

September 17, 2012

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

Steve Rodgers, Director
Division of Electric Power Regulation – West
Federal Energy Regulatory Commission
888 First Street, NE
Washington, DC 20426

**Re: California Independent System Operator Corporation
Docket Nos. ER12-2207-000 and ER12-2209-000**

**Southern California Edison Company
Docket Nos. ER12-2206-000 and ER12-2208-000**

Response to August 10, 2012 Commission Staff Letter

Dear Secretary Bose and Mr. Rodgers:

The California Independent System Operator Corporation (“ISO”) submits its response to the Commission’s August 10, 2012 letter requesting additional information in the above referenced dockets. In these dockets the ISO and Southern California Edison Company (“SCE”) each separately submitted for filing two unexecuted Small Generator Interconnection Agreements (SGIAs) related to two small solar photovoltaic generating facilities seeking to interconnect to the ISO controlled grid in the Western Antelope area of SCE’s transmission system near Lancaster, California.¹

In its August 10, 2012 letter, the Commission directed the ISO and SCE to provide requested information within 30 days. On September 10, 2012, the ISO requested an extension to submit its response on September 17, 2012, which the Commission granted.² SCE provided its response letter on September 7, 2012.

¹ The two interconnection customers are Western Antelope Dry Ranch LLC and Western Antelope Blue Sky Ranch LLC. These interconnection customers are affiliates of a common development sponsor, Silverado Power, which is the managing member of the entity which wholly owns the two solar projects.

² Notice of Extension of Time, issued September 11, 2012.

The information requested concerns certain upgrades classified under the SGAs as participating transmission owner's interconnection facilities. The particular facilities consist of protective relays and telecommunication equipment at the Antelope Substation. Silverado Power, the owner of the interconnection customers, has contended in the dockets that the facilities should be classified as network upgrades and not as participating transmission owner's interconnection facilities. In preparing its response, attached to this letter, the ISO has reviewed the interconnection studies of the two interconnection customers and the information provided by SCE in response to the Commission's August 10 letter.

I. Attachments

The ISO has included the following attachments with this transmittal letter:

Attachment A: ISO responses to Request for Additional Information

Attachment B: SCE's September 7, 2012 letter providing responses to the Commission's Request for Additional Information

II. Communications

Communications regarding this filing should be addressed to the same individuals at the ISO who were designated to receive service in the underlying filings in these proceedings, namely:

Nancy Saracino
General Counsel
Sidney M. Davies
Assistant General Counsel
Baldassaro "Bill" Di Capo
Senior Counsel
California Independent System
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250 Outcropping Way
Folsom, CA 95630
Tel: (916) 351-4400
Fax: (916) 608-7296
E-mail: bdicap@caiso.com

III. Service

The ISO has served copies of this filing upon all parties in the above-referenced proceedings. In addition, the ISO is posting the filing on its website.

IV. Conclusion

The ISO respectfully requests that the Commission accept this response as fully providing the additional information requested in the Commission Staff's August 10, 2012 letter. If there are any further questions or comments, please contact the undersigned.

By: /s/ Baldassaro "Bill" Di Capo

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ATTACHMENT A

**ISO Response to August 10, 2012 Request for Additional Information
Docket Nos. ER12-2207, ER12-2209, ER12-2206, ER12-2208**

Attachment A
ISO Response to August 10, 2012 Request for Additional Information
Docket Nos. ER12-2207, ER12-2209, ER12-2206, ER12-2208

1. *Regarding the SGIA, Attachment 2, Section 1(a)(iv) and (v):*

a. *Provide a detailed schematic showing the proposed location of the fiber optic cables and associated protection equipment relative to the point of interconnection for each of the project's facilities (identified in Attachment 3 of each SGIA).*

Response: For clarity, the ISO notes that questions relate to two attachments to the SGIA's

Attachment 2	Description and Costs of the Small Generating Facility, Interconnection Facilities, and Metering Equipment
Attachment 3	One-line Diagram Depicting the Small Generating Facility, Interconnection Facilities, Metering Equipment, and Upgrades

SCE has provided a schematic with its responses entitled “Figure 1—Schematic Outlining Interconnection Facilities under Dispute” in its September 7, 2012 response, which is an annotated version of Attachment 3 to the SGIA's. SCE's annotations on the Figure 1 schematic show the proposed locations of the facilities described in SGIA Attachment 2, Section 1(a)(iv) and (v). For convenience, the ISO has also included the Figure 1 schematic as the last page of these responses.

SCE also describes the facilities as follows:

The facilities at the generation site consist of customer-owned SEL 311L and GE L90 relay protection installed at the customer-owned substation Mechanical Electrical Equipment Room (MEER), customer-owned fiber cable, diversely routed customer-owned fiber cable, and SCE-owned telecommunication equipment located at the Generation Facility site that is used to couple and decouple signals on the fiber cables.

The facilities at the Antelope Substation consist of SCE-owned SEL 311L and GE L90 relay protection installed in the existing common MEER building, SCE-owned fiber cable, diversely routed SCE-owned fiber cable, and SCE telecommunication equipment located at the Antelope Substation that is used to couple and decouple signals on the fiber cables.

The ISO has reviewed the Figure 1 schematic and description and believes it to be correct and thus has no additional response to provide.

- b. *Provide a protection system diagram showing the fiber optic cables and associated protection equipment as part of the entire protection system and coordination scheme as designed by SoCal Edison/CAISO for each project, and/or any other purpose.*

Response: The Figure 1 schematic, which SCE has attached to its responses, depicts the protection system. The ISO agrees with SCE that the purpose of these fiber optic cables and telecommunication facilities is to (i) provide adequate coordinated protection to the generation tie-line and (ii) support the generator's remote terminal unit (RTU).

- c. *Identify the protection facilities, if any, including telecommunication facilities, cables, and relays that will be located beyond the point of interconnection.*

Response: The ISO agrees with SCE's response that the telecommunication equipment will be located on the customer side of the interconnection at Antelope Substation, and at the generating facility, and that no protection facilities will be located beyond the point of interconnection.

- d. *Describe the function of this equipment as a part of the protection system and coordination scheme designed by the SoCal Edison/CAISO for Silverado, and/or any other purpose.*

Response: The telecommunication facilities described in Section 1(a)(iv) and (v) are not used for purposes other than generation tie-line protection and support for the generator's remote terminal unit. These telecommunication facilities provide a path of communication for the relays located at either end of the radial generation tie-line and the remote terminal unit located at the generation facility. The remote terminal unit provides real time information on the status of the generating units needed to ensure proper real-time operation of the electric power system.

- e. *Identify if the use of the proposed facilities, described under Attachment 2, Section 1(a)(iv) and (v), is for, or could be used for, any purpose other than the protection of the Antelope-Western Antelope Dry Ranch 66 kV transmission line.*

Response: The ISO agrees with SCE's assessment in its response that the telecommunication facilities described in Section 1(a)(iv) and (v) are only being used for generation tie-line protection and to support the generator remote terminal unit and are not being used for other purposes.

The telecommunication facilities could be used for a future special protection scheme (which is the term now used in place of the term *remedial action scheme* or *RAS*) or as part of an operating procedure, but that need has not been identified. However, the telecommunications facilities identified in this SGIA section would not be a necessary component in a future special protection system or operating procedure. As an alternative to using the telecommunication facilities, a special protection scheme could be

designed to open the breaker at Antelope Substation, which would disconnect the Western Antelope Dry Ranch and Western Antelope Blue Sky generating facilities.

- f. Describe if any element of the facilities identified under item 1.e. will be a part of or be activated by any Special Protection Scheme (SPS), Remedial Action Scheme (RAS), and/or Operating Procedure designed or owned by SoCal Edison or CAISO. If any of the facilities are part of any SPS, RAS and/or Operating Procedure, identify the scheme and describe its designed function, including the role of the facilities identified under item 1.e.*

Response: No element of the facilities will be part of or activated by any special protection system or operating procedure. As referenced above, the ISO concurs with SCE that, other than protection of the customer's generation tie-line and remote terminal unit, there is no other current use for the identified telecommunication equipment.

SCE also provided this further explanation:

The telecommunication facilities, equipment and fiber cables, may be used in conjunction with a future Special Protection System (SPS), if a need for an SPS is later defined. SPS language in the agreement is included to specify that this project may be added into a future SPS at a later point in time as system requirements change. However, SCE could implement the SPS without the telecommunication facilities in question by simply opening the circuit breakers at the point of interconnection. The telecommunication facilities and fiber optic cables in question would only be used to enable the customer's station light and power to be supplied via the radial generation tie-line if a SPS were implemented. Because such SPS design would also disconnect the Generating Facility station light and power, SCE could leverage these line protection telecommunication facilities to provide a benefit to the interconnection customer.

The ISO concurs with SCE's response.

2. *Regarding the SGIA, Attachment 2, Section 1(a)(xvi):*

- a. Provide a detailed schematic showing the location of the relays relative to the point of interconnection (identified in Attachment 3 of the SGIA).*

Response: The Figure 1 schematic in SCE's responses shows the location of the relays below a box that identifies the Mechanical Electric Equipment Room.

- b. Identify the potential use and operation of the relays. Describe if the relays will be a part of or be activated by any Special Protection Scheme (SPS) or Remedial Action Scheme (RAS), and/or Operating Procedure designed by SoCal Edison or CAISO. If they are a part of any SPS, RAS and/or Operating Procedure, identify the scheme and describe its designed function, including the role of these relays.*

Response: No special protection scheme (the present term used in place of the formerly used term *remedial action scheme*) or operating procedure has been identified for the interconnection of either project. Accordingly, the protective relays are for these purposes only:

- (i) to support the remote terminal unit to transmit the supervisory control and data acquisition (SCADA) data to the control center and
- (ii) as a protection to detect faults on the radial generation tie-line and to isolate or disconnect the generating facility, by opening the circuit breaker at the generating facility and at the Antelope Substation in the event a fault on the customer's radial generation tie line is detected.

The GE L90 and SEL 311L relays that are depicted on the Figure 1 schematic are not sufficient to support a future special protection scheme; in the event that an SPS were needed in the future, additional relays would have to be added, such as GE N60 relays, which SCE identifies in its response to this question .

3. *Regarding the SGIA, Attachment 2, Sections 1(b)(i)(3), 1(b)(i)(4) and 1(b)(iii):*

- a. *Provide a detailed schematic showing location of the relays and telecommunication equipment relative to the point of interconnection (identified in Attachment 3 of the SGIA).*

Response: The requested detail is provided in the Figure 1 schematic.

- b. *Identify the designed function of the relays and telecommunication equipment. Describe if the relays and/or telecommunication equipment will be a part of or be activated by any Special Protection Scheme (SPS), Remedial Action Scheme (RAS), and/or Operating Procedure designed by SoCal Edison or CAISO. If they are a part of any SPS, RAS and/or Operating Procedure, identify the scheme and describe its designed function, including the role of these facilities.*

Response: As indicated in the ISO's answers to questions 2(b) above, the relays and telecommunications equipment described in Sections 1(b)(i)(3), 1(b)(i)(4) and 1(b)(iii) will not be part of or activated by any special protection scheme or part of any operating procedure and are only used for generation tie-line protection and to support the generator remote terminal unit.

4. *Provide the SoCal Edison Interconnection Handbook mentioned in the SGIA, Attachment 2, Section 1(a)(xvii).*

Response: SCE has included a copy of the handbook referenced in the SGIA in SCE's September 7, 2012 response.

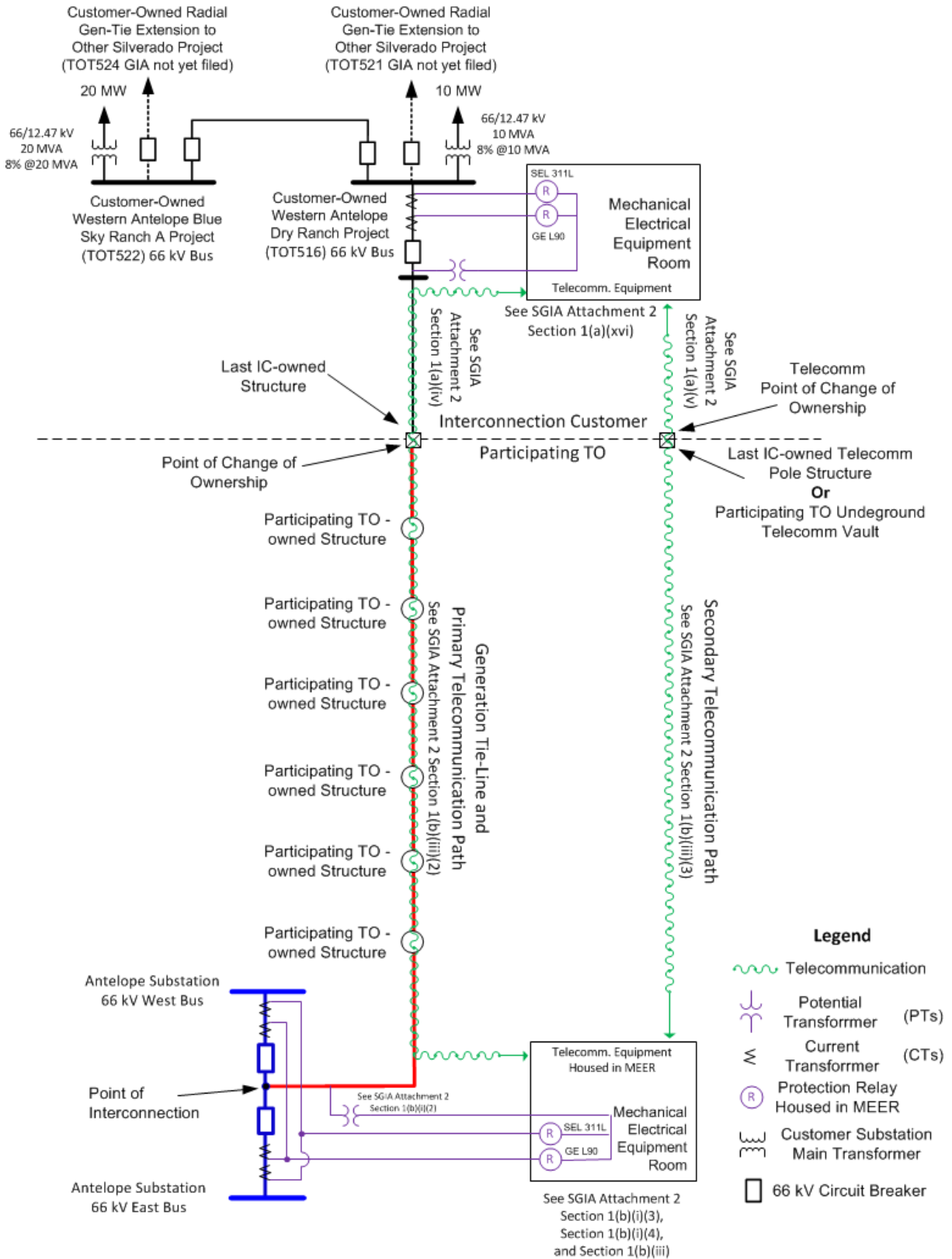
An electronic version of SoCal Edison Interconnection Handbook approved as of March 17, 2009, can be accessed on SCE's website at:

http://www.sce.com/NR/rdonlyres/851128D1-6820-43DD-BAD4-B30DE27B0F35/0/Interconnection_Handbook_090317.pdf.

5. *Provide the SoCal Edison documents developed under the NERC Standard FAC-001-0, R2.1.5 relating to the system protection and coordination.*

Response: The ISO is not in possession of SCE's documents developed under the NERC Standard FAC-001-0, R2.1.5 relating of the system protection and coordination, and thus refers to SCE's response.

Figure 1 – Schematic Outlining Interconnection Facilities Under Dispute



ATTACHMENT B

**Southern California Edison Response Request for Additional Information
Docket Nos. ER12-2206, ER12-2208**

September 7, 2012

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

Re: Southern California Edison Company
Docket Nos. ER12-2206-000 and ER12-2208-000
California Independent System Operator Corporation
Docket Nos. ER12-2207-000 and ER12-2209-000

Dear Secretary Bose:

On July 5, 2012, the California Independent System Operator Corporation (“CAISO”) and Southern California Edison Company (“SCE”) each separately submitted for filing with the Commission in Docket Nos. ER12-2206 through ER12-2209, two unexecuted Small Generator Interconnection Agreements (SGIAs) to interconnect two proposed solar generating facilities and transmit the energy to the CAISO-controlled grid.¹ By letter dated August 10, 2012, the Commission requested additional information to process these filings. The Commission directed the CAISO and SCE to file a response to the August 10, 2012 letter providing the requested information within 30 days of the letter. SCE is providing the requested information in the attached response.

¹ Western Antelope Dry Ranch LLC and Western Antelope Blue Sky Ranch LLC.

Ms. Kimberly D. Bose, Secretary
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A copy of SCE's response is being electronically sent to all parties on the official Service List compiled by the Commission for Docket Nos. ER12-2206 through ER12-2209.

Very truly yours,

A handwritten signature in black ink, appearing to read "J. Cuillier", written in a cursive style.

JAMES A. CULLIER

Enclosures

Cc: Steve Rodgers, Director
Division of Electric Power
Regulation - West

**Response of Southern California Edison Company to Request for Additional
Information in Docket Nos. ER12-2206-000 and ER12-2208-000**

Response of Southern California Edison Company to Request for Additional Information in Docket Nos. ER12-2206-000 and ER12-2208-000

1. Regarding the SGIA, Attachment 2, Section 1(a)(iv) and (v):

- a. Provide a detailed schematic showing the proposed location of the fiber optic cables and associated protection equipment relative to the point of interconnection for each of the project's facilities (identified in Attachment 3 of each SGIA).

Response: Please refer to the attached Figure 1. SCE has annotated Attachment 3 to the SGIAs, filed in FERC Docket Nos. ER12-2206 and ER12-2208, to show the location of the fiber optic cables and associated protection equipment relative to the interconnection facilities for these projects. The facilities at the generation site consist of customer-owned SEL 311L and GE L90 relay protection installed at the customer-owned substation Mechanical Electrical Equipment Room (MEER), customer-owned fiber cable, diversely routed customer-owned fiber cable, and SCE-owned telecommunication equipment located at the Generation Facility site that is used to couple and decouple signals on the fiber cables. The facilities at the Antelope Substation consist of SCE-owned SEL 311L and GE L90 relay protection installed in the existing common MEER building, SCE-owned fiber cable, diversely routed SCE-owned fiber cable, and SCE telecommunication equipment located at the Antelope Substation that is used to couple and decouple signals on the fiber cables.

- b. Provide a protection system diagram showing the fiber optic cables and associated protection equipment as part of the entire protection system and coordination scheme as designed by SoCal Edison/CAISO for each project, and/or any other purpose.

Response: Please refer to the attached Figure 1. The sole purpose of these fiber optic cables and telecommunication facilities is to provide adequate coordinated protection to the generation tie-line and support the generator's Remote Terminal Unit (RTU).

- c. Identify the protection facilities, if any, including telecommunication facilities, cables, and relays that will be located beyond the point of interconnection.

Response: None. The telecommunication equipment is located on the customer side of the interconnection at Antelope Substation, as well as at the generating facility.

- d. Describe the function of this equipment as a part of the protection system and coordination scheme designed by the SoCal Edison/CAISO for Silverado, and/or any other purpose.

Response: The telecommunication facilities described in Section 1(a)(iv) and (v) are not used for any other purpose other than generation tie-line protection and support for the generator's RTU. These telecommunication facilities provide a path of communication for the relays located at either end of the radial generation tie-line and the RTU located at the Generation Facility. The RTU provides real time information on the status of the generating units needed to ensure proper real-time operation of the electric power system.

- e. Identify if the use of the proposed facilities, described under Attachment 2, Section 1(a)(iv) and (v), is for, or could be used for, any purpose other than the protection of the Antelope-Western Antelope Dry Ranch 66 kV transmission line.

Response: The telecommunication facilities described in Section 1(a)(iv) and (v) are only used for generation tie-line protection and to support the generator RTU.

- f. Describe if any element of the facilities identified under item 1.e. will be a part of or be activated by any Special Protection Scheme (SPS), Remedial Action Scheme (RAS), and/or Operating Procedure designed or owned by SoCal Edison or CAISO. If any of the facilities are part of any SPS, RAS and/or Operating Procedure, identify the scheme and describe its designed function, including the role of the facilities identified under item 1.e.

Response: Besides generation tie-line protection and RTU, there is no other use for the identified telecommunication equipment at this point in time. The telecommunication facilities, equipment and fiber cables, may be used in conjunction with a future Special Protection System (SPS), if a need for an SPS is later defined. SPS language in the agreement is included to specify that this project may be added into a future SPS at a later point in time as system requirements change. However, SCE could implement the SPS without the telecommunication facilities in question by simply opening the circuit breakers at the point of interconnection. The telecommunication facilities and fiber optic cables in question would only be used to enable the customer's station light and power to be supplied via the radial generation tie-line if a SPS were implemented. Because such SPS design would also disconnect the Generating Facility station light and power, SCE could leverage these line protection telecommunication facilities to provide a benefit to the interconnection customer.

2. Regarding the SGIA, Attachment 2, Section 1(a)(xvi):

- a. Provide a detailed schematic showing the location of the relays relative to the point of interconnection (identified in Attachment 3 of the SGIA).

Response: Please refer to Figure 1.

- b. Identify the potential use and operation of the relays. Describe if the relays will be a part of or be activated by any Special Protection Scheme (SPS) or Remedial Action Scheme (RAS), and/or Operating Procedure designed by SoCal Edison or CAISO. If they are a part of any SPS, RAS and/or Operating Procedure, identify the scheme and describe its designed function, including the role of these relays.

Response: The protective relays are not used for any other purpose other than generation tie-line protection. The SEL 311L and GE L90 protective relays at the Generation Facility and at Antelope substation will detect faults on the radial generation tie-line and isolate or disconnect the generating facility by opening the circuit breaker at the Generating Facility and at the Antelope Substation in the event a fault on the customer's radial generation tie line is detected. If an SPS or RAS was later identified as needed, new SPS relays (GE N60) would be also needed.

3. Regarding the SGIA, Attachment 2, Sections 1(b)(i)(3), 1(b)(i)(4) and 1(b)(iii):

- a. Provide a detailed schematic showing location of the relays and telecommunication equipment relative to the point of interconnection (identified in Attachment 3 of the SGIA).

Response: Please refer to Figure 1.

- b. Identify the designed function of the relays and telecommunication equipment. Describe if the relays and/or telecommunication equipment will be a part of or be activated by any Special Protection Scheme (SPS), Remedial Action Scheme (RAS), and/or Operating Procedure designed by SoCal Edison or CAISO. If they are a part of any SPS, RAS and/or Operating Procedure, identify the scheme and describe its designed function, including the role of these facilities.

Response: The telecommunication facilities and protective relays described in Sections 1(b)(i)(3), 1(b)(i)(4) and 1(b)(iii) are only used for generation tie-line protection and to support the generator RTU.

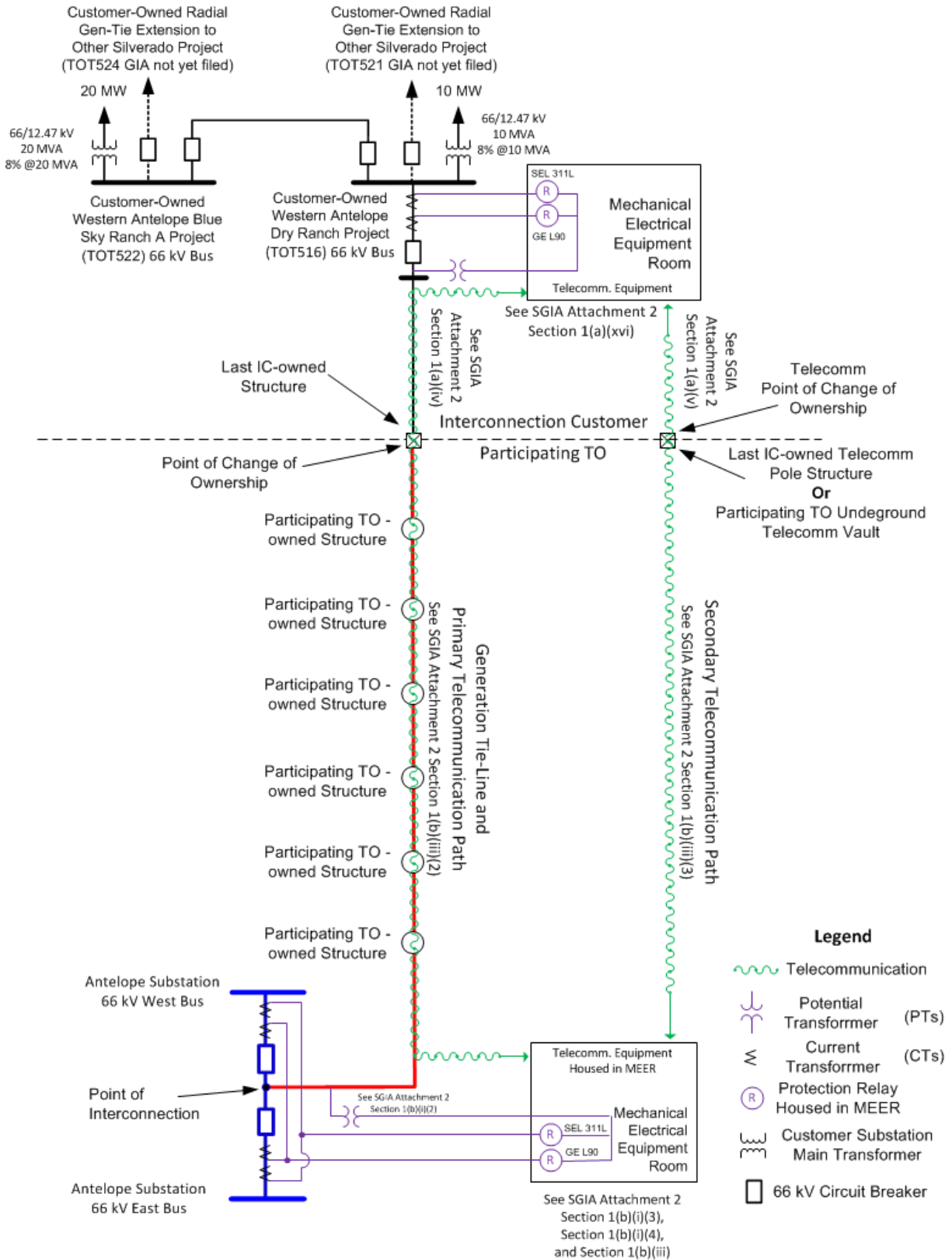
4. Provide the SoCal Edison Interconnection Handbook mentioned in the SGIA, Attachment 2, Section 1(a)(xvii).

Response: A copy is attached.

5. Provide the SoCal Edison documents developed under the NERC Standard FAC-001-0, R2.1.5 relating to the system protection and coordination.

Response: Please refer to Section 3 of SCE's Interconnection Handbook which addresses NERC Standard FAC-001-0, R2.1.5.

Figure 1 – Schematic Outlining Interconnection Facilities Under Dispute



CERTIFICATE OF SERVICE

I hereby certify that I have served the foregoing document upon the parties listed on the official service lists in the above-referenced proceedings, in accordance with the requirements of Rule 2010 of the Commission's Rules of Practice and Procedure (18 C.F.R. § 385.2010).

Dated at Folsom, California this 17th day of September, 2012

Is/ Anna Pascuzzo

Anna Pascuzzo