South Santa Barbara County Reliability Issues

June 2, 2014

SCE Santa Barbara Service Area Reliability

 Southern California Edison (SCE) is considering a variety of solutions to enhance reliability in the Santa Barbara Service Area, which will support delivering reliable power in event of an emergency with the loss of the Goleta–Santa Clara Nos.1 & 2 220 kV Transmission Lines.



Reliability Concerns in SCE's Santa Barbara Service Area

The Santa Barbara Service Area, with 82,700 metered customers, is served power by two 220 kV transmission lines, the Goleta–Santa Clara Nos. 1 & 2 Transmission Lines. Listed below are the factors contributing to the reliability concerns in the Santa Barbara Service Area.

- 1) <u>SAME TOWERS</u>: The two 220 kV transmission lines are located on the same towers, creating risk of simultaneous outage.
- LOCATION OF TOWERS: The two 220 kV transmission lines are located in terrain where landslides caused by heavy rainfall (e.g.1997-98 El Niño condition) and frequent fires (e.g. 2007 Zaca, 2008 Gap, 2008 Tea and 2009 Jesusita fires) create heightened risks to the transmission lines and towers.
- 3) <u>GEOGRAPHICALLY ISOLATED SERVICE AREA</u>: The Santa Barbara System is geographically isolated from the rest of SCE's service area, which constrains our ability to deliver power through alternate transmission routes in the event of an outage of the two 220 kV transmission lines. The area is isolated to the west and south by the Pacific Ocean and the west and north by PG&E service territory. See map on page 4 showing the Santa Barbara Service Area.
- 4) <u>INADEQUATE BACK-UP POWER:</u> The existing back-up power source to the two 220 kV transmission lines is not adequate to serve the entire area.

Map of Santa Barbara County Service Area



Potential Impacts if 220 kV Transmission Lines are Lost

- If an outage of both 220 kV transmission lines were to occur, all 82,700 metered customers in South Santa Barbara County would lose power until emergency electrical power could be delivered to the area.
- Service disruption would initially affect all customers, including critical services (e.g. hospitals, schools, universities, traffic lights and street lights).
- Natural disasters, such as landslides or earthquakes, could limit access for transmission line/tower repair or replacement for possibly up to several weeks.
- Without an answer to local reliability needs in South Santa Barbara County, long term outages could occur for several weeks.

Procurement Opportunity

- The California Public Utilities Commission has required SCE to procure 215 MW to 290 MW of new resources within the Moorpark Sub-Area (Ventura and Santa Barbara County portion of SCE service territory).
- SCE issued a Request for Offer (RFO) to procure these resources on September 12, 2013. The RFO includes a preference for resources sited in the Santa Barbara County Service Area because it would help address reliability concerns in the area.