Set Two
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TECHNICAL AREA: TRANSMISSION/ INTERCONNECTION

Data Request 234: Please provide any correspondence to or from the CAISO from SCE, the Applicant, or any other entity, between March 2006 and November 2008, regarding SIS (the March 2006 version, the November 2008 version, or any intermediate versions) and any modifications to the SIS.

Response: Any relevant correspondence that is not confidential is provided behind this response as attachment TRANS-2.



October 23, 2006

Via FedEx delivery

Robert Liden
Stirling Energy System, Inc.
2920 E. Camelback Road, Suite 150
Phoenix, AZ 85016

Dear Mr. Liden:

Enclosed are four (4) partially executed originals of the Optional Interconnection Study Agreement (OISA) between ~~XXXXXXXXXX~~ (SES) and the California Independent System Operator Corporation (ISO) for execution by SES.

Please sign, date, and fill in the name and title of the signatory where indicated in the signature block on the signature page of each of the originals and fill in the date of SES's execution where indicated on the first line of the Agreement to note the "entered into" date of the Agreement. You may then return three of the four fully executed and dated originals to my attention at California ISO, Market & Product Development, 151 Blue Ravine Road, Folsom, CA 95630. The fourth original is for SES's records.

We appreciate your assistance in this matter. If you have any questions about the execution version of the Agreement or the execution process, please feel free to contact me by email at reese@caiso.com or by phone at (916) 608-7027.

Sincerely,


Roni L. Reese
Sr. Contracts Analyst

Enclosures (4)

cc: without enclosures
Judy Nickel, ISO
Linda Wright, ISO
Ed Fishback, ISO



September 5, 2006

Dariush Shirmohammadi, PhD
Director of Regional Transmission – South
151 Blue Ravine Road, Folsom, CA 95630
(916) 608-1113

Mr. Robert Lugo
Manager, Grid Contracts/Tariff Negotiation/Development
Southern California Edison
P.O. Box 800
Rosemead, CA 91770

Subject: SES Solar One Project - SIS Review and Preliminary Approval

Dear Mr. Lugo:

The California ISO (CAISO) has reviewed the System Impact Study (SIS) for the SES Solar One Project ("Project"), a proposed 850 MW Concentrating Solar Power (CSP) generating facility to be located in San Bernardino County, California, requesting interconnection to SCE's Pisgah 230 kV Substation. The SIS was conducted by SCE, at the request of the Interconnection Customer, Stirling Energy Systems (SES). The Project will consist of installing 34,000 - 25 kW solar dish Stirling engine systems, and will be constructed over a 5-year period, with an initial in-service date of 12/31/08. Additionally, SES is proposing to install another 550 MW and 1,400 MW respectively of CSP solar generation interconnected to SCE's Pisgah Substation in 2011 and 2013 as part of their Solar Three and Solar Six Projects.

As articulated in the attachment, the CAISO concurs with the results provided in the System Impact Study and is granting preliminary approval to the SES Solar One Project to move forward with the remaining Interconnection Studies. Upon the CAISO's review of the Facilities Study with any Optional Studies (performed at the request of SES), and acceptance of the transmission plan of service to mitigate the adverse system impacts to the transmission system; the CAISO will provide final interconnection approval to connect the SES Solar One Project to the grid.

Please note that final interconnection approval of the project will allow the Project to connect to the CAISO Controlled Grid and to be eligible to deliver the project's output using available transmission. However, it does not establish the generation project's level of deliverability for purposes of determining its Net Qualifying Capacity under the CAISO Tariff and in accordance with CPUC-adopted Resource Adequacy Rules. Therefore, this letter makes no representation, and SES cannot rely on any statements herein, regarding the ability, or amount, of the output of the project to be eligible to sell Resource Adequacy Capacity. We encourage SES to follow the baseline deliverability studies ongoing at the CAISO. For more information on generation deliverability, please reference the following web link:
<http://www.caiso.com/181c/181c902120c80.html>

Should you have any questions, please contact Donna Jordan at (916) 351-2339 (e-mail to: djordan@caiso.com) or myself at (916) 608-1113 (e-mail to: dshirmohammadi@caiso.com).

Sincerely,

(Original signed by Dariush Shirmohammadi)

Dariush Shirmohammadi
Director of Regional Transmission (South)

ALSTON & BIRD LLP

601 Pennsylvania Avenue, N.W.
North Building, 10th Floor
Washington, DC 20004-2601

COVER PAGE

202-756-3300
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Michael Kunselman

Direct Dial: 202-756-3405

Email: michael.kunselman@alston.com

August 10, 2006

The Honorable Magalie Roman Salas
Secretary
Federal Energy Regulatory Commission
888 First Street, NE
Washington, DC 20426

Re: Large Generator Interconnection Procedures of the California Independent System Operator Corporation, Pacific Gas and Electric Company, San Diego Gas & Electric Company, and Southern California Edison Company -- Docket Nos. ER04-445-____, ER04-435-____, ER04-441-____, ER04-443-____

Dear Secretary Salas:

The California Independent System Operator Corporation ("CAISO") respectfully submits an original and five copies of the instant filing in compliance with the order of the Federal Energy Regulatory Commission ("Commission") dated July 12, 2006 in the above-captioned proceeding, *California Independent System Operator Corporation*, 116 FERC ¶ 61,030 ("July 12 Order").¹

The Commission issued the July 12 Order in response to a request for rehearing by the CAISO regarding the effective date for amendments to the Large Generator Interconnection Procedures ("LGIP"), including the associated

¹ The July 12 Order did not specify a date by which this compliance filing was due, but the ISO believes that the filing is properly submitted within 30 days of the issuance of the July 12 Order. Cf. 18 C.F.R. § 385.1907 (2006) (requiring that "reports of compliance" be submitted within 30 days unless otherwise ordered).

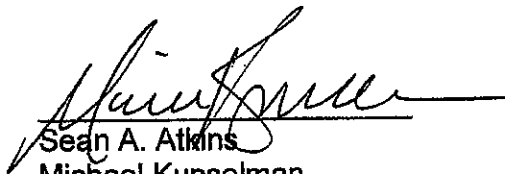
agreement for allocating study responsibilities between the CAISO and Participating Transmission Owners ("Roles and Responsibilities Agreement") and *pro forma* Interconnection Study agreements, as well as the Large Generator Interconnection Agreement ("LGIA"), incorporated in the CAISO Tariff to implement the "centralized study process" referenced in the July 12 Order. July 12 Order at PP 1, 10. In its compliance filing submitted on June 23, 2006, the CAISO used an "Effective" date of March 1, 2006 for the tariff sheets implementing the "centralized study process," as previously directed by the Commission in its order dated May 24, 2006 in the above-captioned proceeding, *California Independent System Operator Corporation*, 115 FERC ¶ 61,237 (2006). In the July 12 Order, the Commission directed the CAISO to use an effective date of May 24, 2006 for the amendments to both the LGIP and associated *pro forma* Interconnection Study agreements and the LGIA, to implement the "centralized study process." July 12 Order at PP 1, 10.

In accordance with the July 12 Order, the CAISO hereby submits revised versions of the tariff sheets that incorporate the amendments to the LGIP, including the associated Roles and Responsibilities agreement and the *pro forma* Interconnection Study agreements, and the LGIA, to implement the "centralized study process," changing the "Effective" date for these sheets from March 1, 2006 to May 24, 2006 as ordered by the Commission.

The revised tariff sheets with the changes to the "Effective" date described above for the LGIP and associated Roles and Responsibilities Agreement and *pro forma* Interconnection Study agreements are provided in Attachment A to the present filing. The revised tariff sheets with the changes to the "Effective" date described above for the LGIA are provided in Attachment B.

Two additional copies of this filing are enclosed to be date-stamped and returned to our messenger. If there are questions concerning this filing, please contact the undersigned.

Respectfully submitted,



Sean A. Atkins

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Attorneys for the California Independent
System Operator Corporation



California ISO
Your Link to Power

California Independent
System Operator Corporation

December 13, 2007

Via Electronic Filing

The Honorable Kimberly D. Bose
Secretary
Federal Energy Regulatory Commission
888 First Street, N.E.
Washington, D.C. 20426

**Re: Large Generator Interconnection Procedures (LGIP) -
Generator Queuing Practices
Docket No. AD08-2-000**

Dear Secretary Bose:

Attached please find the Prepared Statement of Armando Perez, Vice President, Transmission Planning and Infrastructure Development of the California Independent System Operator Corporation for filing in the above-referenced docket.

Thank you for your attention to this matter.

Yours truly,

/s/ Grant Rosenblum

Grant Rosenblum
Senior Counsel
Counsel for the California Independent
System Operator Corporation

Attachment
cc: Service List



March 2, 2006

Dr. Steven Trimble
Senior Manager for Systems
Stirling Energy Systems, Inc.
2920 E. Camelback Rd., Suite 150
Phoenix, Arizona 85016

Dear Dr. Trimble:

On October 20, 2005, Stirling Energy Systems executed a System Impact Study Agreement (SISA) with SDG&E. In addition to the stability models provided by SES, SDG&E's Generator Interconnection Team received a copy of a report to SES from General Electric for "PSLF Model for SES Solar". In this report it is stated that the H Constant value does not include the prime mover. SDG&E's subsequent review of this study and confirmation through preliminary modeling verified the data was inadequate. The value provided results in unstable conditions for even modest fault conditions.

In mid-January, 2006, SDG&E first contacted SES to request that they investigate the H value provided in the stability data. The value appeared too small and, as reported in the above referenced study, the value resulted in unstable conditions for even modest fault conditions. The original value appeared to only cover the generator inertial affects and not the prime mover. SDG&E sent subsequent emails requesting a valid H Value Constant. On February 14, 2006 SDG&E also met with SES to discuss preliminary results and informed them of the need to update the H value constant.

SDG&E is unable to proceed with the System Impact Study (SIS) until this data is submitted to them per their multiple requests as detailed above. As this data is considered critical to the completion of the SIS and Stirling Energy Systems has failed to comply with SDG&E requests for such data, this project is considered to be in violation of the Large Generator Interconnection Procedure (LGIP) and therefore is subject to withdrawal.

Section 7.2 of the Interim LGIP details the requirement for the Interconnection Customer to provide all technical data at the time of the execution of the SISA. Since the deficiency in the data was not discovered until the GE PSLF Model for SES Solar was received in mid-December, notification of the deficiency could not be tendered until this data was reviewed. Stirling Energy Systems has failed to cure the deficiencies in the data per the notifications by SDG&E to Stirling and therefore, the ISO is officially notifying Stirling Energy Systems that the deficient data must be submitted to SDG&E and the ISO no later that March 16, 2006. Failure to comply will result in immediate withdrawal from the ISO queue.

Please feel free to contact me if you have any questions.

Sincerely,

Judy Nicker
Resource Analyst

cc: Tom French - ISO
Irina Green - ISO
Gary Brown - ISO
Steve Taylor - SDG&E



July 12, 2007

Judy Nickel
California Independent System Operator
151 Blue Ravine Road
Folsom, CA 95630

Re: SES Solar One System Impact Restudy and Deposit

Dear Ms. Nickel:

Please use this letter and enclosed deposit as confirmation from SES Solar One, LLC to proceed with the System Impact Restudy. We are in the understanding that the restudy is required by the CAISO as a result of a recent withdrawal of a 634 MW generation project from the CAISO queue. As stated in your correspondence to SES via email, CAISO expects the restudy to be completed in 60 calendar days with a final report in 80 days and, further, that these results will be incorporated into the Facilities Study as appropriate. Your assistance in this matter is greatly appreciated.

If I can be of further assistance, please feel free to contact me at anytime.

Sincerely,

Stirling Energy Systems, Inc.
Ms. Erika Hanson
Project Manager
Biltmore Lakes Corporate Center
2920 East Camelback Ste 150
Phoenix, AZ 85016
602-957-1818 office
602-421-8321 cell

Enclosed: \$10,000 deposit check

Stirling Energy Systems, Inc.
Biltmore Lakes Corporate Center
2920 East Camelback Road
Suite 150
Phoenix, AZ 85016

602 957 1818 tel
602 957 1919 fax

SES Solar Test Site
Sandia National Laboratories
Albuquerque, NM

SES Office – Europe
Via Lattanzio, 66
00136 Roma
Italy

06/39737590 tel
06/39728963 fax

SES Office – Asia
Suite 15H, Bldg 3, Garden #2
Beijiaodi Rd, Fengtai District
Beijing 100067
China

86-10-6752-8493 tel
86-10-6756-3664 fax

SES Solar One
In Response to CURE Data Requests, Set Two
Data Requests 229-275
08-AFC-13

TECHNICAL AREA: TRANSMISSION/INTERCONNECTION

Data Request 235: Please provide a copy of the most recent draft or final facility study done for the Project.

Response: The Final Interconnection Facilities Study Report is provided as attachment TRANS-1 located behind Data Request 229.

SES Solar One
In Response to CURE Data Requests, Set Two
Data Requests 229-275
08-AFC-13

TECHNICAL AREA: TRANSMISSION/INTERCONNECTION

- Data Request 236:** Please provide the expected cost of interconnection facilities, including:
- i. Direct interconnection facilities between SES One and the Pisgah substation;
 - ii. Expansion of the Pisgah substation and looping of the existing 500 kV line into Pisgah;
 - iii. Construction of the Pisgah-Lugo #2 500 kV line and associated substation terminations; and
 - iv. Removal of the existing Pisgah-Lugo #1 and #2 transmission lines and associated towers.

Response: The cost of the interconnection facilities between Solar One and the Pisgah substation are included in the overall Project cost provided in the AFC. The Applicant does not have the cost information requested in items ii, iii, and iv. That is under the control of SCE.

SES Solar One
In Response to CURE Data Requests, Set Two
Data Requests 229-275
08-AFC-13

TECHNICAL AREA: TRANSMISSION/INTERCONNECTION

Data Request 237: Please explain what reactive resources will be part of the Project.

Response: Any discussion of reactive resources required by the CAISO would be included in the SIS provided as Appendix H in the SES Solar One Application for Certification Volume 2 dated December 1, 2008. Additional information may also be provided in the Final Interconnection Facilities Study Report completed by CAISO in coordination with SCE per the Large Generator Interconnection Procedures issued under the CAISO Tariff. Additional transmission questions can be directed to the CAISO or SCE.

SES Solar One
In Response to CURE Data Requests, Set Two
Data Requests 229-275
08-AFC-13

TECHNICAL AREA: TRANSMISSION/INTERCONNECTION

Data Request 238: Please explain how many Mvar of reactive resources at the 220 kV or 500 kV will be part of the Project.

Response: Work to date on reactive resources is contained in the SIS provided as Appendix H in the SES Solar One Application for Certification Volume 2 dated December 1, 2008. Additional information can be found in the Final Interconnection Facilities Study Report completed by CAISO in coordination with SCE per the Large Generator Interconnection Procedures issued under the CAISO Tariff. In addition, part of later site engineering will address this as well. Also, California Unions for Reliable Energy (CURE) may want to address any transmission questions to the CAISO or SCE.

SES Solar One
In Response to CURE Data Requests, Set Two
Data Requests 229-275
08-AFC-13

TECHNICAL AREA: TRANSMISSION/INTERCONNECTION

Data Request 239: Please explain what dynamic reactive resources will be part of the Project.

Response: Work to date on dynamic reactive resources is contained in the SIS provided as Appendix H in the SES Solar One Application for Certification Volume 2 dated December 1, 2008. Additional information can be found in the Final Interconnection Facilities Study Report completed by CAISO in coordination with SCE per the Large Generator Interconnection Procedures issued under the CAISO Tariff. In addition, part of later site engineering will address this as well. Also, CURE may want to address any transmission questions to the CAISO or SCE.

SES Solar One
In Response to CURE Data Requests, Set Two
Data Requests 229-275
08-AFC-13

TECHNICAL AREA: TRANSMISSION/INTERCONNECTION

Data Request 240: Please explain any discrepancies between the quantity (in Mvar) and kind (static vs. dynamic) or reactive resources planned to be part of the Project, and the quantity and kind of reactive resources called for in the SIS.

Response: Work to date on reactive resources is contained in the SIS provided as Appendix H in the SES Solar One Application for Certification Volume 2 dated December 1, 2008. Additional information can be found in the Final Interconnection Facilities Study Report completed by CAISO in coordination with SCE per the Large Generator Interconnection Procedures issued under the CAISO Tariff. In addition, part of later site engineering will address this as well. Also, CURE may want to address any transmission questions to the CAISO or SCE.

SES Solar One
In Response to CURE Data Requests, Set Two
Data Requests 229-275
08-AFC-13

TECHNICAL AREA: TRANSMISSION/INTERCONNECTION

Data Request 241: Please provide any further studies since March 7, 2006 addressing reactive resource issues raised by construction of the SES One Project.

Response: The Applicant is not aware of any further studies other than discussion that may be contained in the SIS provided as Appendix H in the SES Solar One Application for Certification Volume 2 dated December 1, 2008 or the Final Interconnection Facilities Study Report completed by CAISO in coordination with SCE per the Large Generator Interconnection Procedures issued under the CAISO Tariff. CURE may want to address these transmission questions to the CAISO or SCE.

SES Solar One
In Response to CURE Data Requests, Set Two
Data Requests 229-275
08-AFC-13

TECHNICAL AREA: TRANSMISSION/INTERCONNECTION

Data Request 242: Please explain whether the Applicant agrees that all the SIS listed measures, including 1) converting the Pisgah substation to a 230/500 kV substation, 2) adding two 230/500 kV transformers at Pisgah, 3) converting the Pisgah-Lugo #1 and #2 230 kV lines to a single 500 kV line, and 4) looping an existing 500 kV line into the expanded Pisgah substation, are needed to mitigate the overload effects of the full SES One Project.

Response: The Applicant agreed to all measures directly related to the generation facilities. Activities on the transmission system including the Pisgah Substation are the responsibility of SCE in coordination with the Applicant and the CAISO.

SES Solar One
In Response to CURE Data Requests, Set Two
Data Requests 229-275
08-AFC-13

TECHNICAL AREA: TRANSMISSION/INTERCONNECTION

Data Request 243: If the Applicant does not agree that the SIS listed measures are needed to mitigate effects of the full SES One Project, please provide the Applicant's opinion as to the needed facilities to mitigate overload effects, and any studies underlying the Applicant's opinion.

Response: Not applicable. Please direct these questions to either SCE or the CAISO.

SES Solar One
In Response to CURE Data Requests, Set Two
Data Requests 229-275
08-AFC-13

TECHNICAL AREA: TRANSMISSION/INTERCONNECTION

Data Request 244: Please explain whether a third 230/500 kV transformer will be needed at Lugo to avoid the overloads of the existing two 230/500 kV transformers due to SES One which are described in the SIS.

Response: Please see the attached the Final Interconnection Facilities Study Report provided as attachment TRANS-1, located behind Data Request 229. In addition, CURE may want to contact SCE with its questions.

SES Solar One
In Response to CURE Data Requests, Set Two
Data Requests 229-275
08-AFC-13

TECHNICAL AREA: TRANSMISSION/INTERCONNECTION

Data Request 245: If the Applicant does not believe that a third 230/500 kV transformer will be needed at Lugo to avoid overloads, please explain why not.

Response: Not applicable. Please direct your questions to SCE.

SES Solar One
In Response to CURE Data Requests, Set Two
Data Requests 229-275
08-AFC-13

TECHNICAL AREA: TRANSMISSION/INTERCONNECTION

Data Request 246: Please provide any further studies since March 7, 2006 addressing facility overload issues raised by construction of SES One.

Response: The Applicant is not aware of any further studies other than discussion that may be contained in the SIS provided as Appendix H in the SES Solar One Application for Certification Volume 2 dated December 1, 2008 or the Final Interconnection Facilities Study Report completed by CAISO in coordination with SCE per the Large Generator Interconnection Procedures issued under the CAISO Tariff. CURE may want to address these transmission questions to the CAISO or SCE.

SES Solar One
In Response to CURE Data Requests, Set Two
Data Requests 229-275
08-AFC-13

TECHNICAL AREA: TRANSMISSION/INTERCONNECTION

Data Request 247: Please provide any further studies since March 7, 2006 addressing transient stability issues raised by construction of SES One.

Response: The Applicant is not aware of any further studies other than discussion that may be contained in the SIS provided as Appendix H in the SES Solar One Application for Certification Volume 2 dated December 1, 2008 or the Final Interconnection Facilities Study Report completed by CAISO in coordination with SCE per the Large Generator Interconnection Procedures issued under the CAISO Tariff. CURE may want to address these transmission questions to the CAISO or SCE.

SES Solar One
In Response to CURE Data Requests, Set Two
Data Requests 229-275
08-AFC-13

TECHNICAL AREA: TRANSMISSION/INTERCONNECTION

Data Request 248: Please indicate what measures will be taken to address transient stability issues.

Response: Work to date on transient stability issues is contained in the SIS provided as Appendix H in the SES Solar One Application for Certification Volume 2 dated December 1, 2008. Additional information may be found in the Final Interconnection Facilities Study Report completed by CAISO in coordination with SCE per the Large Generator Interconnection Procedures issued under the CAISO Tariff. In addition, part of later site engineering will address this as well. Also, CURE may want to address any transmission questions to the CAISO or SCE.

SES Solar One
In Response to CURE Data Requests, Set Two
Data Requests 229-275
08-AFC-13

TECHNICAL AREA: TRANSMISSION/INTERCONNECTION

Data Request 249: Please explain whether the Applicant agrees with the SIS that 11-23 breakers will need to be replaced or upgraded due to the SES One Project.

Response: Activities on the transmission system including the Pisgah Substation are the responsibility of SCE in coordination with the CAISO and the Applicant. Please direct your questions to SCE.

SES Solar One
In Response to CURE Data Requests, Set Two
Data Requests 229-275
08-AFC-13

TECHNICAL AREA: TRANSMISSION/INTERCONNECTION

Data Request 250: Please provide any further studies since March 7, 2006 addressing breaker loading issues raised by construction of SES One.

Response: The Applicant is not aware of any further studies other than discussion that may be contained in the SIS provided as Appendix H in the SES Solar One Application for Certification Volume 2 dated December 1, 2008 or the Final Interconnection Facilities Study Report completed by CAISO in coordination with SCE per the Large Generator Interconnection Procedures issued under the CAISO Tariff. CURE may want to address these transmission questions to the CAISO or SCE.

SES Solar One
In Response to CURE Data Requests, Set Two
Data Requests 229-275
08-AFC-13

TECHNICAL AREA: TRANSMISSION/INTERCONNECTION

Data Request 251: Please explain whether the Applicant agrees with the SIS' estimate of \$335 million, in 2010 dollars, as the cost to mitigate the electrical system impacts of the SES One Project.

Response: The Applicant is not aware of any further studies other than discussion that may be contained in the SIS provided as Appendix H in the SES Solar One Application for Certification Volume 2 dated December 1, 2008 or the Final Interconnection Facilities Study Report completed by CAISO in coordination with SCE per the Large Generator Interconnection Procedures issued under the CAISO Tariff. CURE may want to address these transmission questions to the CAISO or SCE.

SES Solar One
In Response to CURE Data Requests, Set Two
Data Requests 229-275
08-AFC-13

TECHNICAL AREA: TRANSMISSION/INTERCONNECTION

Data Request 252: Please provide any further studies since March 7, 2006 addressing cost of mitigation issues raised by construction of SES One.

Response: The Applicant is not aware of any further studies other than discussion that may be contained in the SIS provided as Appendix H in the SES Solar One Application for Certification Volume 2 dated December 1, 2008 or the Final Interconnection Facilities Study Report completed by CAISO in coordination with SCE per the Large Generator Interconnection Procedures issued under the CAISO Tariff. CURE may want to address these transmission questions to the CAISO or SCE.

SES Solar One
In Response to CURE Data Requests, Set Two
Data Requests 229-275
08-AFC-13

TECHNICAL AREA: TRANSMISSION/INTERCONNECTION

Data Request 253: Please indicate how mitigation costs are to be paid, and by whom (e.g., upfront costs paid by the Applicant, with reimbursement over time from SCE; costs borne directly by SCE; costs shared with other renewable resource developers; etc.)

Response: Mitigation costs and payments will be determined by the agencies through consultation with the Applicant. Those costs have not been determined to date.

SES Solar One
In Response to CURE Data Requests, Set Two
Data Requests 229-275
08-AFC-13

TECHNICAL AREA: TRANSMISSION/INTERCONNECTION

Data Request 254: Please provide copies of any documents describing the intended, expected, or the contractually agree-upon costs and/or allocation of costs for transmission system mitigation associated with SES One.

Response: Costs and payments will be determined by the agencies through consultation with the Applicant.

SES Solar One
In Response to CURE Data Requests, Set Two
Data Requests 229-275
08-AFC-13

TECHNICAL AREA: TRANSMISSION/INTERCONNECTION

- Data Request 255:** Please provide the permitting and construction status of the proposed Vincent-Mira Loma 500 kV line, including:
- a. The project proponent
 - b. Required permits
 - c. Status of permitting
 - d. Planned construction start date
 - e. Status of construction
 - f. Planned in-service date
 - g. Source(s) of financing for the line

Response: The Applicant is not involved with the Vincent-Mira Loma 500 kV Line permitting and construction. CURE may want to address these questions to the CAISO or SCE.

SES Solar One
In Response to CURE Data Requests, Set Two
Data Requests 229-275
08-AFC-13

TECHNICAL AREA: TRANSMISSION/INTERCONNECTION

Data Request 256: Please indicate how congestion management would affect the operation of SES One in the following situations:

- a. If the proposed Vincent-Mira Loma line is in operation
- b. If the proposed Vincent-Mira Loma line is not in operation.

Response: According to the SES Solar One SIS, this transmission upgrade was not studied. In this study, SCE did recommend the use of congestion management for SES to limit south of Lugo flows. Since SES is proposing being phased in over time and SCE has identified this portion of the Tehachapi Renewable Transmission Project being built. When the line is built, estimated to be 2011, the amount of congestion management will lessen due to the increase in deliveries from the north into Mira Loma.

Specific information is available through the CAISO and SCE.

SES Solar One
In Response to CURE Data Requests, Set Two
Data Requests 229-275
08-AFC-13

TECHNICAL AREA: TRANSMISSION/INTERCONNECTION

Data Request 257: Please explain whether a final facility study has been completed.

Response: The Final Interconnection Facilities Study Report dated November 2008 was completed by CAISO in coordination with SCE per the Large Generator Interconnection Procedures issued under the CAISO Tariff and is provided as attachment TRANS-1, located behind Data Request 229.

SES Solar One
In Response to CURE Data Requests, Set Two
Data Requests 229-275
08-AFC-13

TECHNICAL AREA: TRANSMISSION/INTERCONNECTION

Data Request 258: Please provide the most recent version (whether draft or final) of a facility study which exists.

Response: The Final Interconnection Facilities Study Report dated November 2008 was completed by CAISO in coordination with SCE per the Large Generator Interconnection Procedures issued under the CAISO Tariff and is provided as attachment TRANS-1 located behind Data Request 229.

SES Solar One
In Response to CURE Data Requests, Set Two
Data Requests 229-275
08-AFC-13

TECHNICAL AREA: TRANSMISSION/INTERCONNECTION

Data Request 259: Please explain the basis for the estimate that the proposed Pisgah-Lugo #2 500 kV line will now use 57.1 miles of existing right of way (ROW) and 9.8 miles of new ROW. Please provide documentation supporting your answer.

Response: Please see the Final Interconnection Facilities Study Report as well as the SIS for information; however, it should be noted that activities on the transmission system including the Pisgah Substation and Pisgah to Lugo upgrade are the responsibility of SCE. Please direct your questions to SCE.

SES Solar One
In Response to CURE Data Requests, Set Two
Data Requests 229-275
08-AFC-13

TECHNICAL AREA: TRANSMISSION/INTERCONNECTION

Data Request 260: Please provide any studies or other documents by SCE (or the ISO or any non-SCE entity proposing the build a Pisgah-Lugo line) which discuss the proposed route, and/or the basis for choosing the route.

Response: The Applicant does not have any other studies than those provided in the AFC or attached herein. It should be noted, however, that activities on the transmission system including the Pisgah to Lugo transmission line are the responsibility of SCE. SCE is responsible for filing required requests to construct transmission line facilities. SCE should be contacted to provide the requested information.

The California Public Utilities Commission (CPUC) regulates privately-owned utilities in the state of California such as SCE.

SES Solar One
In Response to CURE Data Requests, Set Two
Data Requests 229-275
08-AFC-13

TECHNICAL AREA: TRANSMISSION/INTERCONNECTION

Data Request 261: Please provide the basis for the estimate that the Pisgah substation will have to be expanded eightfold, from 5 acres to 40 acres (p.5), to accommodate new facilities needed because of the SES 1 Project.

Response: Please see the Final Interconnection Facilities Study Report and the SIS for information. In addition, efforts pertaining to the Pisgah Substation upgrades and necessary requirements are the responsibility of SCE. SCE should be contacted to provide the requested information.

SES Solar One
In Response to CURE Data Requests, Set Two
Data Requests 229-275
08-AFC-13

TECHNICAL AREA: TRANSMISSION/INTERCONNECTION

Data Request 262: Please provide any studies or other documents by SCE (or the ISO or any non-SCE entity proposing to build a Pisgah-Lugo line) which discuss the proposed substation size and new facilities, and/or the basis for choosing the size or new facilities.

Response: Please see the Final Interconnection Facilities Study Report and the SIS for information. In addition, efforts pertaining to the Pisgah Substation upgrades and necessary requirements are the responsibility of SCE. SCE should be contacted to provide the requested information.

SES Solar One
In Response to CURE Data Requests, Set Two
Data Requests 229-275
08-AFC-13

TECHNICAL AREA: TRANSMISSION/INTERCONNECTION

Data Request 263: Please confirm that the line(s) to be removed include both the Pisgah-Lugo #1 and the Pisgah-Lugo #2 230 kV lines.

Response: Please see the Final Interconnection Facilities Study Report and the SIS for information. In addition, efforts pertaining to the Pisgah Substation upgrades and necessary requirements are the responsibility of SCE. SCE should be contacted to provide the requested information.

SES Solar One
In Response to CURE Data Requests, Set Two
Data Requests 229-275
08-AFC-13

TECHNICAL AREA: TRANSMISSION/INTERCONNECTION

Data Request 264: Please provide the most recent study which explains why the existing lines need to be removed.

Response: Please see the Final Interconnection Facilities Study Report and the SIS for information. In addition, efforts pertaining to the Pisgah Substation upgrades and necessary requirements are the responsibility of SCE. SCE should be contacted to provide the requested information.

SES Solar One
In Response to CURE Data Requests, Set Two
Data Requests 229-275
08-AFC-13

TECHNICAL AREA: TRANSMISSION/INTERCONNECTION

Data Request 265: Please provide the net increase in deliverability from Pisgah (under N-1 conditions) due to adding a new line and removing two existing lines.

Response: Please see the Final Interconnection Facilities Study Report and the SIS for information. In addition, efforts pertaining to the Pisgah Substation upgrades and necessary requirements are the responsibility of SCE. SCE should be contacted to provide the requested information.

SES Solar One
In Response to CURE Data Requests, Set Two
Data Requests 229-275
08-AFC-13

TECHNICAL AREA: TRANSMISSION/INTERCONNECTION

Data Request 266: Please explain whether and how it will be possible to add a new 500 kV line from Pisgah to Lugo prior to removing the existing 230 kV lines in the same corridor, without either (a) construction activities, or (b) the new line itself going outside of the existing ROW.

Response: Please see the Final Interconnection Facilities Study Report and the SIS for information. In addition, efforts pertaining to the Pisgah Substation upgrades and necessary requirements are the responsibility of SCE. SCE should be contacted to provide the requested information.

SES Solar One
In Response to CURE Data Requests, Set Two
Data Requests 229-275
08-AFC-13

TECHNICAL AREA: TRANSMISSION/INTERCONNECTION

Data Request 267: Please explain when consultation between the USFWS and the Bureau of Land Management will begin?

Response: The CPUC regulates privately-owned utilities in the state of California including SCE. SCE is responsible for filing required requests for permitting of transmission line facilities. Section 7 Consultation with the USFWS and BLM will likely occur during CPUC processing, and will be performed through SCE. SCE should be contacted for timing on their filings and consultations.

SES Solar One
In Response to CURE Data Requests, Set Two
Data Requests 229-275
08-AFC-13

TECHNICAL AREA: TRANSMISSION/INTERCONNECTION

Data Request 268: Please explain when consultation is expected to be complete?

Response: The CPUC regulates privately-owned utilities in the state of California including SCE. SCE is responsible for filing required requests for permitting of transmission line facilities. Section 7 Consultation with the USFWS and BLM will likely occur during CPUC processing, and will be performed through SCE. SCE should be contacted for timing on their filings and consultations.

SES Solar One
In Response to CURE Data Requests, Set Two
Data Requests 229-275
08-AFC-13

TECHNICAL AREA: TRANSMISSION/INTERCONNECTION

Data Request 269: Please provide any documents from either the Applicant or the USFWS which address consultation or issues raised by it.

Response: The CPUC regulates privately-owned utilities in the state of California including SCE. SCE is responsible for filing required requests for permitting of transmission line facilities. Section 7 Consultation with the USFWS and BLM will likely occur during CPUC processing, and will be performed through SCE. SCE should be contacted for timing on their filings and consultations.

SES Solar One
In Response to CURE Data Requests, Set Two
Data Requests 229-275
08-AFC-13

TECHNICAL AREA: TRANSMISSION/INTERCONNECTION

Data Request 270: Please explain when cultural resource studies began (or are expected to begin).

Response: The CPUC regulates privately-owned utilities in the state of California including SCE. SCE is responsible for filing required requests for permitting of transmission line facilities. SCE should be contacted to provide the requested information.

SES Solar One
In Response to CURE Data Requests, Set Two
Data Requests 229-275
08-AFC-13

TECHNICAL AREA: TRANSMISSION/INTERCONNECTION

Data Request 271: Please explain when cultural resource studies are expected to be complete.

Response: The CPUC regulates privately-owned utilities in the state of California including SCE. SCE is responsible for filing required requests for permitting of transmission line facilities. SCE should be contacted to provide the requested information.

SES Solar One
In Response to CURE Data Requests, Set Two
Data Requests 229-275
08-AFC-13

TECHNICAL AREA: TRANSMISSION/INTERCONNECTION

Data Request 272: Please provide any documents created or published since November 21, 2008 which address cultural resource issues associated with a new transmission line from Pisgah to Lugo.

Response: The CPUC regulates privately-owned utilities in the state of California including SCE. SCE is responsible for filing required requests for permitting of transmission line facilities. SCE should be contacted to provide the requested information.

SES Solar One
In Response to CURE Data Requests, Set Two
Data Requests 229-275
08-AFC-13

TECHNICAL AREA: TRANSMISSION/INTERCONNECTION

Data Request 273: If no route has been selected for the proposed Pisgah-Lugo 500 kV line, please explain how Appendix EE is able to identify, to the tenth of a mile, where the proposed line will lie inside existing Row, where it will require new ROW, and where it will cross the Mohave River.

Response: Appendix EE is based on data and information provided by SCE and available data at federal, county, and local departments as well as existing environmental analysis and reports that have been tiered from and referenced to provide a summary of potential environmental impacts associated with the construction, operation, maintenance and de-commission of the proposed Lugo-Pisgah 500 kV transmission Line and Substation project.

SCE is responsible for filing required requests for permitting of transmission line facilities. SCE should be contacted to provide the requested information.

SES Solar One
In Response to CURE Data Requests, Set Two
Data Requests 229-275
08-AFC-13

TECHNICAL AREA: TRANSMISSION/INTERCONNECTION

Data Request 274: Please explain how the proposed new line will be built, and the existing 230 kV line removed, while staying within the existing ROW and avoiding any impacts to the Rodman Mountains Wilderness.

Response: The CPUC regulates privately-owned utilities in the state of California including SCE. SCE is responsible for filing required requests for permitting of transmission line facilities. SCE should be contacted to provide the requested information.

SES Solar One
In Response to CURE Data Requests, Set Two
Data Requests 229-275
08-AFC-13

TECHNICAL AREA: TRANSMISSION/INTERCONNECTION

Data Request 275: Please explain whether the new line, and the proposed removal of the existing line, are intended to occur entirely within the existing ROW where the ROW crosses an ACEC.

Response: The CPUC regulates privately-owned utilities in the state of California including SCE. SCE is responsible for filing required requests for permitting of transmission line facilities. SCE should be contacted to provide the requested information.



**BEFORE THE ENERGY RESOURCES CONSERVATION AND DEVELOPMENT
COMMISSION OF THE STATE OF CALIFORNIA
1516 NINTH STREET, SACRAMENTO, CA 95814
1-800-822-6228 – WWW.ENERGY.CA.GOV**

**APPLICATION FOR CERTIFICATION
For the SES SOLAR ONE PROJECT**

Docket No. 08-AFC-13

PROOF OF SERVICE

(Revised 7/20/09)

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DECLARATION OF SERVICE

I, Corinne Lytle declare that on Aug. 13, 2009, I served and filed copies of the attached Applicant's Responses to CURE Data Requests Set 2: Data Requests 229-275. The original document, filed with the Docket Unit, is accompanied by a copy of the most recent Proof of Service list, located on the web page for this project at: [www.energy.ca.gov/sitingcases/solarone].

The document has been sent to both the other parties in this proceeding (as shown on the Proof of Service list) and to the Commission's Docket Unit, in the following manner:

(Check all that Apply)

FOR SERVICE TO ALL OTHER PARTIES:

X sent electronically to all email addresses on the Proof of Service list;

X by personal delivery or by depositing in the United States mail at _____ with first-class postage thereon fully prepaid and addressed as provided on the Proof of Service list above to those addresses NOT marked "email preferred."

AND

FOR FILING WITH THE ENERGY COMMISSION:

X sending an original paper copy and one electronic copy, mailed and emailed respectively, to the address below (preferred method);

OR

_____ depositing in the mail an original and 12 paper copies, as follows:

CALIFORNIA ENERGY COMMISSION

Attn: Docket No. 08-AFC-13

1516 Ninth Street, MS-4

Sacramento, CA 95814-5512

docket@energy.state.ca.us

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

Original Signed By

Corinne Lytle