

An EDISON INTERNATIONAL® Company

Jackson P. Horne Southern California Edison Company 2244 Walnut Grove Ave. Rosemead, CA 91770
 DOCKET

 07-AFC-5

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September 2, 2010

VIA EMAIL

Jeffrey D. Byron, Commissioner and Presiding Member, Ivanpah Application for Certification Committee
James D. Boyd, Vice Chair and Associate Member, Ivanpah Application for Certification Committee
California Energy Commission
1516 Ninth St.
Sacramento, CA 95814

Re: Docket Number 07-AFC-5: Presiding Member's Proposed Decision for the Ivanpah Solar Electric Generating System

Dear Commissioner Byron and Vice Chair Boyd:

On behalf of Southern California Edison Company (SCE), I am submitting these comments on the Presiding Member's Proposed Decision for the Ivanpah Solar Electric Generating System (ISEGS), Docket Number 07-AFC-5. These comments propose clarifications regarding the Proposed Decision's references to the interconnection requested by the ISEGS applicant (Applicant) to the transmission system controlled by the California Independent System Operator (California ISO) and owned by SCE. SCE respectfully requests that the California Energy Commission (Commission) incorporate these clarifications into the Final Decision for ISEGS.

1. Project Description: Transmission System Interconnection

Section I of the Proposed Decision includes information on the interconnection of ISEGS to the California ISO-controlled transmission system owned by SCE system. This information appears on page 8 of Section I and reads:

In accordance with the Interconnection Agreement between the Applicant and SCE, the existing Eldorado-Baker-Cool Water-Dunn Siding-Mountain Pass 115-kV line would loop in and out through the proposed Ivanpah Substation to interconnect the project to the SCE transmission grid. This 115-kV line is currently aligned between the Ivanpah 1 and 2 sites along a northeast-southwest right-of-way. In order to accommodate the total anticipated 1,400 MW load generation by ISEGS and five other planned renewable energy generation projects in the region, the California Independent System Operator (California ISO) has

identified approximately 36 miles of transmission line within California and Nevada that would need to be upgraded from 115 kV to 220 kV. SCE is in the process of developing a project to upgrade the transmission system, which includes removing the existing 115-kV transmission lines and constructing a new double-circuit 220-kV transmission line between the existing Eldorado Substation in Nevada and the proposed SCE Ivanpah Substation in California. (Ex. 300, p. 3-13.)

Proposed Decision § I at 8. This information does not correctly describe the interconnection agreement or the purpose of upgrades to the California ISO-controlled transmission system owned by SCE.

First, the interconnection agreement is between the Applicant, California ISO, and SCE; it is not between the Applicant and SCE only.¹ The interconnection agreement was made in response to a request by the Applicant to interconnect to the California ISO-controlled grid.²

Second, the purpose of upgrades to the SCE-owned transmission system is *not* to accommodate load generation by ISEGS and five other planned renewable energy generation projects in the region. As SCE has documented in the Proponent's Environmental Assessment (PEA) for the proceedings regarding the upgrades before the California Public Utilities Commission (CPUC), the purpose of the upgrades includes interconnecting and delivering up to 1,400 MW of renewable resources located in the Ivanpah Dry Lake Area to the California ISO-controlled grid. Specifically, the PEA identifies the purpose of the upgrades as follows:

- 1. Comply with the state-mandated Renewables Portfolio Standard (RPS) (i.e., 20 percent renewable by year 2010 per California Senate Bill 107) in an orderly, rational, and cost-effective manner, while also considering the need for maintaining reliable electric service during the upgrade and/or construction of new facilities[.]
- 2. Integrate planned renewable generation resources, including up to 1,400 MW from the Ivanpah Dry Lake Area with a Power Purchase Agreement (PPA) executed by a California Public Utilities Commission (CPUC) jurisdictional Private Transmission Owners (PTO), in a manner that minimizes potential environmental impacts and impacts to existing and planned residences, where feasible, by maximizing the use of existing transmission corridors in order to:

¹ Enclosed as Attachments 1-3 are excerpts from the Large Generation Interconnection Agreements (LGIAs) between the Applicant, California ISO, and SCE. Attachment 1, Excerpt from LGIA Among Solar Partners I, LLC; SCE; and California ISO (Feb. 12, 2010); Attachment 2, Excerpt from LGIA Among Solar Partners II, LLC; SCE; and California ISO (Aug. 2, 2010); Attachment 3, Excerpt from LGIA Among Solar Partners VIII, LLC; SCE; and California ISO (Aug. 5, 2010).

² See Attachments 1-3.

- a) maximize the use of existing, previously disturbed transmission line right-of-way (ROW) to minimize effect on previously undisturbed land and resources[;]
- b) select route and tower locations with the lowest potential for environmental impacts while still meeting the Proposed Project objectives[; and]
- c) select the shortest feasible route that minimizes environmental impacts and Proposed Project costs[.]
- 3. Interconnect and deliver energy from up to 1,400 MW of renewable resources located in the Ivanpah Dry Lake Area in a way that complies with all applicable North American Electric Reliability Council (NERC) / Western Electric Coordinating Council (WECC) Planning Standards, in a manner that minimize transmission line crossings[.]
- 4. Support the State of California Greenhouse Gas Reduction Program[.]
- 5. Assist the BLM in meeting the federal directive to develop 10,000 MW of renewable generation[.]

PEA, Eldorado-Ivanpah 220 kV Transmission Project, CPUC, Application No. 09-05-027, submitted by SCE May 28, 2009, at 1-1 to 1-2.³

Third, SCE—and not the California ISO—identified the specific transmission upgrades to interconnect and deliver up to 1,400 MW of renewable resources located in the Ivanpah Dry Lake Area to the California ISO-controlled grid. PEA at 1-1 to 1-5.⁴

In light of these clarifications, SCE requests that the Commission revise the information on page 8 of Section I in the Proposed Decision as follows:

In accordance with the Interconnection Agreement between the Applicant, the <u>California Independent System Operator (California ISO)</u>, and SCE, the existing Eldorado-Baker-Cool Water-Dunn Siding-Mountain Pass 115- kV line would loop in and out through the proposed Ivanpah Substation to <u>enable</u> interconnection of the project to the SCE transmission grid <u>as requested by the Applicant</u>. This 115-kV line is currently aligned between the Ivanpah <u>#1</u> and <u>#2</u> sites along a northeast-southwest right-of-way. In order to accommodate <u>up to the total anticipated 1,400 MW of load generation by ISEGS and five other planned renewable energy generation projects in the region that may seek interconnection to the California ISO-controlled transmission system owned by SCE in the Ivanpah Dry Lake Area, the California Independent System Operator (California ISO) SCE has identified approximately 36 miles of transmission line within</u>

³ Enclosed as part of Attachment 4 is the relevant excerpt from the PEA.

⁴ See Attachment 4.

California and Nevada that would need to be upgraded from 115 kV to 220 kV. SCE is in the process of developing a project to upgrade the transmission system, which includes removing the existing 115-kV transmission lines and constructing a new double-circuit 220-kV transmission line between the existing Eldorado Substation in Nevada and the proposed SCE Ivanpah Substation in California. (Ex. 300, p. 3-13.)

2. Analysis of Interconnecting ISEGS to the California ISO-Controlled Transmission System Owned by SCE

Page 2 of Section IV(D) of the Proposed Decision discusses analysis of impacts of interconnecting ISEGS to the California ISO-controlled transmission system owned by SCE. SCE requests that the Commission revise this discussion to: (1) clarify that interconnecting ISEGS to the California ISO-controlled transmission system owned by SCE is in response to a request by the Applicant; and (2) describe the system impacts studies that the California ISO and SCE performed at the request of the Applicant accurately. The requested revisions, which are based on the system impact studies, are as follows:

For the interconnection of this proposed project to the grid <u>California ISO</u>-<u>controlled transmission system owned by SCE as requested by the Applicant</u>, the <u>California ISO and SCE</u> interconnecting utility (SCE) and the control area operator (California ISO) are responsible for ensuring grid reliability. These two entities determine the transmission system impacts of <u>interconnecting</u> the proposed project <u>as requested by the Applicant</u> and any mitigation measures needed to ensure system conformance with utility reliability criteria, National Electric Reliability Corporation (NERC) planning standards, Western Electricity Coordinating Council (WECC) reliability criteria, and California ISO reliability criteria. System impact and facilities studies are used to determine the impacts of <u>interconnecting</u> the proposed project on the transmission grid to the California ISO-controlled transmission system owned by SCE as requested by the Applicant.

The system impact studies were performed by the California ISO and SCE at the request of the Applicant, to identify the transmission system impacts of interconnecting Ivanpah #1, #2, and #3 on SCE's 115/220/500-kV system to the California ISO-controlled transmission system owned by SCE as requested by the Applicant. The studies included power flow, sensitivity, and short circuit studies, and transient stability and post-transient voltage analyses (Ivanpah #1, #2 and #3, 2008a, System Impact Studies). The studies modeled the proposed project for a net output of 100 MW for Ivanpah #1, 114 MW for Ivanpah and #2, and 200 MW for Ivanpah #3. The California ISO-approved base cases used for these studies modeled the entire WECC electric system and included all California ISO-CAISO approved major SCE transmission projects, the transmission system for the Los Angeles Department of Water and Power, and major path flow limits of Southern California Import Transmission, East-Of-River, and West-of-River. The studies considered light load conditions with generation patterns and Path 46 imports maximized to identify the extent of potential congestion and fully stress the SCE system in the area where the Ivanpah project phases are interconnecting. The

detailed study assumptions are described in the <u>system impact</u> studies. The power flow studies were conducted with and without <u>the</u> Ivanpah phases connected to SCE's grid at the proposed Ivanpah Substation, using 2013 heavy summer and 2013 light spring base cases. (Ex. 300, pp. 7.4-5 – 7.4-6.)

3. Power Flow Study Results and Mitigation Measures

Page 4 of Section IV(D)(2)(a) of the Proposed Decision discusses power flow study results and mitigation measures. This discussion omits results and mitigation measures associated with Ivanpah #1 and #2. SCE requests that the Commission add the following information, which is based on the system impact studies that the California ISO and SCE performed at the request of the Applicant, to the discussion at the end of Section IV(D)(2)(a):

<u>Single Outage Contingency (N-1)</u>: With the Base Case (N-0) mitigation in place, the loss of the new 36-mile Eldorado-Ivanpah 220 kV transmission line (modeled as energized at 115 kV Ivanpah #1 and #2) or loss of the Eldorado 220/115 kV transformer bank, N-1 contingency condition, would disconnect the Ivanpah and Mountain Pass areas from the Eldorado substation thereby triggering thermal overload, transient instability, and voltage collapse problems.

<u>Mitigation:</u>

 Install telecommunication facilities and corresponding protection relays for line monitoring and data communication needed to implement an SPS to trip Ivanpah #1 and #2 following loss of the Eldorado-Ivanpah 220 kV transmission line (modeled as energized at 115 kV Ivanpah #1 and #2) or loss of the Eldorado 220/115 kV transformer bank.

4. Special Protection System Actions

Page 5 of Section IV(D)(2)(b) of the Proposed Decision describes the actions of the Special Protection System (SPS). SCE requests that the Commission make the following two clarifications to ensure accurate description of SPS actions:

<u>Mitigation:</u> The A previously implemented SPS for Ivanpah #1 and #2 will need to be modified to reflect the changes associated with the facility upgrades triggered by Ivanpah #3. The SPS should be capable of tripping Mountain Pass 115 kV line, the new Ivanpah substation, the new Ivanpah 220 kV transmission line and Ivanpah #1, #2, and #3 following loss of the new 36-mile Eldorado-Ivanpah 220 kV transmission line.

<u>Single Outage Contingency (N-1)</u>: Loss of one Ivanpah 115/220 kV transformer bank results in loading the remaining transformer bank beyond its maximum emergency capability.

<u>Mitigation</u>: The Modify a previously implemented SPS for Ivanpah #1 and #2 will be expanded to be capable of tripping Mountain Pass 115 kV new Ivanpah

substation, New Ivanpah 220 kV transmission line or Ivanpah #3 of the project under loss of one Ivanpah 115/220 kV transformer bank by opening the corresponding unit circuit breaker. (Ex. 300, p. 7.4-7.)

Please let me know if you have any questions about the clarifications that SCE requests. Thank you for your consideration of these comments.

Sincerely,

Jackson P. Horne Southern California Edison Company

ATTACHMENT 1



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James A. Cuillier Director of FERC Rates & Regulation

February 12, 2010

Ms. Kimberly D. Bose, Secretary Federal Energy Regulatory Commission 888 First Street, N.E. Washington, DC 20426

Dear Ms. Bose:

Pursuant to Section 35.13 of the Federal Energy Regulatory Commission's ("Commission" or "FERC") Regulations under the Federal Power Act (18 C.F.R. § 35.13), Southern California Edison Company ("SCE" or "Participating TO") tenders for filing the Large Generator Interconnection Agreement ("LGIA") among Solar Partners I, LLC ("Interconnection Customer"), SCE, and the California Independent System Operator Corporation ("CAISO").

In addition, in accordance with Section 35.15 and pursuant to Section 35.13 of the Commission's Regulations, SCE also tenders for filing revised rate sheets ("Revised Sheets") reflecting the cancellation of letter agreements ("Letter Agreements") between SCE and BrightSource Energy, Service Agreement Nos. 53 and 54 under SCE's Transmission Owner Tariff, FERC Electric Tariff, Second Revised Volume No. 6.

The documents submitted with this filing consist of this letter of transmittal and all attachments hereto, the LGIA, and the Revised Sheets reflecting the notice of cancellation of the Letter Agreements.

Background

The Interconnection Customer applied to the CAISO to interconnect its proposed 100 MW solar thermal generating facility ("DPT 1 Project"), to be located in San Bernardino County, California about six miles west of the California/Nevada border in the Ivanpah Valley, to SCE's Eldorado – Baker – Cool Water – Dunn Siding – Mountain Ms. Kimberly D. Bose, Secretary Federal Energy Regulatory Commission Page 2 February 12, 2010

Pass 115 kV line via a new substation to be located approximately seven (7) miles east of SCE's existing Mountain Pass Substation (hereinafter referred to as "Ivanpah Substation") and transmit Energy and/or Ancillary Services to the ISO Controlled Grid. The requisite studies under the CAISO's Large Generator Interconnection Procedures were performed which identified the system modifications and/or additions to SCE's electrical system that are necessary to interconnect the DPT 1 Project.

LGIA

The LGIA utilizes the CAISO's currently-effective pro forma Large Generator Interconnection Agreement and specifies the terms and conditions pursuant to which SCE and the CAISO will provide Interconnection Service;¹ SCE will design, procure, construct, install, own, operate and maintain the Participating TO's Interconnection Facilities, Participating TO's Reliability Network Upgrades, Participating TO's Delivery Network Upgrades, and Distribution Upgrades; and pursuant to which Interconnection Customer will pay for such facilities. The Participating TO's Interconnection Facilities, Participating TO's Reliability Network Upgrades, Participating TO's Delivery Network Upgrades, and Distribution Upgrades, as described in Sections 1(b), 2(b)(i), 2(b)(ii) and 3, respectively, of Appendix A to the LGIA, are those facilities necessary to safely and reliably interconnect the DPT 1 Project to SCE's electrical system.

The Network Upgrades specified in Section 2 and the Distribution Upgrades specified in Section 3 of Appendix A to the LGIA comprise part of SCE's proposed Eldorado-Ivanpah Transmission Project ("EITP"), SCE's master plan to connect up to 1,400 MW of renewable generation in this area of Southern California to the CAISO Controlled Grid. SCE has committed to up-front finance the network components of EITP, including the Network Upgrades and Distribution Upgrades contingent upon: (i) SCE's receipt of a Commission order that it can recover 100 percent of its

¹ All capitalized terms used herein, and not otherwise defined, have the meanings ascribed to such terms in the LGIA.

Ms. Kimberly D. Bose, Secretary Federal Energy Regulatory Commission Page 3 February 12, 2010

prudently incurred costs for EITP if such project is abandoned due to circumstances outside of SCE's control ("Abandoned Plant Approval"); and (ii) achievement of the development milestones by the Interconnection Customer set forth in Section 12(d) of Appendix A to the LGIA. SCE filed a request for Abandoned Plant Approval and other incentives for the EITP in a Petition for Declaratory Order filed in Docket EL10-1-000. FERC conditionally granted SCE's petition in an order issued on December 17, 2009 in that docket.² If the conditions outlined in the order are not met, then the LGIA will be amended such that the Interconnection Customer will be responsible to up-front finance costs associated with the Network Upgrades, and potential receipt of transmission credits for such costs in accordance with Article 11.4 of the LGIA.

Pursuant to Section 12 of Appendix A to the LGIA, the Interconnection Customer will be responsible for the Interconnection Facilities Payment. The Interconnection Facilities Payment compensates SCE for the capitalized costs incurred by SCE associated with the engineering, design, procurement, construction and installation of the Participating TO's Interconnection Facilities, including any non-capitalized costs associated with such facilities. The Interconnection Facilities Payment is estimated to be \$1,119,000.00, as set forth in Appendix A, Section 16, to the LGIA.

Following the Interconnection Facilities Completion Date, the Interconnection Customer will pay to SCE a monthly Interconnection Facilities Charge to recover the ongoing revenue requirements for the Participating TO's Interconnection Facilities. The Interconnection Facilities Charge is \$4,252.20 per month and is calculated as the product of the Customer-Financed Monthly Rate and the Interconnection Facilities Cost (0.38% x \$1,119,000.00). The Customer-Financed Monthly Rate is the rate most recently adopted by the California Public Utilities Commission ("CPUC") for application to SCE's retail electric customers for customer-financed added facilities, which does not compensate

² 129 FERC ¶ 61,246.

Ms. Kimberly D. Bose, Secretary Federal Energy Regulatory Commission Page 4 February 12, 2010

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SCE for replacement of added facilities. Currently, this rate is 0.38%. Use of the CPUC rate is consistent with the SCE rate methodology accepted for filing by the Commission in Docket No. ER10-223-000. SCE provided cost justification for this rate in Docket No. ER09-1345-000.

A table showing the estimated revenues SCE will collect under the LGIA during the first 12 billing months is provided in Attachment A to this filing letter.

As set forth in Article 2.1, the LGIA will become effective upon execution subject to acceptance by the Commission.

Notice of Cancellation of the Letter Agreements

The Letter Agreements provided an interim arrangement pursuant to which (i) SCE would commence performance of certain initial land studies and environmental analyses for the Network Upgrades, and (ii) the Interconnection Customer would provide necessary funding for such activities, prior to the execution of the LGIA in order to expedite the interconnection. The Letter Agreements each state that they will terminate upon the effective date of the LGIA. Amounts paid under the Letter Agreements will be refunded to the Interconnection Customer in accordance with Section 12(e) of Appendix A to the LGIA.

Waiver

SCE respectfully requests, pursuant to Section 35.11 of the Commission's regulations, waiver of the 60-day prior notice requirement specified in Section 35.3 and requests the Commission to assign an effective date of February 13, 2010 to the LGIA and the Revised Sheets, which is one day after the date of this filing. Such waiver would be consistent with the Commission's policy set forth in <u>Central Hudson Gas & Electric</u> <u>Corp., et al., 60 FERC ¶ 61,106, reh'g denied, 61 FERC 61,089 (1992), that waiver of the constant of the term.</u>

Ms. Kimberly D. Bose, Secretary Federal Energy Regulatory Commission Page 5 February 12, 2010

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60-day prior notice requirement will generally be granted where good cause is shown and the agreement is filed prior to the commencement of service. Good cause exists in that such waiver will enable SCE to commence engineering, design and procurement of the facilities necessary to interconnect the DPT 1 Project to the CAISO Controlled Grid by the Interconnection Customers' requested Initial Synchronization Date, thus facilitating the availability of power to customers in Southern California. The granting of such waiver will not have any impact on SCE's other rate schedules.

Other Filing Requirements

No expenses or costs included in the rates tendered herein have been alleged or judged in any administrative or judicial proceeding to be illegal, duplicative, or unnecessary costs that are demonstrably the product of discriminatory employment practices.

SCE believes that the data contained in this letter provide sufficient information upon which to accept this filing; however, to the extent necessary, SCE requests that the Commission waive its filing requirements contained in Sections 35.5 and 35.13 of the Commission's regulations.

SCE believes this filing conforms to any rule of general applicability and to any Commission order specifically applicable to SCE, and has made copies of this letter and all enclosures available for public inspection in SCE's principal office located in Rosemead, California. SCE has mailed copies to those persons whose names appear on the mailing list enclosed.

SCE requests that all correspondence, pleadings, and other communications concerning this filing be served upon:

Ms. Kimberly D. Bose, Secretary Federal Energy Regulatory Commission Page 6 February 12, 2010

> Rebecca Furman Attorney Southern California Edison Company P.O. Box 800 2244 Walnut Grove Avenue Rosemead, California 91770

SCE also requests that an additional copy of any correspondence and orders be sent to the undersigned.

Very truly yours,

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JAMES A. CUILLIER

Enclosures

ATTACHMENT 2



James A. Cuillier Director FERC Rates & Regulation

August 2, 2010

Ms. Kimberly D. Bose, Secretary Federal Energy Regulatory Commission 888 First Street, N.E. Washington, DC 20426

Dear Ms. Bose:

Pursuant to Section 35.13 of the Federal Energy Regulatory Commission's ("Commission" or "FERC") Regulations under the Federal Power Act (18 C.F.R. § 35.13), Southern California Edison Company ("SCE" or "Participating TO") tenders for filing the Standard Large Generator Interconnection Agreement ("LGIA") among Solar Partners II, LLC ("Interconnection Customer"), SCE, and the California Independent System Operator Corporation ("CAISO").

The documents submitted with this filing consist of this letter of transmittal and all attachments hereto, and the LGIA.

Background

The Interconnection Customer applied to the CAISO to interconnect its proposed 120 MW solar generating facility ("DPT 2 Project"), to be located in San Bernardino County, California about six miles west of the California/Nevada border, to SCE's proposed Ivanpah Substation and transmit Energy and/or Ancillary Services to the CAISO Controlled Grid. The requisite studies under the CAISO's Large Generator Interconnection Procedures were performed which identified the system modifications and/or additions to SCE's electrical system that are necessary to interconnect the DPT 2 Project.

P.O. Box 800 2244 Walnut Grove Ave. Rosemead, CA 91770 Ms. Kimberly D. Bose, Secretary Federal Energy Regulatory Commission Page 2 August 2, 2010

Ivanpah Substation is a component of SCE's Eldorado-Ivanpah Transmission Project ("EITP"). As described in SCE's Petition for Declaratory Order in Docket No. EL10-1-000 ("Incentives Petition"), the EITP will be constructed to interconnect needed solar generation in the Ivanpah Dry Lake area. The EITP will allow interconnection of up to 1,400 MW of renewable generation, which is pending in the CAISO generator interconnection queue. The DPT2 Project will be the second project for which a large generator interconnection agreement has been executed to interconnect to the EITP.

The first project for which a large generator interconnection agreement has been executed to interconnect to the EITP is the subject of a large generator interconnection agreement with Solar Partners I, LLC ("Solar Partners I") filed in Docket No. ER10-732. In that agreement, which is still pending before the Commission, SCE agreed to fund the transmission upgrades identified therein to interconnect Solar Partner I's generating facility contingent upon receipt of assurance from FERC that SCE may recover 100 percent of its prudently-incurred costs for the EITP if the project is abandoned due to circumstances out of SCE's control ("Abandoned Plant Approval"). FERC conditionally granted SCE's request for Abandoned Plant Approval in an order issued on SCE's Incentives Petition dated December 17, 2009 in Docket No. EL10-1-000.¹

<u>LGIA</u>

The LGIA utilizes the CAISO's currently-effective pro forma Large Generator Interconnection Agreement and specifies the terms and conditions pursuant to which SCE and the CAISO will provide Interconnection Service;² SCE will design, procure, construct, install, own, operate and maintain the Participating TO's Interconnection Facilities and pursuant to which Interconnection Customer will pay for such facilities. The Participating TO's Interconnection Facilities, as described in Sections 1(b) of

¹ 129 FERC ¶ 61,246.

 $^{^{2}}$ All capitalized terms used herein, and not otherwise defined, have the meanings ascribed to such terms in the LGIA.

Ms. Kimberly D. Bose, Secretary Federal Energy Regulatory Commission Page 3 August 2, 2010

Appendix A to the LGIA, are those facilities necessary to safely and reliably interconnect the DPT 2 Project to SCE's electrical system.

Interconnection of the DPT 2 Project is dependent upon the completion of certain components of the EITP. Solar Partners I's generating facility triggers the need for such facilities. In the event that Solar Partners I terminates or suspends work under its interconnection agreement and SCE does not receive Abandoned Plant Approval for the EITP, then the LGIA will be amended such that the Interconnection Customer will be responsible to up-front finance costs associated with the network upgrades identified in Section 17(a) of Appendix 1 to the LGIA. The LGIA provides for this contingency by including provisions in the appendices to the LGIA that may be interpreted as differing from the CAISO's pro forma large generator interconnection agreement as they relate to SCE's commitment to fund the network upgrades.³ SCE justified these provisions are non-conforming to the CAISO's pro forma large generator interconnection agreement, SCE anticipates that the CAISO will make its own filing of this LGIA shortly, accompanied by a request that the Commission's review of the CAISO's filing be consolidated with its review of this filing.

Pursuant to Section 12 of Appendix A to the LGIA, the Interconnection Customer will be responsible for the Interconnection Facilities Payment. The Interconnection Facilities Payment compensates SCE for the capitalized costs incurred by SCE associated with the engineering, design, procurement, construction and installation of the

³ E.g., Appendix A, Section 7, Additional Definitions, includes a definition for Abandoned Plant Approval; Section 12(d) Charges, includes development milestones to ensure that transmission will not be developed before or in absence of generation; and Sections 12(f), (g), (h), and (i) set forth provisions that will apply if Abandoned Plant Approval is not received.

⁴ SCE also filed for rehearing in Docket No. ER10-732 regarding the order to remove the termination provisions from the LGIA. SCE has not yet received an order on its rehearing request. Therefore, this LGIA retains the pro forma termination provisions. To the extent that the Commission orders changes concerning the issues on rehearing in Docket No. ER10-732, SCE would conform this LGIA to that order.

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Participating TO's Interconnection Facilities, including any non-capitalized costs associated with such facilities. The Interconnection Facilities Payment is estimated to be \$1,119,000.00, as set forth in Appendix A, Section 16, to the LGIA.

Following the Interconnection Facilities Completion Date, the Interconnection Customer will pay to SCE a monthly Interconnection Facilities Charge to recover the ongoing revenue requirements for the Participating TO's Interconnection Facilities. The Interconnection Facilities Charge is \$4,252.20 per month and is calculated as the product of the Customer-Financed Monthly Rate and the Interconnection Facilities Cost (0.38% x \$1,119,000.00). The Customer-Financed Monthly Rate is the rate most recently adopted by the California Public Utilities Commission ("CPUC") for application to SCE's retail electric customers for customer-financed added facilities, which does not compensate SCE for replacement of added facilities. Currently, this rate is 0.38%. Use of the CPUC rate is consistent with the SCE rate methodology accepted for filing by the Commission in prior large generator interconnection agreement dockets. SCE provided cost justification for this rate in Docket No. ER10-1435-000.

A table showing the estimated revenues SCE will collect under the LGIA during the first 12 billing months is provided in Attachment A to this filing letter.

As set forth in Article 2.1, the LGIA will become effective upon execution subject to acceptance by the Commission.

Waiver

SCE respectfully requests, pursuant to Section 35.11 of the Commission's regulations, waiver of the 60-day prior notice requirement specified in Section 35.3 and requests the Commission to assign an effective date of August 3, 2010 to the LGIA, which is one day after the date of this filing. Such waiver would be consistent with the Commission's policy set forth in Central Hudson Gas & Electric Corp., et al., 60 FERC ¶

Ms. Kimberly D. Bose, Secretary Federal Energy Regulatory Commission Page 5 August 2, 2010

61,106, reh'g denied, 61 FERC 61,089 (1992), that waiver of the 60-day prior notice requirement will generally be granted where good cause is shown and the agreement is filed prior to the commencement of service. Good cause exists in that such waiver will enable SCE to commence engineering, design and procurement of the facilities necessary to interconnect the DPT 2 Project to the CAISO Controlled Grid by the Interconnection Customers' requested Initial Synchronization Date, thus facilitating the availability of power to customers in Southern California. The granting of such waiver will not have any impact on SCE's other rate schedules.

Other Filing Requirements

No expenses or costs included in the rates tendered herein have been alleged or judged in any administrative or judicial proceeding to be illegal, duplicative, or unnecessary costs that are demonstrably the product of discriminatory employment practices.

SCE believes that the data contained in this letter provide sufficient information upon which to accept this filing; however, to the extent necessary, SCE requests that the Commission waive its filing requirements contained in Sections 35.5 and 35.13 of the Commission's regulations.

SCE believes this filing conforms to any rule of general applicability and to any Commission order specifically applicable to SCE, and has made copies of this letter and all enclosures available for public inspection in SCE's principal office located in Rosemead, California. SCE has mailed copies to those persons whose names appear on the mailing list enclosed. Ms. Kimberly D. Bose, Secretary Federal Energy Regulatory Commission Page 6 August 2, 2010

SCE requests that all correspondence, pleadings, and other communications concerning this filing be served upon:

Rebecca Furman Attorney Southern California Edison Company P.O. Box 800 2244 Walnut Grove Avenue Rosemead, California 91770 <u>Rebecca.Furman@sce.com</u>

SCE also requests that an additional copy of any correspondence and orders be sent to the undersigned at <u>James.Cuillier@sce.com</u>.

Very truly yours,

JAMES A. CUILLIER

Enclosures

ATTACHMENT 3



California Independent System Operator Corporation

August 5, 2010

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

Re: California Independent System Operator Corporation Docket No. ER10-____-000

ISO Service Agreement No. 1645, Non-Conforming Large Generator Interconnection Agreement

Dear Secretary Bose:

The California Independent System Operator Corporation submits for Commission filing and acceptance the Large Generator Interconnection Agreement among the ISO, Southern California Edison Company, and Solar Partners VIII, LLC.¹ On August 2, 2010, SCE filed this same LGIA in Docket No. ER10-2091-000 as non-conforming to the *pro forma* LGIA set forth in the ISO tariff. The ISO is submitting its own filing of this LGIA in order to have it accepted as a non-conforming service agreement of the ISO and to enter it into the ISO's eTariff system consistent with SCE's filing. The ISO requests that the Commission's consideration of this filing be consolidated with the Commission's review of SCE's filing of this same agreement, designated by SCE as its Service Agreement No. 85 under its Transmission Owner Tariff in Docket No. ER10-2091.

I. Variation from the *Pro Forma* LGIA

As described in SCE's filing in Docket No. ER10-2091, interconnection of Solar Partners VIII's generating facility is dependent upon the completion of certain components of the Eldorado-Ivanpah transmission project. The LGIA for the generating facility of Solar Partners I, LLC filed in Docket No. ER10-732 incorporates a portion of those facilities as necessary network upgrades to accommodate interconnection of Solar Partners I's generating facility. The LGIA for the generating facility of Solar Partners II, LLC filed in Docket No. ER10-2089

¹ This filing is submitted pursuant to Section 205 of the Federal Power Act, 16 U.S.C. § 824d and Part 35 of the Commission's regulations, 18 C.F.R. Part 35, and in compliance with Order No. 714, *Electronic Tariff Filings*, FERC Stats. & Regs. ¶ 31,276 (2009). The ISO is also sometimes referred to as the CAISO.

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also conditionally incorporates a portion of those facilities as necessary network upgrades to accommodate interconnection of Solar Partners II's generating facility in the event Solar Partners I terminates or suspends work under its LGIA. The LGIA for Solar Partners VIII's generating facility provides that in the event that Solar Partners VIII's generating facility precedes the interconnection of the generating facilities of Solar Partners I and Solar Partners II and SCE does not receive abandoned plant approval for the Eldorado-Ivanpah transmission project, then the Solar Partners VIII LGIA will be amended such that Solar Partners VIII will be responsible to up-front finance the costs associated with the network upgrades identified in Sections 2 and 17 of Appendix 1 to the LGIA. The Solar Partners VIII LGIA provides for this contingency by including provisions in the appendices to the LGIA that may be interpreted as differing from the ISO's pro forma LGIA as they relate to SCE's commitment to fund the network upgrades.² SCE justified these provisions in its June 14, 2010 compliance filing of the revised Solar Partners I LGIA in Docket No. ER10-732.³ The ISO is filing this same version of the Solar Partners VIII LGIA as non-conforming ISO Service Agreement No. 1645 in order to have it accepted as a non-conforming service agreement of the ISO and to ensure that its eTariff records of non-conforming service agreements to which both it and SCE are parties are consistent with those of SCE.

II. Effective Date

In its filing of the Solar Partners VIII LGIA in Docket No. ER10-2091, SCE requested an effective date of August 3, 2010 for this LGIA. The ISO requests that the Commission specify that same effective date for the ISO's filing of this same LGIA in the instant proceeding.

To accommodate the foregoing requested effective date, the ISO respectfully requests waiver, pursuant to Section 35.11 of the Commission's regulations (18 C.F.R. § 35.11), of the 60-day notice requirement contained in Section 35.3 of the Commission's regulations (18 C.F.R. § 35.3), in order to permit the LGIA to become effective as of the requested effective date. As described in SCE's filing of this LGIA in Docket No. ER10-2091, good cause exists in that such waiver will enable SCE to commence engineering, design and

² *E.g.*, Appendix A, Section 7 (Additional Definitions) includes a definition for Abandoned Plant Approval; Section 12(d) (Charges) includes development milestones to ensure that transmission will not be developed before or in absence of generation; and Sections 12(f), -(g), - (h), and -(i) set forth provisions that will apply if Abandoned Plant Approval is not received.

³ SCE also filed for rehearing in Docket No. ER10-732 regarding the order to remove certain termination provisions from the Solar Partners I LGIA. SCE has not yet received an order on its rehearing request. Therefore, the Solar Partners VIII LGIA retains the *pro forma* termination provisions. To the extent that the Commission orders changes concerning the issues on rehearing in Docket No. ER10-732, the ISO and SCE would conform the Solar Partners VIII LGIA to that order.

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procurement of the facilities necessary to interconnect Solar Partners VIII's generating facility to the ISO controlled grid by Solar Partners VIII's requested initial synchronization date, thus facilitating the availability of power to customers in southern California. Granting the waiver will be consistent with prior Commission orders and the implementation by all parties to the LGIA pursuant to those orders. No harm will result to any entity from the specified effective date for the LGIA. Granting the requested waiver, therefore, is appropriate.

III. Expenses

No expense or cost associated with this filing has been alleged or judged in any judicial or administrative proceeding to be illegal, duplicative, unnecessary, or demonstratively the product of discriminatory employment practices.

IV. Service

The ISO has served copies of this transmittal letter and all attachments on the California Public Utilities Commission, the California Energy Commission, SCE, Solar Partners VIII, and the parties to Docket No. ER10-2091. In addition, the ISO is posting this transmittal letter and all attachments on the ISO's website.

Enclosed for filing are each of the following:

- (1) this transmittal letter; and
- (2) a copy of the executed version of the non-conforming LGIA for Solar Partners VIII (Attachment A).

V. Correspondence

The ISO requests that all correspondence, pleadings and other communications concerning this filing be served upon the following:

Michael D. Dozier* Senior Counsel California Independent System Operator Corporation 151 Blue Ravine Road Folsom, CA 95630 Tel: (916) 608-7048 Fax: (916) 608-7222 E-mail: mdozier@caiso.com Bradley R. Miliauskas* Alston & Bird LLP The Atlantic Building 950 F Street, NW Washington, DC 20004 Tel: (202) 756-3405 Fax: (202) 654-4875 E-mail: <u>bradley.miliauskas@alston.com</u>

* Individuals designated for service pursuant to Rule 203(b)(3), 18 C.F.R. § 203(b)(3).

VI. Conclusion

The ISO respectfully requests that the Commission accept this filing and permit the LGIA for Solar Partners VIII to be effective as of the date requested. If there are any questions concerning this filing, please contact the undersigned.

Respectfully submitted,

/s/ Michael D. Dozier

Nancy Saracino General Counsel Michael D. Dozier Senior Counsel California Independent System Operator Corporation 151 Blue Ravine Road Folsom, CA 95630

Sean A. Atkins Bradley R. Miliauskas Alston & Bird, LLP The Atlantic Building 950 F Street, NW Washington, DC 20004

Attorneys for the California Independent System Operator Corporation

ATTACHMENT 4

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE

STATE OF CALIFORNIA

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In the Matter of the Application of SOUTHERN CALIFORNIA EDISON COMPANY (U-338-E) for a Certificate of Public Convenience and Necessity Concerning the Eldorado-Ivanpah 220 kV Transmission Project

Application No.

(Filed May 28, 2009)

PROPONENT'S ENVIRONMENTAL ASSESSMENT ELDORADO-IVANPAH 220 KV TRANSMISSION PROJECT VOLUME 1

ANGELA M. WHATLEY

Attorneys for SOUTHERN CALIFORNIA EDISON COMPANY

> 2244 Walnut Grove Avenue Post Office Box 800 Rosemead, California 91770 Telephone: (626) 302-3618 Facsimile: (626) 302-1926 E-mail: <u>Case.Admin@sce.com</u>

Dated: May 28, 2009

SECTION 1.0 PURPOSE AND NEED AND OBJECTIVES

1.1 PURPOSE OF THE PROPOSED PROJECT

1.1.1 Introduction

As part of Renewable Energy Transmission Initiative (RETI), the Ivanpah Dry Lake Area, mostly under Bureau of Land Management (BLM) jurisdiction, has been identified to be a rich solar resource area in the State of California. The construction of new transmission lines and facilities will be required to tap this potential solar resource. These new transmission lines and facilities, together with existing facilities, will be used to deliver the power produced from the Ivanpah Dry Lake Area to utility load centers.

The purpose of the Eldorado-Ivanpah Transmission Project (Proposed Project or Project) is to provide the electrical facilities necessary to integrate up to 1,400 megawatts (MW) of new solar generation in the Ivanpah Dry Lake Area. The Proposed Project consists of a new, approximately 35-mile double-circuit 220 kilovolt (kV) transmission line between the Ivanpah Dry Lake Area and the existing Eldorado Substation and the construction of a new Ivanpah 220/115kV Substation. As discussed below, the Proposed Project is needed to:

- Comply with the state-mandated Renewables Portfolio Standard (RPS) (i.e., 20 percent renewable by year 2010 per California Senate Bill 107¹) in an orderly, rational, and costeffective manner, while also considering the need for maintaining reliable electric service during the upgrade and/or construction of new facilities
- 2. Integrate planned renewable generation resources², including up to 1,400 MW from the Ivanpah Dry Lake Area with a Power Purchase Agreement (PPA) executed by a California Public Utilities Commission (CPUC) jurisdictional Private Transmission Owners (PTO), in a manner that minimizes potential environmental impacts and impacts to existing and planned residences, where feasible, by maximizing the use of existing transmission corridors in order to:
 - a) maximize the use of existing, previously disturbed transmission line right-of-way (ROW) to minimize effect on previously undisturbed land and resources
 - b) select route and tower locations with the lowest potential for environmental impacts while still meeting Proposed Project objectives
 - c) select the shortest feasible route that minimizes environmental impacts and Proposed Project costs

 ¹ SB 107; Chapter 464, Statutes of 2006. SB 107 amends pertinent provisions in Public Resources Code Sections 25740 through 25751 and Public Utilities Code Sections 399.11 through 399.16.
 ² Under Sections 210 and 212 of the Federal Power Act (16 U.S.C § 824 [i] and [k]) and Section 25 of the California

² Under Sections 210 and 212 of the Federal Power Act (16 U.S.C § 824 [i] and [k]) and Section 25 of the California Independent System Operator's (CAISO) Tariff, Southern California Edison (SCE) is obligated to interconnect and integrate power generation facilities into its electric system.

- Interconnect and deliver energy from up to 1,400 MW of renewable resources located in the Ivanpah Dry Lake Area in a way that complies with all applicable North American Electric Reliability Council (NERC)/Western Electric Coordinating Council (WECC) Planning Standards, and in a manner that minimizes transmission line crossings
- 4. Support the State of California Greenhouse Gas Reduction Program
- 5. Assist the BLM in meeting the federal directive to develop 10,000 MW of renewable generation³

1.1.2 Compliance with Renewable Portfolio Standard

The California RPS was established in 2002 by Senate Bill 1078.⁴ The RPS requires investorowned utilities, including retail sellers of electricity such as SCE, to increase their sale of electricity produced by renewable energy sources (such as wind) by at least 1 percent per year, achieving 20 percent by 2017 (at the latest). These requirements were accelerated by the passage of Senate Bill 107⁵ to be consistent with the Energy Action Plan (EAP). The EAP adopted by CPUC, California Energy Commission (CEC), and the now defunct California Power Authority pledged that the agencies will accelerate RPS implementation to meet the 20 percent goal by 2010 instead of 2017. In order for investor-owned utilities (including retail sellers of electricity such as SCE) to satisfy these target goals, new transmission facilities will be required to interconnect remote areas of high renewable generation concentration. One of these remote areas is referred to as Ivanpah Dry Lake Area.

Consequently, the Proposed Project will help enable California utilities to comply with the state mandated RPS.

The CEC's 2006 Integrated Energy Policy Report (IEPR) Update Report (January 2007) encourages the development of additional transmission infrastructure to interconnect and deliver renewable resources. The IEPR Update Report identified the lack of transmission infrastructure to access remote renewable resources as the most critical barrier to meeting California's 20 percent target by 2010. Furthermore, the IEPR Update Report states that achieving the state's RPS is an essential component of California's greenhouse gas (GHG) emission reduction targets.

1.1.3 Integrate Planned Renewable Generation Resources

Under Sections 210 and 212 of the Federal Power Act (16 U.S.C § 824 [i] and [k]) and Section 25 of the CAISO's Tariff, SCE is obligated to interconnect and integrate power generation facilities into its electric system. As of April 22, 2009, there were a total of eight active

³ Executive Order 13212, Actions to Expedite Energy-Related Projects, requires federal agencies to expedite review of energy project applications; and the Energy Policy Act of 2005 (Title II, Sec. 211) requires the Department of Interior (DOI) to approve at least 10,000 MW of renewable energy on public lands by 2015.

⁴ SB1078 (Stats. 2002, Ch. 516), adding Article 16 (California RPS Program) to the CPUC § 399.11, et seq. (2004) (SB 1078).

⁵ SB 107, Chapter 464, Statutes of 2006. SB 107 amends pertinent provisions in Public Resources Code Sections 25740 through 25751 and Public Utilities Code Sections 399.11 through 399.16.

interconnection requests in the Ivanpah Dry Lake Area totaling 1,677 MW of new renewable generation interconnections. SCE understands that PG&E has executed a PPA with two of the eight active projects, and SCE recently executed a PPA with one of the active projects which have a combined output in excess of 1,400 MW. An Application for Certification (AFC) with the CEC has been filed for these three projects with a PPA on August 31, 2007 (Docket 07-AFC-05). The AFC indicates that the three plants (projects) would be developed in concert, and a joint environmental assessment by the BLM and the CEC is currently underway. Consequently, the Proposed Project will enable California utilities to access renewable generation in the Ivanpah Dry Lake Area, and thus satisfy SCE's obligation to interconnect and integrate power generation facilities into the electric grid.

1.1.4 <u>Compliance with North American Electric Reliability Council/Western Electric</u> <u>Coordinating Council Reliability Planning Criteria</u>

Transmission lines must be constructed in accordance with reliability planning criteria, including criteria developed by the CAISO, WECC, and NERC. These criteria require that the potential loss of transmission lines (proposed and existing) be analyzed and the transmission system be designed to continue to function if a loss occurs. To the extent that simultaneous loss of two or more transmission lines occurs within the same transmission corridor and creates a problem with respect to system reliability, SCE must utilize acceptable mitigation measures, such as Special Protection Systems (SPS) or construction of additional facility upgrades.

1.1.5 Support California's Greenhouse Gas Reduction Program

With the recent signing of Assembly Bill 32 (Nuñez), Chapter 488, Statutes of 2006, California will embark on an ambitious program to reduce GHG emissions. The 2006 IEPR Update states that "achieving the state's Renewable Portfolio Standard goals is an essential component of California's greenhouse gas emission reduction targets."

Consequently, the Proposed Project will enable California to integrate renewable resources (such as solar) with no GHG emissions, which could help the State of California achieve GHG emissions reduction targets.

1.1.6 Support Federal Renewable Energy Mandates

Executive Order 13212, Actions to Expedite Energy-Related Projects, requires federal agencies to expedite review of energy project applications.

The Energy Policy Act of 2005 (Title II, Sec. 211) requires the Department of Interior (DOI) to approve at least 10,000 MW of renewable energy on public lands by 2015.

1.2 NEED FOR THE PROPOSED PROJECT

The Proposed Project is needed to interconnect and deliver energy from renewable resources located in the Ivanpah Dry Lake Area in a way that complies with all applicable NERC/WECC

Planning Standards. These renewable resources are being planned by independent power producers in response to the state mandated RPS. Consequently, the energy is expected to supplant energy deliveries from existing non-renewable resources.

All new interconnection requests are shown in Table 1-1. The interconnection studies conducted as mandated by the CAISO Large Generator Interconnection Procedures (LGIP) have determined that the planned additional generation interconnections would result in unacceptable thermal overload conditions on the existing Eldorado-Baker-Cool Water-Dunn Siding-Mountain Pass 115kV. In particular, these studies determined that a portion of the existing Eldorado-Baker-Cool Water-Dunn Siding-Mountain Pass 115kV (approximately 35 miles of the Eldorado leg) as well as the existing 220/115kV transformer bank at Eldorado would load beyond the maximum allowable limits under base case conditions. These findings result in the need to construct new 220kV transmission facilities from the Ivanpah Dry Lake Area to SCE's Eldorado Substation, including a new collector substation in the Ivanpah Dry Lake Area to interconnect up to 1,400 MW of new generation resources.

TABLE 1-1 IVANPAH DRY LAKE AREA NEW GENERATION INTERCONNECTION REQUESTS		
CAISO Queue Position	Туре	Size (MW)
CAISO Queue #11	New Wind Project	63
CAISO Queue #131	New Solar Project	100
CAISO Queue #162	New Solar Project	114
CAISO Queue #233	New Solar Project	200
Total Continuing Under LGIP Serial Approach		477
Currently under review at the CEC (Docket 07-AFC-05)		
	/ · · · ·	
CAISO Queue #163	New Solar Project	300
CAISO Queue #234	New Solar Project	400
CAISO Queue #382	New Solar Project	270
CAISO Queue #467	New Solar Project	230
Total Continuing Under Transitional Queue Cluster Approach		1,200
Grand Total Interconnection Requests		1,677

The Proposed Project will be configured to allow for future network upgrades to further increase renewable resource integration beyond the estimated 1,400 MW Proposed Project capability as limited by CAISO double-line outage Spinning Reserve Criteria. Given that the total amount of requested interconnections (see Table 1-1) which are still active are in excess of the 1,400 MW maximum Spinning Reserve Criteria as limited by double-line outage conditions, the use of double-circuit construction instead of single-circuit is prudent and will allow for maximizing amount of power in this corridor with minimal environmental impact as potential additional facilities are installed when required beyond those described in this document. Although not part of this plan, SCE envisions potential future transmission into the Ivanpah Dry Lake Area when actual generation development exceeds the 1,400 MW capability of the Proposed Project. Such potential future transmission is anticipated to allow for full integration of the identified renewable resources with minimal impacts on the Proposed Project corridor if double-circuit design specification for the new transmission construction is implemented as part of this Proposed Project. Since the executed PPAs are less than the 1,400 MW Proposed Project capability and not all projects in the CAISO's interconnection queue are expected to materialize, justification of potential future transmission is not appropriate at this time because the need for such additional

transmission is too speculative. Therefore, SCE has not included these potential additional facility upgrades as part of this Proposed Project.

1.3 **PROJECT OBJECTIVES**

The California Environmental Quality Act (CEQA) and the CEQA Guidelines (Section 15126.6[a]) require the consideration of a reasonable range of alternatives to a Proposed Project, or the location of a Proposed Project that would feasibly attain most of the basic objectives of the Proposed Project, but would avoid or substantially lessen any of the significant effects of the project. CEQA Guidelines (Section 15124[b]) require that the statement of objectives sought to be achieved by the Proposed Project include the underlying purpose of the Proposed Project. In addition to the purposes described in Section 1.1, SCE has identified the following objectives for meeting the Proposed Project's purpose and need described in this chapter:

- 1. Reliably interconnect new solar generation resources in the Ivanpah Dry Lake Area and help enable SCE and other California utilities to comply with California's RPS in an expedited manner
- 2. Comply with all applicable reliability planning criteria required by NERC, WECC, and the CAISO
- 3. Construct facilities in an orderly, rational, and cost-effective manner to maintain reliable electric service, by minimizing service interruptions, during construction
- 4. Maximize the use of existing transmission line ROWs in order to minimize effects on previously undisturbed land and resources⁶
- 5. Minimize environmental impacts through selection of routes, tower types, and locations
- 6. Where existing ROW is not available, use the shortest feasible route that minimizes environmental impacts
- 7. Meet Proposed Project needs in a cost-effective and timely manner

These objectives guide SCE in developing a range of reasonable alternatives to the Proposed Project, or to the location of the Proposed Project, which would feasibly attain most of the basic project objectives.

⁶ See Garamendi Principles (Senate Bill 2431, Stats. 1988, Ch. 1457) regarding state transmission siting policies, including: (1) encourage the use of existing ROWs by upgrading existing transmission facilities where technically and economically justifiable; (2) when construction of new transmission lines is required, encourage expansion of existing ROW, when technically and economically feasible; (3) provide for the creation of new ROWs when justified by environmental, technical, or economic reasons as determined by the appropriate licensing agency; (4) where there is a need to construct additional transmission capacity, seek agreement among all interested utilities on the efficient use of that capacity.