



SOUTHERN CALIFORNIA  
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California Energy Commission

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14-IEP-1E

TN 73663

AUG 18 2014

# **IEPR Workshop**

## **Southern California Reliability: Transmission System Additions Panel**

**August 20, 2014**

**Dana Cabbell**

**SCE - Transmission Planning**

## Status of SCE's Major Transmission Projects

Project	Location	Status	Estimated Online Date
<b>Coolwater-Lugo (220 kV T/L)</b>	San Bernardino County	CPCN Application: <ul style="list-style-type: none"> <li>• Filed Aug. 2013</li> <li>• Amended Aug. 2014</li> </ul> Construction start: Q1 2016	Q2 2018
<b>West of Devers Upgrade (220 kV T/L)</b>	Riverside / San Bernardino Counties	CPCN Application: <ul style="list-style-type: none"> <li>• Filed Oct. 2013</li> </ul> Construction start: Q1 2016	Q4 2019 / Q1 2020
<b>Alberhill (500/115 kV Substation)</b>	Lake Elsinore Area, Riverside County	CPCN Application: <ul style="list-style-type: none"> <li>• Filed Sept. 2009</li> <li>• Amended Mar. 2010</li> </ul> Construction start: TBD	Q4 2018
<b>Santa Barbara County Reliability (66 kV)</b>	Santa Barbara County	PTC Application: <ul style="list-style-type: none"> <li>• Filed Dec. 2012</li> </ul> Construction start: TBD	Q3 2016
<b>San Joaquin Cross Valley Loop (220 kV T/L)</b>	Visalia Area, Tulare County	CPCN Application: <ul style="list-style-type: none"> <li>• Filed May 2008</li> </ul> Construction in progress	Q4 2014

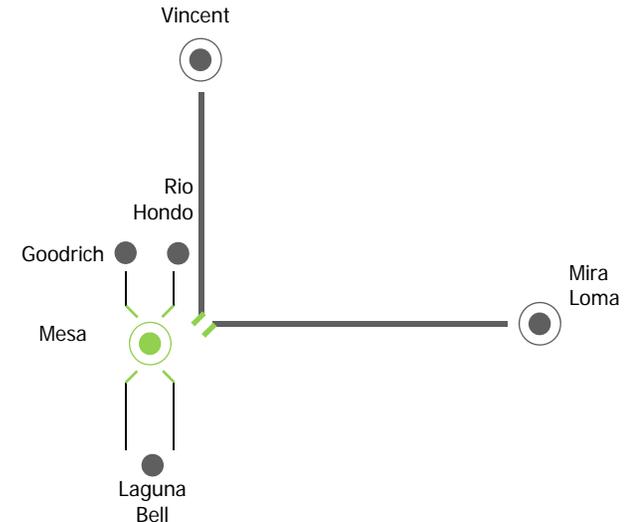
# Mesa 500 kV Substation Project

## Background:

- CAISO approved the Mesa 500 kV Substation Project in their 2013-2014 Transmission Plan in order to:
  - Address bulk system reliability
  - Alleviate the increased overall loading on transmission facilities in the LA Metro area resulting from the retirement of SONGS and OTC generation as well as long term load growth in the LA Metro and San Diego areas.
  - Reduce the amount of local capacity needed to replace retired generation

## Description:

- Expand SCE's existing Mesa 230/66/16 kV Substation to include 500 kV service.
- Loop in the Vincent-Mira Loma 500 kV, Laguna Bell-Rio Hondo 230 kV, and Goodrich-Laguna Bell 230 kV lines into the expanded Mesa Substation.



## Status:

- Engineering and Environmental analysis underway
- Expected in-service date of 12/31/2020

# OC Reactive Support – Santiago Substation

## Background:

- 6/7/13 - SONGS unit 2 & 3 officially retired
- 2013-2014 TPP CAISO identified need for dynamic reactive support in the SONGS vicinity by 12/2017
  - SDG&E is to install a 225 MVAR synchronous condenser
  - SCE is to install a 225 MVAR synchronous condenser at the Santiago substation

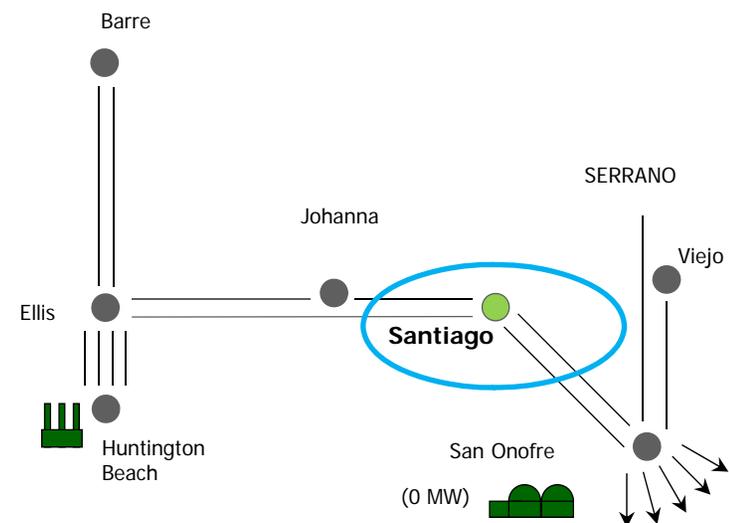
## Description:

- By relocating existing facilities, the synchronous condenser can be positioned inside the 230 kV substation.

## Status:

- Detailed engineering analysis underway
- In discussion with potential synchronous condenser vendors
- Currently on track to meet the in-service date of 12/2017

## Santiago Substation (Irvine, CA)



# Tehachapi Renewable Transmission Project

## Background:

- Construct new high-voltage transmission facilities (500 and 230 kV) to connect the single largest wind generation régime in the United States
- Deliver 4,500 MW of predominately new wind generation resources to Californians

## Status:

- Segment 6: Fully constructed and partially In-Service
- Segment 7: Under construction
- Segment 8: Under construction
  - SCE will begin construction of the underground portion in fourth quarter of 2014 -- estimated completion: June 2016
- Segment 11: Under construction with expected completion date May 2015

