SCE's 2017 Integrated Distributed Energy Resources Request for Offers ("IDER RFO") Bidders Conference

January 19, 2018

Skype Link (for the presentation only): https://webmeeting.sce.com/james.barbour/C1V23WJC

Call-in Information (Participants MUST dial in to receive audio):

Number: 888-469-1674

Participant Passcode: 7435686

Agenda

- **Overview**
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  - Independent Evaluator
  - RFO Executive Summary
  - Schedule
- **Products & Eligibility**
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  - Product Types
  - Key Eligibility Criteria
- **Needs Assessment**
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  - Newbury Project
- **Customer Composition**
  - By Substation and Circuits
- **Incrementality**
  - Category Definitions
  - Examples
- **Evaluation**
  - Least cost/Best Fit
  - Other
  - Other
- **RFO Website**
  - Registration
  - Key Documents
  - Question Submittal
- **Final Q&A Session**

A Q & A session will follow each section presentation. To ask a question, press *1 and wait for the prompt from the operator. You may also submit a question by sending an email to: sceiderrfo@sce.com

SOUTHERN CALIFORNIA EDISON
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Bidders Conference and RFO Overview

Dan Walker

Webinar Purpose

- In this Webinar, SCE will provide information to help potential bidders in understanding the need and purpose of the IDER RFO as well as understanding the RFO process and how to submit bids.
- There is time allotted for Q&A after each topic
- After the webinar, SCE will post this presentation and a recording of the webinar on the IDER RFO website - https://sceider.accionpower.com/
- This presentation is intended to be a summary level discussion of the information and requirements established in the IDER RFO and does not include all of the detailed information that can be found in the documents posted to the IDER Website
- To the extent that there are any inconsistencies between the information provided in this presentation and the information contained in the documents posted to the Website, the information in the documents posted to the Website will govern

Independent Evaluator (IE)

- Requirement for an IE are mandated through CPUC Orders
- The IE performs an independent review of the proposals and a detailed review of the utility evaluation and selection process
- The IE monitors communications between SCE and Offerors and is copied on all correspondence
- The IE has access to all bid data
- Sedway Consulting has been retained as the IE for this solicitation:
  - Key contact is Alan Taylor: Alan.Taylor@sedwayconsulting.com

IDER RFO Overview – High Level Summary

- As mandated by D.16-12-036, the Integrated Distributed Energy Resources Request for Offers ("IDER RFO") will procure distributed energy resources (DERs) to defer the need for capital expenditures for traditional distribution infrastructure upgrades
- Two traditional distribution infrastructure upgrade projects have been identified for deferral
- DERs include energy efficiency, demand response, renewables, and energy storage, connected to SCE's distribution system or at customer locations
- Deployed DERs will alleviate infrastructure strain and could allow upgrades to occur at a later time

Schedule*

Date	Milestone
June 15, 2017	SCE filed Advice Letter on RFO implementation
August 30, 2017	Market Awareness Webinar
January 12, 2018	RFO Launch
January 19, 2018	Bidder's Conference
February 1, 2018 - 12:00 Noon	Indicative Offers Due
March 12, 2018	Shortlisting Notification
April 12, 2018	Negotiation Deadline
April 16, 2018 – 12:00 Noon	Final Offers Due
May 11, 2018	Final Selection Notification

*Dates and Milestones are subject to change

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Product & Eligibility Overview

Gene Lee

RFO Overview

- The IDER RFO will use a two-step bid process:
  - Indicative offers due February 1, 2018
  - SCE will shortlist the best indicative offers, negotiate terms and conditions of agreement(s), then Sellers will submit a final price refresh
  - SCE may execute agreements with a subset of shortlisted Sellers
- Pro Forma Agreements have been modified from previous solicitations to reflect the requirement for high reliability of products procured for distribution deferral purposes
- Please thoroughly review all provisions of the Pro Forma Agreements, Term Sheets and RFO instructions – Seller must be fully aware of all obligations, terms and conditions prior to submitting an offer
- Upon execution of a Non-Disclosure Agreement, SCE will share a list of addresses that are served by the qualifying substations or circuits

Product Types

- SCE is soliciting the following products:
  - In Front of the Meter ("IFOM") Energy Storage ("ES") (RA Only and RA with Put)
  - IFOM Renewable Distributed Generation ("DG")
  - IFOM Renewable DG-ES
  - Behind the Meter ("BTM") Renewable DG
  - BTM Renewable DG-ES
  - BTM Demand Response ("DR") (Reduction with/without ES)
  - BTM Energy Efficiency ("EE")
  - BTM Permanent Load Shift ("PLS") (Battery/Thermal storage)

Product & Eligibility Overview: Eligibility Criteria for All Resources

All offers must demonstrate that the Project will:

- Either connect to one of the qualifying substations/circuits or be located at customer sites that take service from one of the qualifying substations/circuits
- Be online no earlier than 3/1/2020 and no later than 3/1/2023
- Deliver at a <u>minimum</u> for one month within the identified peak season for each location

Product & Eligibility Overview: All Behind the Meter resources

All BTM Resource (DR, BTM DG, BTM DG-ES, EE, PLS) offers must:

- Be no longer in term length than 15 years, and if an offer greater than or equal to 10 years is provided, must also provide an offer shorter than 10 years (exception is EE which has a 5 year delivery period)
- Be greater than or equal to 100 kW
- Be able to reduce customer load at a minimum for one hour within the deferral time period
- For all BTM partially incremental offers, Offerors are strongly encouraged to include two offers; one that includes receiving incentives through another authorized utility procurement, program or tariff and a second offer that does not include receiving such incentives.

Product & Eligibility Overview: In Front of the Meter DG and DG-ES

In Front of the Meter DG and DG-ES resource offers must:

- Be no longer in term length than 20 years, and if an offer greater than or equal to 10 years is provided, must also provide an offer shorter than 10 years
- Be greater than or equal to 250 kW
- Have demonstrable site control by contract execution date
- Be able to deliver at a minimum for one hour within the deferral time period

Product & Eligibility Overview: In Front of the Meter Energy Storage

In Front of the Meter Energy Storage Resource offers must:

- Be no longer in term length than 20 years, and if an offer greater than or equal to 10 years is provided, must also provide an offer shorter than 10 years
- Be greater than or equal to 500 kW
- Be capable of discharging at a minimum for 4 consecutive hours for three consecutive days (Resource Adequacy requirement) with at least one of those hours within the deferral time period
- Achieve Full Capacity Deliverability Status and a Net Qualifying Capacity (Resource Adequacy requirement)
- Have demonstrable site control by contract execution date

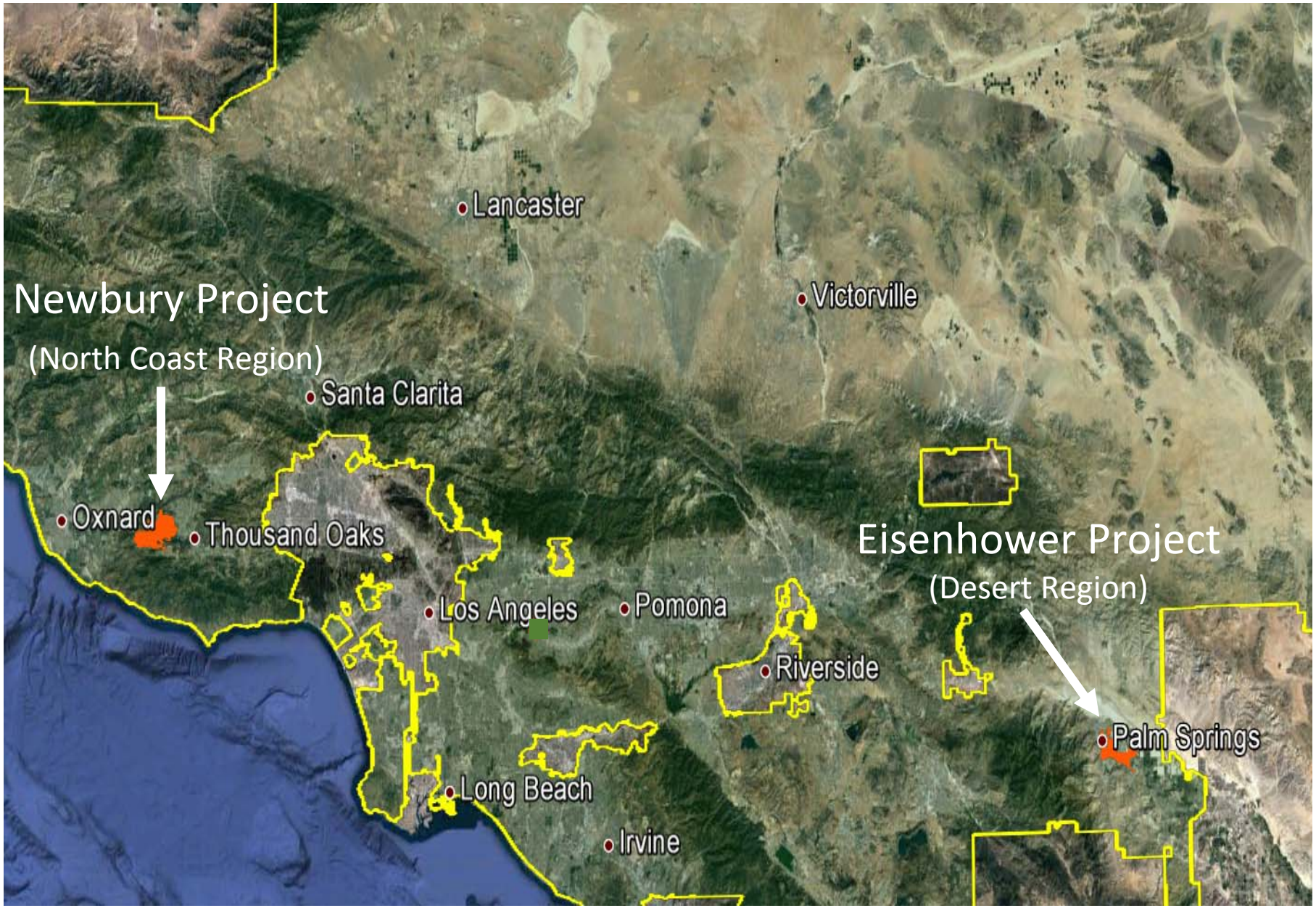
Q&A

To ask a question, press *1 and wait for the prompt from the operator

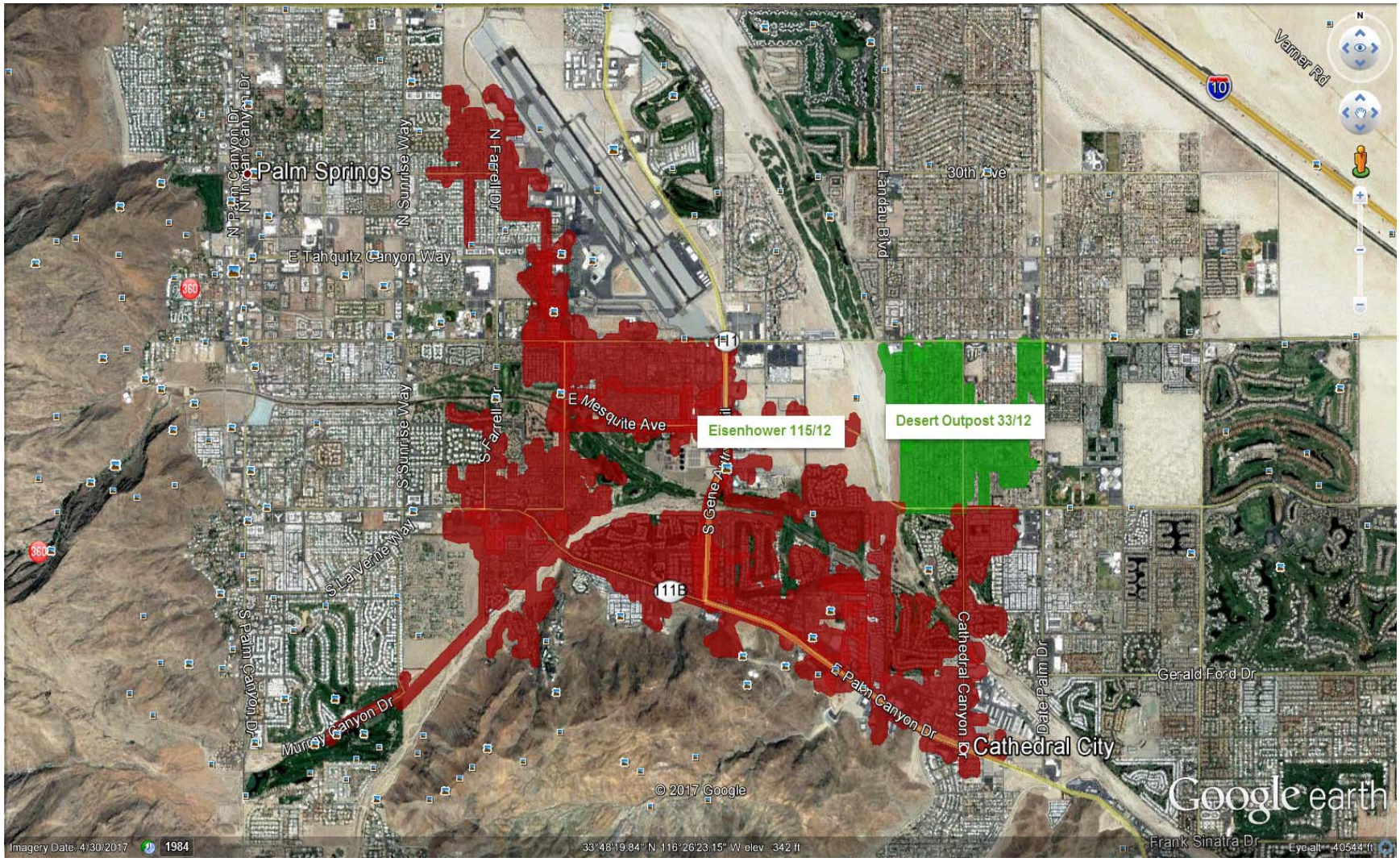
You may also submit a question by sending an email to: sceiderrfo@sce.com

Needs Assessment

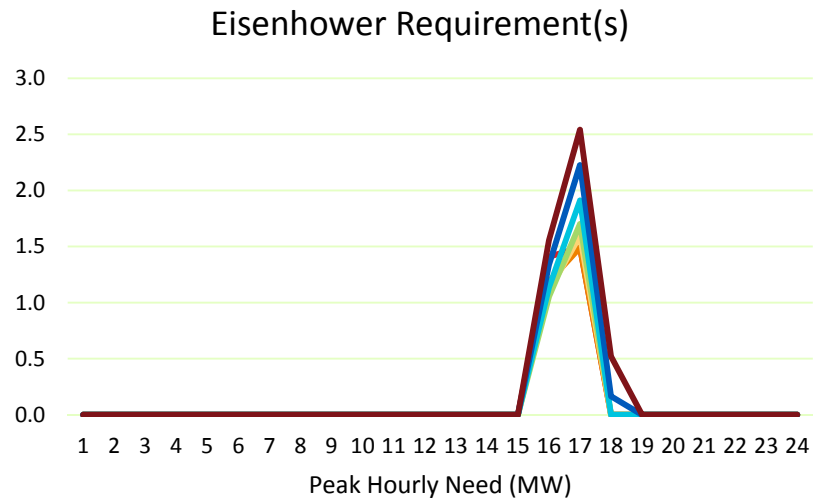
Marques Dedeaux


Lancaster
Victorville
Newbury Project
(North Coast Region)
Santa Clarita
Oxnard
Thousand Oaks
Los Angeles
Pomona
Riverside
Eisenhower Project
(Desert Region)
Palm Springs
Long Beach
Irvine

Aerial View: Eisenhower 115/12kV & Desert Outpost 33/12kV Substation & Circuit(s)



DER Attribute Requirements: Eisenhower 115/12kV

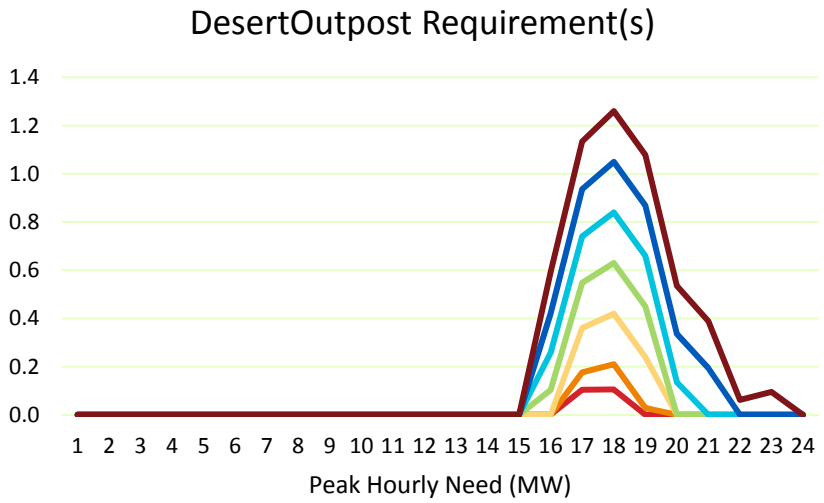


Year	Capacity (MW)	Energy Need (MWH)	Time of Year	Monthly Frequency	Yearly Frequency
2020	1.49	2.90	Summer	5	15
2021	1.49	2.68	Summer	5	15
2022	1.60	2.70	Summer	5	15
2023	1.70	2.75	Summer	5	15
2024	1.91	3.04	Summer	5	15
2025	2.23	3.73	Summer	5	15
2026	2.54	4.62	Summer	5	15

Year	Peak Hourly Need (MW)																						
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
2020	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**1.4**	**1.5**	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2021	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**1.2**	**1.5**	0.00	0.0	0.0	0.0	0.0	0.0	0.0
2022	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**1.1**	**1.6**	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2023	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**1.1**	**1.7**	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2024	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**1.1**	**1.9**	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2025	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**1.3**	**2.2**	**0.2**	0.0	0.0	0.0	0.0	0.0	0.0
2026	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**1.6**	**2.5**	**0.5**	0.0	0.0	0.0	0.0	0.0	0.0

- One (1) new substation transformer and distribution circuit at Eisenhower 115/12 kV Substation to relieve two (2) substations projected to exceed capacity limits: Eisenhower 115/12 kV and Desert Outpost 33/12 kV

DER Attribute Requirements: Desert Outpost 33/12kV

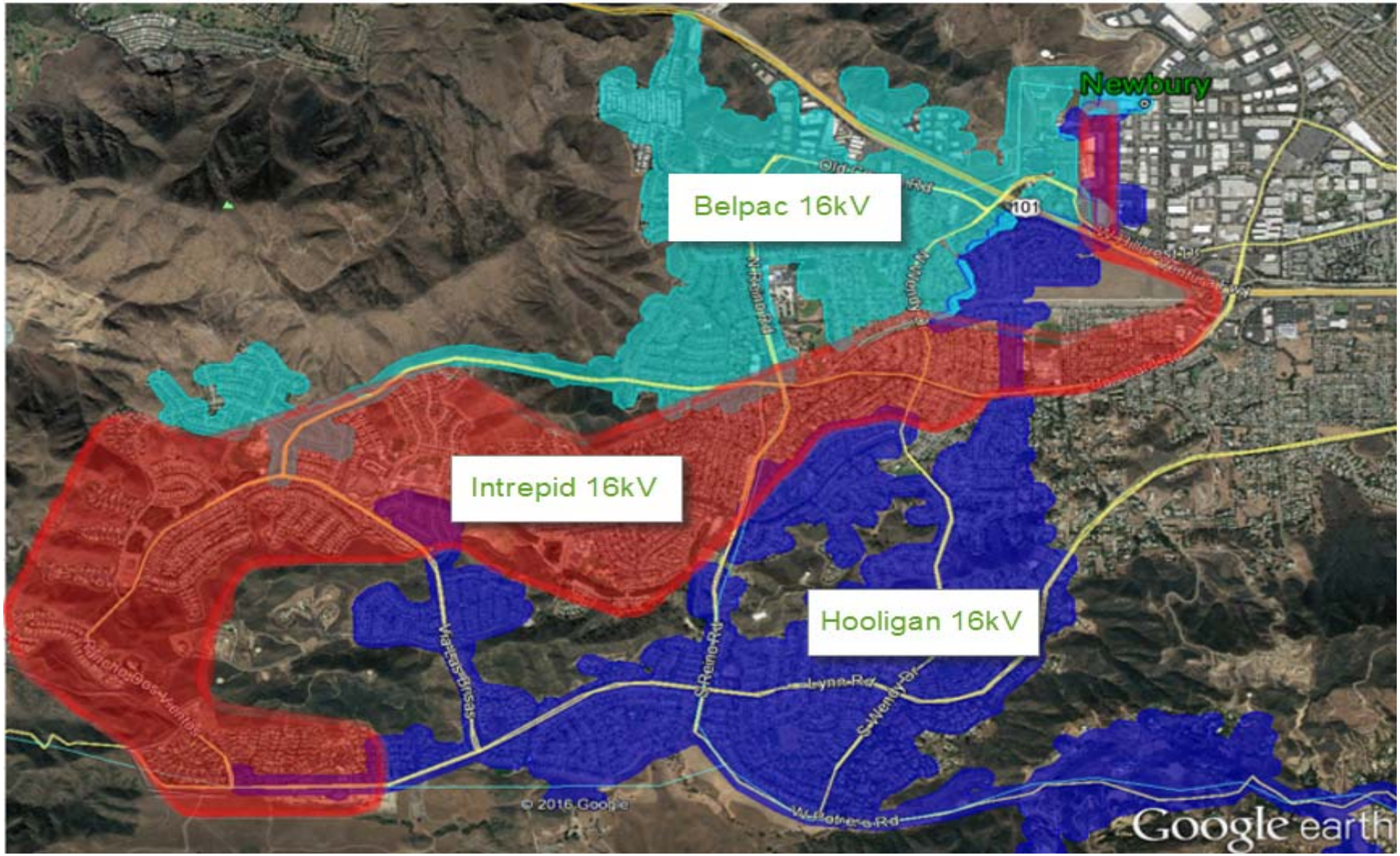


Year	Capacity (MW)	Energy Need (MWH)	Time of Year	Monthly Frequency	Yearly Frequency
2020	0.11	0.21	Summer	5	15
2021	0.21	0.41	Summer	5	15
2022	0.42	1.02	Summer	5	15
2023	0.63	1.73	Summer	10	25
2024	0.84	2.63	Summer	10	25
2025	1.05	3.80	Summer	10	25
2026	1.26	5.15	Summer	15	40

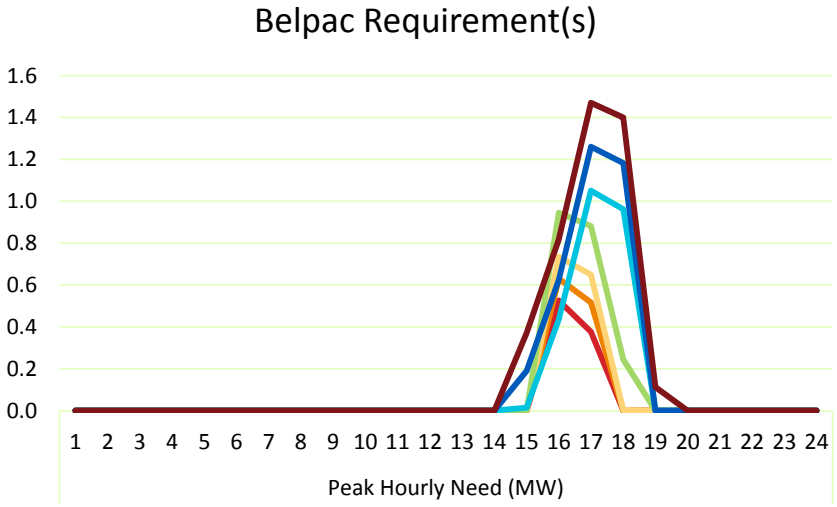
Year	Peak Hourly Need (MW)																							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
2020	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.1**	**0.1**	0.0	0.0	0.0	0.0	0.0	0.0
2021	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.2**	**0.21**	**0.0**	0.0	0.0	0.0	0.0	0.0
2022	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.4**	**0.4**	**0.2**	0.0	0.0	0.0	0.0	0.0
2023	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.1**	**0.5**	**0.6**	**0.4**	0.0	0.0	0.0	0.0	0.0
2024	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.3**	**0.7**	**0.8**	**0.7**	**0.1**	0.0	0.0	0.0	0.0
2025	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.4**	**0.9**	**1.1**	**0.9**	**0.3**	**0.2**	0.0	0.0	0.0
2026	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.6**	**1.1**	**1.3**	**1.1**	**0.5**	**0.4**	**0.1**	**0.1**	0.0

- One (1) new substation transformer and distribution circuit at Eisenhower 115/12 kV Substation to relieve two (2) substations projected to exceed capacity limits: Eisenhower 115/12 kV and Desert Outpost 33/12 kV

Aerial View: Newbury 66/16kV Substation & Circuit(s)



DER Attribute Requirements: Newbury 66/16kV

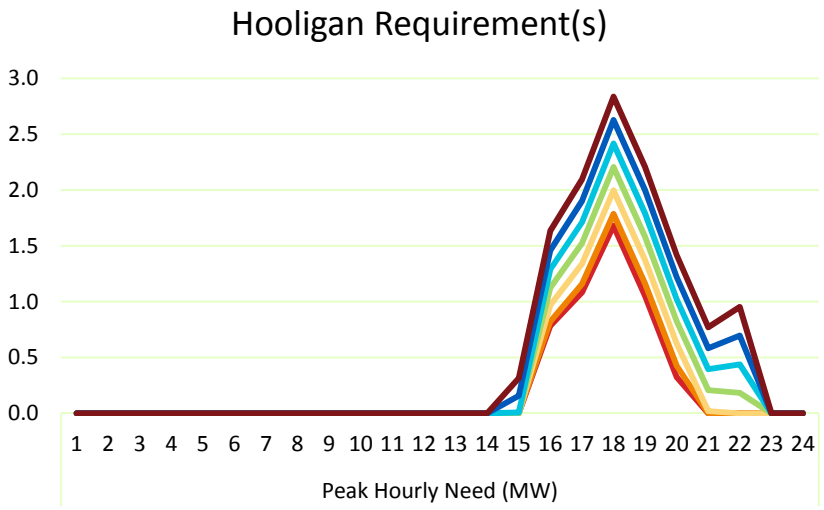


Year	Capacity (MW)	Energy Need (MWH)	Time of Year	Monthly Frequency	Yearly Frequency
2020	0.53	0.90	Summer	5	15
2021	0.63	1.15	Summer	5	15
2022	0.73	1.39	Summer	5	15
2023	0.95	2.07	Summer	5	15
2024	1.05	2.46	Summer	10	25
2025	1.26	3.26	Summer	10	25
2026	1.47	4.17	Summer	10	25

Year	Peak Hourly Need (MW)																						
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
2020	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.5**	**0.4**	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2021	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.6**	**0.5**	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2022	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.7**	**0.6**	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2023	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.9**	**0.9**	**0.2**	0.0	0.0	0.0	0.0	0.0	0.0
2024	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.4**	**1.1**	**1.0**	0.0	0.0	0.0	0.0	0.0	0.0
2025	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.2**	**0.6**	**1.3**	**1.2**	0.0	0.0	0.0	0.0	0.0	0.0
2026	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.4**	**0.8**	**1.5**	**1.4**	**0.1**	0.0	0.0	0.0	0.0	0.0

- One (1) new circuit out of Newbury 66/16 Substation is planned to relieve three (3) circuits out of Newbury 66/16: Belpac 16kV, Hooligan 16kV, and Intrepid 16kV

DER Attribute Requirements: Newbury 66/16kV

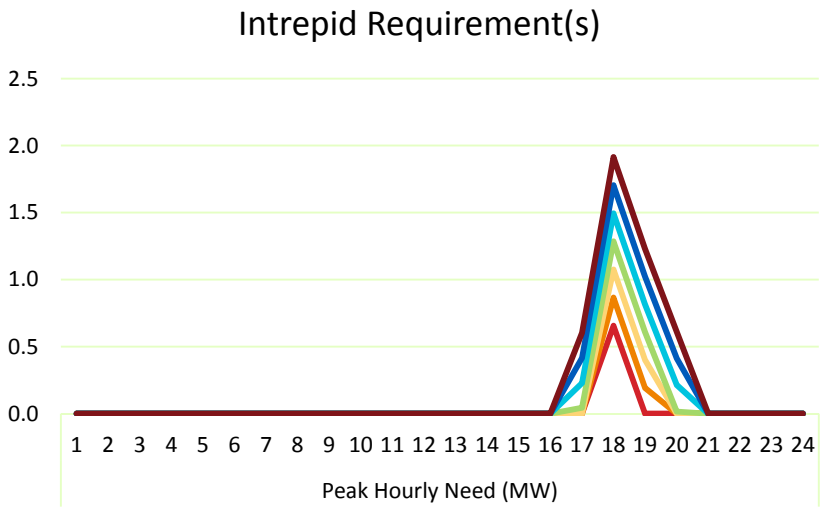


Year	Capacity (MW)	Energy Need (MWH)	Time of Year	Monthly Frequency	Yearly Frequency
2020	1.68	4.92	Summer	10	25
2021	1.79	5.35	Summer	10	25
2022	2.00	6.32	Summer	10	25
2023	2.21	7.65	Summer	15	40
2024	2.42	9.07	Summer	15	40
2025	2.63	10.64	Summer	15	40
2026	2.84	12.22	Summer	15	40

Year	Peak Hourly Need (MW)																							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
2020	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.8**	**1.1**	**1.7**	**1.1**	**0.3**	0.0	0.0	0.0	0.0
2021	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.8**	**1.2**	**1.8**	**1.2**	**0.4**	0.0	0.0	0.0	0.0
2022	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**1.0**	**1.3**	**2.0**	**1.4**	**0.6**	0.0	0.0	0.0	0.0
2023	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**1.1**	**1.5**	**2.2**	**1.6**	**0.8**	**0.2**	**0.2**	0.0	0.0
2024	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**1.3**	**1.7**	**2.4**	**1.8**	**1.0**	**0.4**	**0.4**	0.0	0.0
2025	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.2**	**1.5**	**1.9**	**2.6**	**2.0**	**1.2**	**0.6**	**0.7**	0.0	0.0
2026	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.3**	**1.6**	**2.1**	**2.8**	**2.2**	**1.4**	**0.8**	**1.0**	0.0	0.0

- One (1) new circuit out of Newbury 66/16 Substation is planned to relieve three (3) circuits out of Newbury 66/16: Belpac 16kV, Hooligan 16kV, and Intrepid 16kV

DER Attribute Requirements: Newbury 66/16kV



Year	Capacity (MW)	Energy Need (MWH)	Time of Year	Monthly Frequency	Yearly Frequency
2020	0.65	0.65	Summer	5	15
2021	0.86	1.06	Summer	5	15
2022	1.07	1.48	Summer	5	15
2023	1.28	1.95	Summer	10	25
2024	1.49	2.75	Summer	10	25
2025	1.70	3.56	Summer	10	25
2026	1.91	4.36	Summer	10	25

Year	Peak Hourly Need (MW)																							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
2020	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.7**	0.0	0.0	0.0	0.0	0.0	0.0
2021	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.9**	**0.2**	0.0	0.0	0.0	0.0	0.0
2022	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**1.1**	**0.4**	0.0	0.0	0.0	0.0	0.0
2023	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**1.3**	**0.6**	0.0	0.0	0.0	0.0	0.0
2024	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.2**	**1.5**	**0.8**	**0.2**	0.0	0.0	0.0	0.0
2025	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.4**	**1.7**	**1.0**	**0.4**	0.0	0.0	0.0	0.0
2026	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.6**	**1.9**	**1.2**	**0.6**	0.0	0.0	0.0	0.0

- One (1) new circuit out of Newbury 66/16 Substation is planned to relieve three (3) circuits out of Newbury 66/16: Belpac 16kV, Hooligan 16kV, and Intrepid 16kV

Definitions:

- Year: This field refers to the year in which the need is forecasted to occur
- Capacity: This field refers to the forecasted peak capacity (MW) need for the specified "Year"
- Energy: This field refers to the total forecasted energy need in the specified "Year"
- Time of Year: This field refers to the seasons in which the need is forecasted to occur for a specified "Year"; Seasons are defined as follows:
  - Winter: The period starting at the beginning of November, and ending at the end of February
  - Spring: The period starting at the beginning of March, and ending at the end of May
  - Summer: The period starting at the beginning of June, and ending at the end of October
- Monthly Frequency: This field refers to total forecasted number of times the procured resource will be required to serve the forecasted need during a given month within a specified season, during a specified "Year"
- Yearly Frequency: The field refers to total forecasted number of times the procured resource will be required to serve the forecasted needed, during a specified "Year"
- Peak hour need: The field refers to the forecasted peak capacity need at the specified hour, during a specified "Year"
- *Note:* All forecasted Need and Planning Assumption values are cumulative, meaning that the quantity identified in the specified "Year" including the sum of the value(s) for the previous years
- DER Planning Assumption definitions are as follows:
  - Electric Vehicles: This value is the average capacity contribution of this resource over the need hours, in the specified season, for the specified "Year"
  - Energy Efficiency: This value is of the average capacity contribution of this resource over the need hours, in the specified season, for the specified "Year"
  - Photovoltaic: This value is the forecasted nameplate to be installed in the specified "Year"

Q&A

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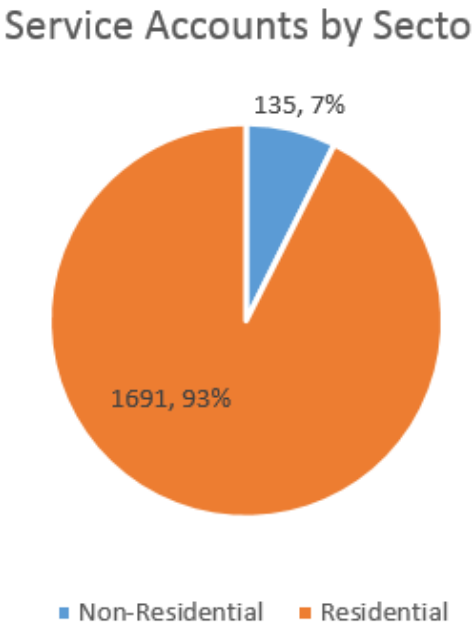
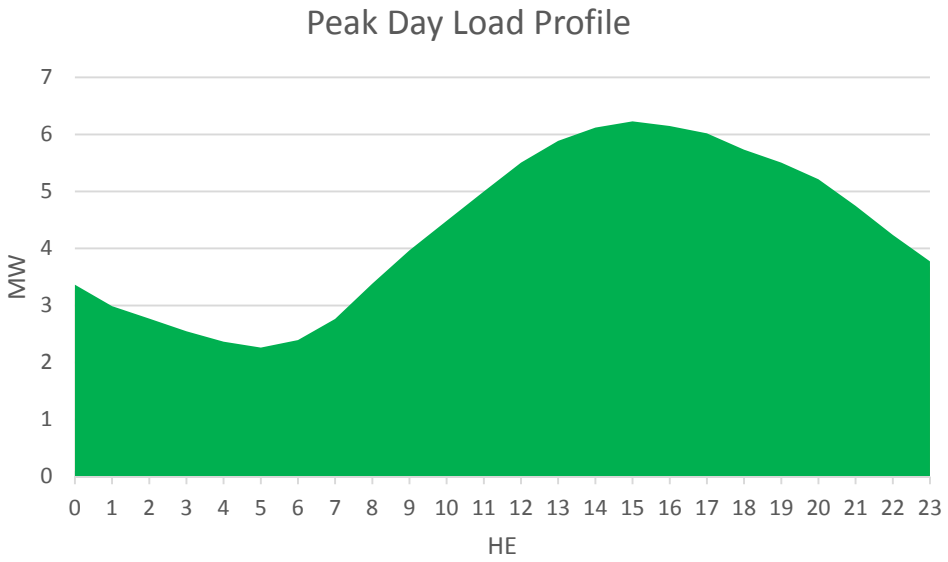
Customer Composition

Janice Wang

Desert Outpost Substation





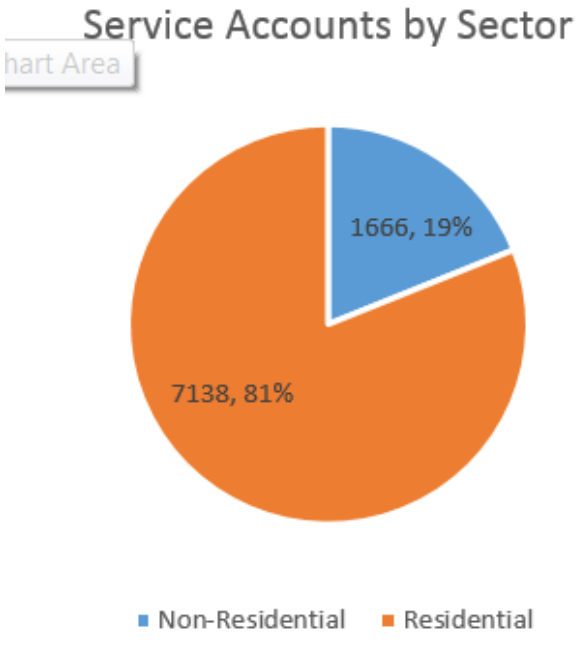
Customer Sector	Total Service Accounts	Planning Hour MW
Non-Residential	135	N/A
Residential	1,691	N/A
Total	**1,826**	**N/A**

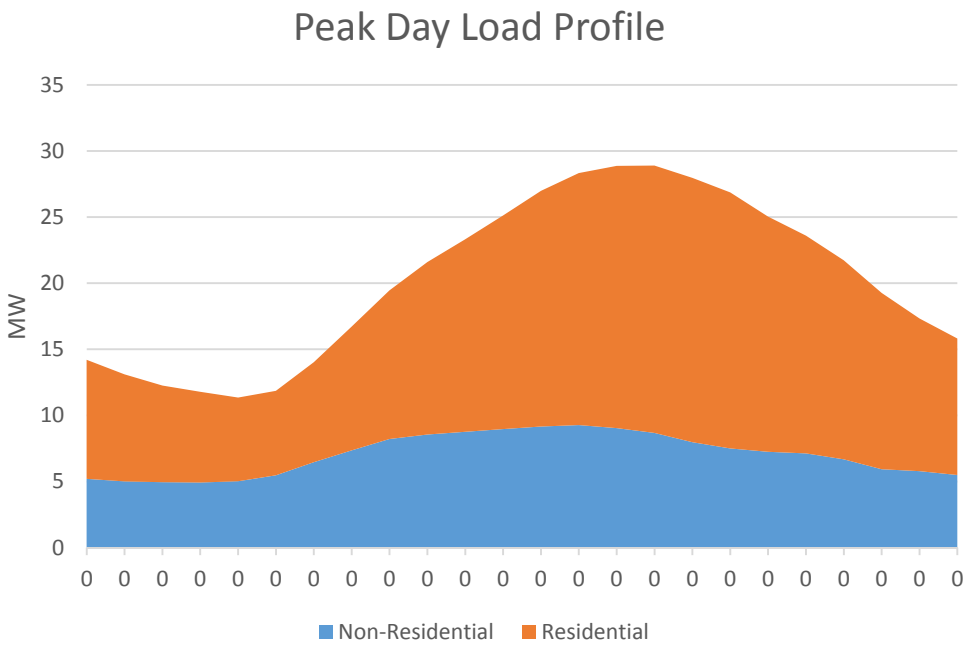
Customer Participation in Existing Programs

	NEM	PTR	SDP
# Service Accounts	90	141	121

- Peak Day/Hour: 7/28/2016, HE18
- Peak Demand not available because data did not pass the customer privacy rules

Eisenhower Substation





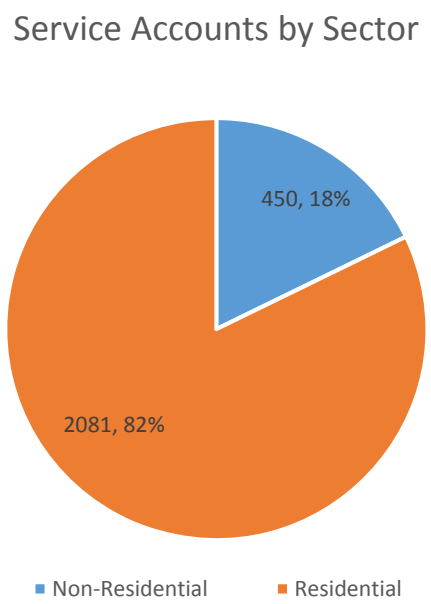
Customer Sector	Total Service Accounts	Planning Hour MW
Non-Residential	1,666	8
Residential	7,138	20
Total	**8,804**	**28**

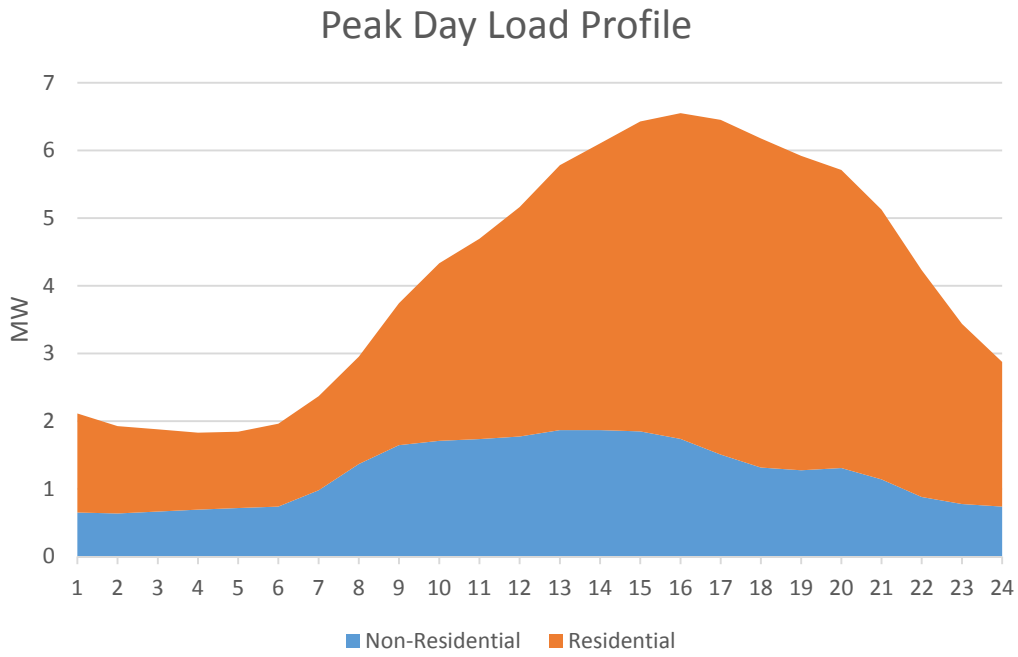
- Peak Day/Hour: 7/28/2016, HE16

Customer Participation in Existing Programs

	NEM	PTR	SDP
# Service Accounts	371	854	1,034

Newbury – Belpac Circuit





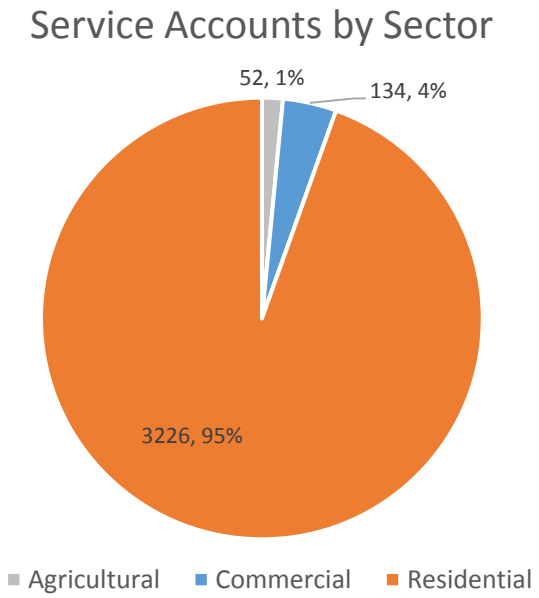
Customer Sector	Total Service Accounts	Planning Hour MW
Non-Residential	450	1
Residential	2,081	5
Total	**2,531**	**6**

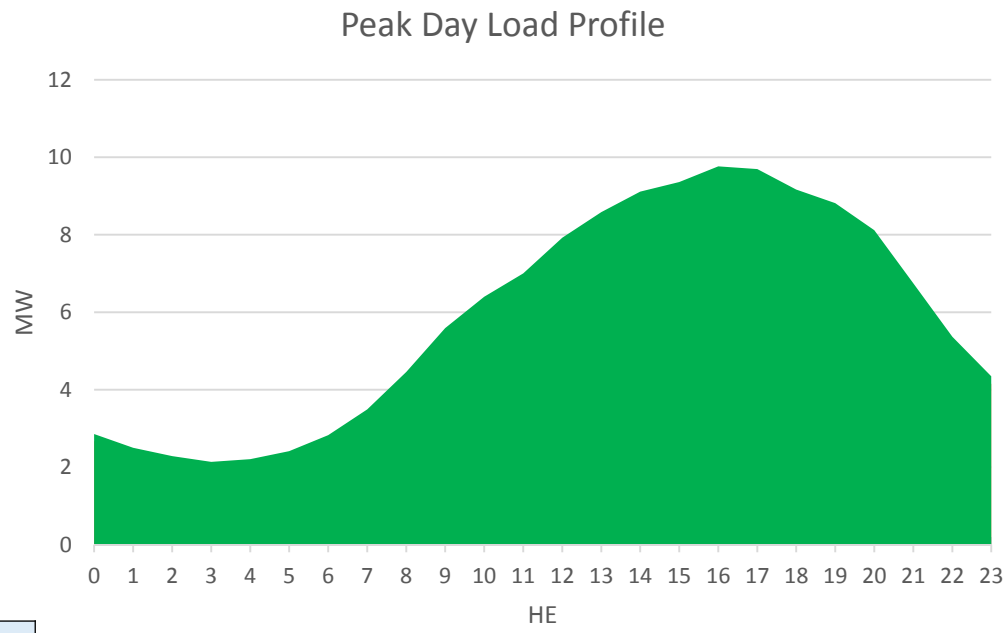
- Peak Day/Hour: 6/20/2016, HE17

Customer Participation in Existing Programs

	NEM	PTR	SDP
# Service Accounts	154	174	199

Newbury – Hooligan Circuit





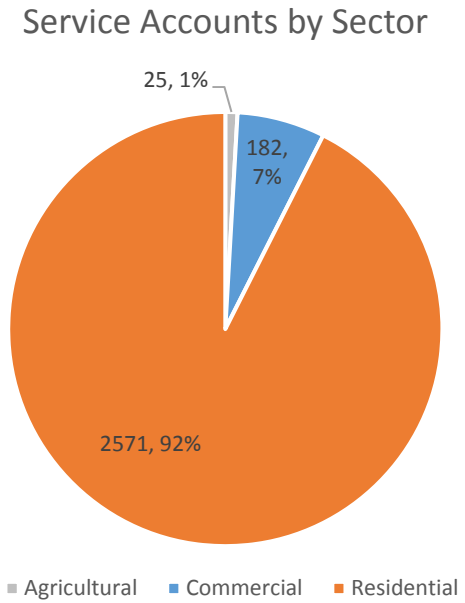
Customer Sector	Total Service Accounts	Planning Hour MW
Agricultural	52	N/A
Commercial	134	N/A
Residential	3,226	N/A
Total	**3,412**	**N/A**

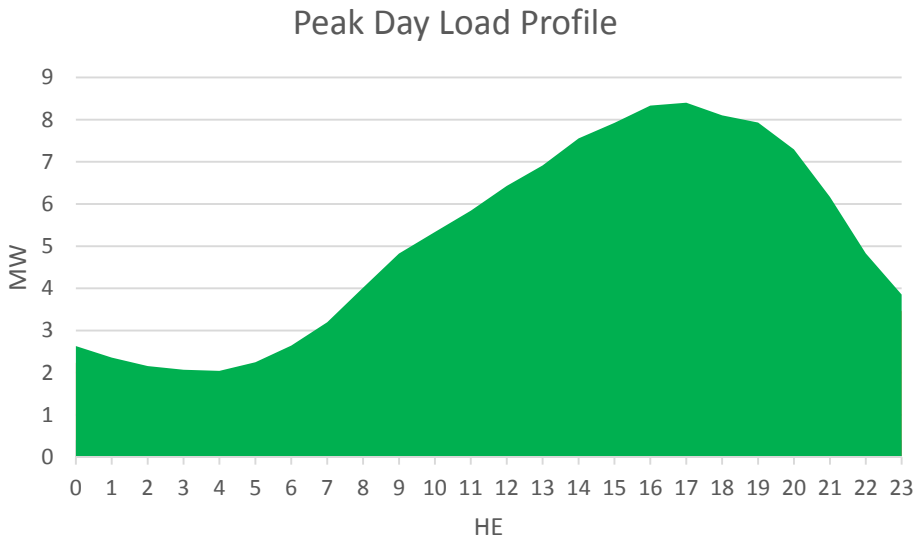
Customer Participation in Existing Programs

	NEM	PTR	SDP
# Service Accounts	300	272	305

- Peak Day/Hour: 6/20/2016, HE18
- Peak Demand not available because data did not pass the customer privacy rules

Newbury – Intrepid Circuit





Customer Sector	Total Service Accounts	Planning Hour MW
Agricultural	25	N/A
Commercial	182	N/A
Residential	2,571	N/A
Total	**2,778**	**N/A**

Customer Participation in Existing Programs

	NEM	PTR	SDP
# Service Accounts	285	233	295

- Peak Day/Hour: 6/20/2016, HE18
- Peak Demand not available because data did not pass the customer privacy rules

Q&A

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SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

Incrementality

Gene Lee

Incrementality Guiding Principles

- Based on whether BTM DERs are already being sourced through other utility procurement, programs, or tariff activities
- As established by the CPUC in D.16-12-036:
  - Ensure that customers are not paying twice for the same service
  - Ensure the reliability of a service(i.e. ensure it is not counting on a service to be there when the service might be deployed at another time or place)
  - Not be unduly burdensome to participants
  - Be technology neutral
  - Be fair and consistent
  - Recognize that DERs are eligible to provide multiple incremental services and be compensated for each service
  - Be flexible and transparent to bidders

Incrementality Framework

Wholly Incremental

Offers which provide technologies and services not (1) already being sourced or (2) reasonably expected to be sourced through another utility procurement, program, or tariff, and that meet specific identified distribution needs. These offers will be assessed full incremental value.

Partially Incremental

Offers in which some portion of the technology or service is already incentivized through another authorized utility procurement, program, or tariff, and that meet specific identified distribution needs. Only the portion of the offer that provides material enhancements to the existing project will be considered incremental (e.g., locational, temporal, or increased performance certainty).

Not Incremental

Offers which provide technologies or services already sourced under another authorized utility procurement, program, or tariff, that meet the identified distribution need, and that provide no clearly discernable incremental value beyond current offerings.

Capturing all contractual obligations for all incremental projects in single pro forma is not practical, as such agreements may need to be modified on a project by project basis, using this framework as a guide

Bidders will be required to provide robust and convincing supporting documentation of incrementality

Incrementality Framework* (Products)

Category	Distributed Generation	Dist. Gen + Energy Storage	Demand Response
Wholly Incremental	Offers that are not being compensated through SCE's distributed generation (DG) incentives, tariffs, and programs (NEM, SASH, MASH, RES-BCT, NSHP, CSI, SGIP)	Offers that are not being compensated through SCE's distributed generation (DG) incentives, tariffs, and programs (NEM, SASH, MASH, RES-BCT, NSHP, CS , SGIP)	Offers utilizing new or existing equipment that has not and will not receive any incentives (e.g., SGIP).
Partially Incremental	Offers with enhancements to an existing facility meeting SCE's needs Example: - Installation of new non-export, non-NEM generation paired with NEM generation; only the metered output of the non-NEM portion would be considered incremental	Offers with enhancements to an existing facility meeting SCE's needs Example: - Installation of energy storage (ES) to an existing NEM generating facility; only the output of additional ES during the deferral hours that would otherwise not have occurred would be considered incremental	Offers utilizing equipment that have received or will receive incentives (e.g., SGIP).
Not Incremental	A project that was compensated through other SCE DG incentives, tariffs, and programs and does not offer any incremental savings during the deferral hours.	A project that was compensated through other SCE DG incentives, tariffs, and programs and does not offer any incremental savings during the deferral hours.	Offers that meet the RFO Demand Response requirements will be considered either partially or wholly incremental.

* For a complete guide, please refer to the RFO instructions

Incrementality Framework* (Products)

Category	Energy Efficiency	Permanent Load Shift (PLS)
Wholly Incremental	Only those measures that are not active EE solutions. Example: - Solar powered LEDs - Measures not eligible to receive EE program incentives because solution codes have been retired due to Industry Standard Practice (i.e. compressed air) or are not Commission approved to receive program incentives from SCE	Offers that are not being compensated and will not be compensated through existing SCE programs and contracts such as SCE's PLS program, Local Capacity Requirement contracts or SGIP.
Partially Incremental	Offers comprised of (1) active and non-active EE solutions that meet SCE's deferral needs beyond the expectations of the active EE solutions or (2) innovative marketing strategies that increase or accelerate the otherwise expected adoption of active EE solutions Example: - Additional control/diagnostic devices added to program measures that can ensure benefits during deferral hours (i.e. implement AC-63339 data center HVAC flow mgmt. retrofit plus Server Virtualization to reduce the number of idle servers air flow)	Offers with enhancements to an existing facility meeting SCE's needs Example: - Shifting discharge to deferral hours only if deferral hours differ from existing load shifting hours compared against prior meter data
Not Incremental	Offers that are completely comprised of active EE solutions and neither increase nor accelerate the adoption of the measures beyond the otherwise expected solution Example: - Implement AC-63339 "Data Center HVAC flow management retrofit" only with no innovative marketing strategy	Existing facilities whose load shifting hours are coincident with deferral hours which has not provided any extra capacity savings

* For a complete guide, please refer to the RFO instructions

Q&A

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Offer Valuation

Michael Freeman

Valuation - Introduction

- SCE incorporates "Least-Cost Best-Fit" principles by accounting for quantifiable attributes explicitly in the valuation process ("Least-Cost") while qualitative attributes are accounted for implicitly in the selection process ("Best-Fit")
- SCE will estimate cost effectiveness, Net Present Value (NPV), of each offer by calculating discounted value of contract benefits minus the costs required to receive those benefits over the contract delivery period
- The selection process employs an NPV metric and SCE will run a rank-ordering or an optimization (along with other qualitative considerations) to develop possible selection sets for the given deferral need

Quantitative Valuation Components - Benefits

- Methodology
  - SCE will develop price forecasts (P) for various market attributes like capacity, energy, compliance and will calculate the forecasted quantity (Q) of the respective attribute provided by an offer over the contract delivery period. Then, the benefits stream will be estimated by P x Q

Component	Definition	P	Q
Resource Adequacy Value	Value of the RA capacity attribute that can be counted towards SCE's RA compliance requirement	RA Price Forecast Based on SCE's assessment of RA market prices from: - Historical RA transaction data - CEC's going forward cost of CT proxy - Net cost of new entry	SCE considers its net short RA position while determining RA quantity to ascribe to the offers DR - Load Impact Protocols (LIPs) Ren. DG/hybrids -ELCC for IFOM and Peak demand impact for BTM EE - DEER Demand Impact Protocols Storage – CPUC's decision on RA eligibility requirements for Storage resources
Energy Value	Market value of delivered energy or energy savings	Energy Price Forecast Based on forward market traded prices from broker quotes in the short run blended with fundamental prices from unit commitment dispatch model in the long run Locational price differentials may be applied where appropriate	For non-dispatchable resources: generation delivery or savings profile provided by offeror For dispatchable resources: SCE uses its dispatch models to determine the most economic dispatch of the resource given the market conditions and resource's operating characteristics and constraints*

*** Please be aware a low Energy Rate bid in the Demand Response product may result in the project getting dispatched frequently**

Quantitative Valuation Components - Benefits

Component	Definition	P	Q
AS/RT Value	Market value of Ancillary Services (AS) capacity and Real Time energy delivery	AS/RT price forecast Based on statistical regression model and fundamental model. Includes reg-up, reg-down, spin, non-spin, real-time energy prices.	For IFOM dispatchable resources, based on offer's AS capacity and SCE's dispatch model that performs co-optimization of energy and AS.
REC Value	Renewable energy credit value benefit to the eligible resources that can be counted towards SCE's RPS compliance target	REC price forecast Based on CPUC guidance, DOE's renewable premium and third party vendors outlook	SCE's RPS position and offer's generation profile
Deferral Value	Offers which defer distribution upgrade need will receive the deferred cost as an implicit benefit	Distribution upgrade project cost estimate and deferral need will be used to estimate normalized dollar value	Offer's generation delivery time period alignment with deferral need time period of the given substation/circuit

Quantitative Valuation Components - Costs

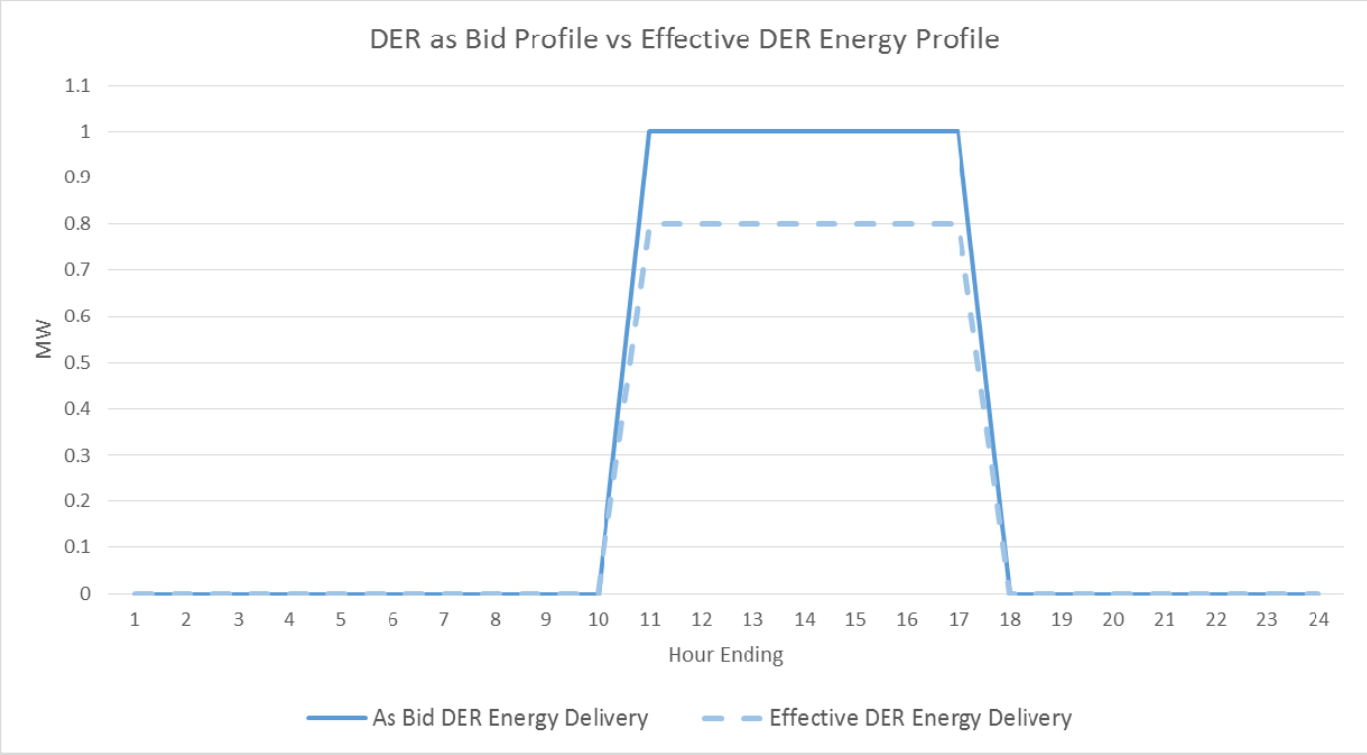
Component	Definition	Methodology
Contract Payments	Includes capacity payments, energy payments. For Storage, includes VOM and VARC also	Estimated from contract capacity rate and capacity, and/or energy rate and projected generation delivery
T&D Upgrade Cost	Transmission & Distribution network upgrade costs that are reimbursed by SCE, or any Transmission Provider under the jurisdiction of the CAISO	SCE uses Offeror's supplied aggregate network upgrade cost, and annualizes them by using SCE's discount rate and taxes over the expected life of the asset
Debt Equivalence Cost	It is the term used by credit rating agencies to describe the fixed financial obligation resulting from long-term purchased power contracts	SCE uses the Standard & Poor's methodology along with CPUC prescribed 20% risk factor, to estimate the financial obligation resulting from the contracts
Renewable Integration Cost	Applicable to intermittent renewable resources. Reflects the system costs required to provide sufficient operational flexibility to the grid to ensure adequate system reliability due to intermittent resources integration.	SCE uses CPUC's Renewable Integration Cost Adders (RICA methodology) as prescribed in its RPS procurement authorization

Qualitative Valuation Components

- Project viability
- Voltage and other power quality services
- Equipment life extension
- Permitting and interconnection
- Pre-development/development milestones
- Modifications to pro forma PSAs
- Portfolio fit of energy, capacity, deliverability and contract term
- Others

DER Effectiveness

- **Goal:**
  - Take the submitted capacity and determine the amount able to meet each circuit/substation need
- **Methodology:**
  - Evaluate past DER contracts, programs, and asset performance to determine how reliable previously solicited capacity is to serve load
    - E.g. if SCE's historical experience with a particular product is that 80% of capacity is available for delivery when needed, then the product capacity submitted in the RFO will be deducted 20% for deferral purposes



Q&A

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Working with the RFO Website

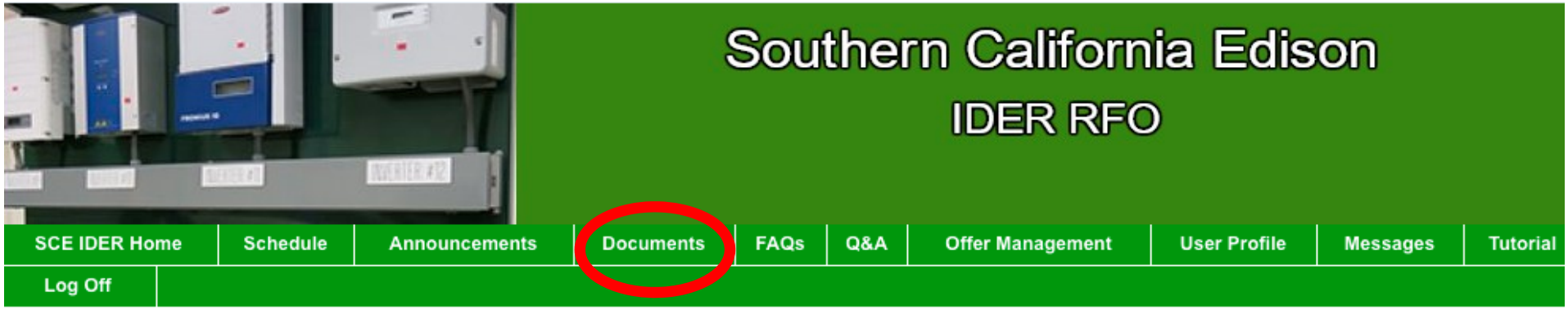
Dan Walker

RFO Website

- The RFO Website is located at: https://sceider.accionpower.com/
- In order to submit a bid, view documents and access other features, you must register on the site

RFO Website

- Once registered, be sure to access the Documents tab
- In order to submit a bid, view documents and access other features, you must register on the site



Southern California Edison (SCE)

Integrated Distributed Energy Resources (IDER)

REQUEST FOR OFFERS

("SCE IDER RFO")

You are now logged on to the SCE IDER RFO homepage.

All Offers are to be submitted online through this website.

RFO Website

Southern California Edison

IDER RFO

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Dan Walker

New Message (2)
New Q&A Question (2)

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Q&A

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Thank you for attending the IDER RFO Bidders Conference. SCE looks forward to your participation!