

## 2013/2014 ISO Reliability Assessment - Preliminary Study Results

Study Area: **SCE Metro - Summer Peak**



### Thermal Overloads

ID	Overloaded Facility	Worst Contingency	Category	Category Description	Loading (%)			Potential Mitigation Solutions
					2015 Summer Peak	2018 Summer Peak	2023 Summer Peak	
LAB-SP-T-1	Vincent 500/230 kV #1 Bank	Vincent 500/230 kV #3 or #4 Bank	B	T-1	<100	105	112	Energize the existing spare bank within 1 hour after the contingency
LAB-SP-T-2	Vincent 500/230 kV #1 Bank	Vincent 500/230 kV #3 and #4 Bank with available spare energized	C	T-1/T-1	<100	105	112	(1) Build a new 500 kV source in the LA Metro area or (2) Redispatch available generation and add new DG
LAB-SP-T-3	Ellis—Santiago 230 kV line	N.Gila—Imperial Valley 500 kV & Ellis—Johanna 230 kV	C	L-1/L-1	110	105	124	(1) Increase the rating of the line to the full rating of the conductor or (2) Redispatch available generation and add new DG
LAB-SP-T-4	Ellis—Johanna 230 kV line	N.Gila—Imperial Valley 500 kV & Ellis—Santiago 230 kV line	C	L-1/L-1	104	100	117	(1) Increase the rating of the line to the full rating of the conductor or (2) Redispatch available generation and add new DG
LAB-SP-T-5	Serrano 500/230 kV #3 Bank	Serrano 500/230 kV #1 & #2 Banks	C	T-1/T-1	115	118	116	(1) Energize spare transformer after the first contingency or (2) Add a new 500 kV source
LAB-SP-T-6	Chino—Mira Loma # 3 230 kV line	Mira Loma 500/230 kV #1 & #2 Banks	C	T-1/T-1	108	107	113	Move Chino—Mira Loma #2 or #3 line to the Mira Loma East 230 kV bus

San Onofre Nuclear Generation Station was retired on June 7, 2013 and therefore was removed from the base cases used for the 2013/14 ISO transmission planning process.

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## Voltage Deviations



ID	Substation	Worst Contingency	Category	Category Description	Post Cont. Voltage Deviation %			Potential Mitigation Solutions
					2015 Summer Peak	2018 Summer Peak	2023 Summer Peak	
X-SP-VD-1	Goleta 230/66 kV	Santa Clara–Goleta #1 230 kV line	B	G-1/L-1	<5	6	<5	(1) Dispatch Elwood or Exgen generator or (2) add switchable shunt capacitor

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### Single Contingency Load Drop

ID	Worst Contingency	Category	Category Description	Amount of Load Drop (MW)			Potential Mitigation Solutions
				2015 Summer Peak	2018 Summer Peak	2023 Summer Peak	

No single contingency resulted in total load drop of more than 250 MW.

## 2013/2014 ISO Reliability Assessment - Preliminary Study Results

Study Area: **SCE Metro - Summer Light Load & Spring Off-Peak**



### Single Contingency Load Drop

ID	Worst Contingency	Category	Category Description	Amount of Load Drop (MW)			Potential Mitigation Solutions
				2015 Summer Off-Peak	2018 Summer Light Load	2023 Summer Off-Peak	

No single contingency resulted in total load drop of more than 250 MW.

## 2013/2014 ISO Reliability Assessment - Preliminary Study Results

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***Single Source Substation with more than 100 MW Load***

ID	Substation	Load Served (MW)			Potential Mitigation Solutions
		2015 Summer Peak	2018 Summer Peak	2023 Summer Peak	

No single source substation with more than 100 MW Load

Study Area: **SCE Metro - Summer Light Load & Spring Off-Peak**



*Single Source Substation with more than 100 MW Load*

ID	Substation	Load Served (MW)			Potential Mitigation Solutions
		2015 Summer Off-Peak	2018 Summer Light Load	2023 Summer Off-Peak	

No single source substation with more than 100 MW Load