

2010 LCR Study San Diego Local Area

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Stakeholder Meeting

April 14, 2009

San Diego LCR Area



San Diego Area Boundary Transmission Lines

- 1) Imperial Valley Miguel 500 kV Line
- 2) Otay Mesa Tijuana 230 kV Line
- 3) San Onofre San Luis Rey #1 230 kV Line
- 4) San Onofre San Luis Rey #2 230 kV Line
- 5) San Onofre San Luis Rey #3 230 kV Line
- 6) San Onofre Talega #1 230 kV Line
- 7) San Onofre Talega #2 230 kV Line



San Diego Area Load and Resources (MW)

Total 1 in 10 Load	5127	
Generation		
Market Generation	3490	
Muni Generation	0	
Wind Generation	9	
QF Generation	196	
Total Qualifying Capacity	3695	
SDG&E Non-simultaneous Import capability	2500	
with a segment of SWPL Out		



SDG&E Non-simultaneous Import Capability





El Cajon Sub-area

- Contingency: the loss of El Cajon-Jamacha 69 kV line followed by the loss of Miguel-Granite-Los Coches 69 kV line
- LCR: 72 MW (includes 0 MW of QF and 14 MW of deficiency)
- Limiting component: Thermal overload on the Garfield-Murray 69 kV line

Rose Canyon Sub-area

- Contingency: the loss of Old Town-Pacific Beach 69 kV line followed by the loss of Rose Canyon-Penasquitos 69 kV line
- LCR: 100 MW (includes 0 MW of QF)
- Limiting component: thermal overload on the Eastgate Rose Canyon 69 kV line



Bernardo Sub-area

- Contingency: the loss of Artesian Sycamore 69 kV line followed by the loss of Poway-Rancho Carmel 69 kV line
- LCR: 62 MW (includes 0 MW of QF and 22 MW of deficiency)
- Limiting component: Thermal overload on the Felicita Tap Bernardo 69 kV line

Border Sub-area

- Contingency: the loss of Border Miguel followed by the loss of Imperial Beach-Otay-San Ysidro 69 kV line
- LCR: 15 MW (includes 0 MW of QF)
- Limiting component: thermal overload on Otay Otay Lake Tap 69 kV line



South Bay Sub-area

- Contingency: the loss of South Bay-Los Coches 138 kV line followed by the loss of South Bay-Grant Hill 138 kV line
- LCR: 440 MW (includes 89 MW of QF)
- Limiting component: South Bay 138/69 kV Bank
- Dispatching all of the needed generation to mitigate the overload on South Bay 138/69 kV bank causes other overloads in the South Bay area.
- In order to eliminate the sub-area, the generation from South Bay Units 2, 3, and 4 needs to be limited to 302 MW (decking 244 MW). In order to eliminate just the South Bay Unit 1 and South Bay GT requirement from the sub-area, the generation from Units 2, 3 and 4 needs to be limited to 397 MW (decking 149 MW).



San Diego Overall

- Contingency: the loss of Southwest Power Link with the Otay Mesa Combined Cycle power plant out of service
- LCR: 3242 MW (include 205 MW of QF/Wind)
- Limiting component: South of San Onofre (Path 44) nonsimultaneous import capability of 2500 MW



San Diego Area LCR

	QF	Wind	Market	Max. Qualifying	
	(MW)	(MW)	(MW)	Capacity (MW)	
Available generation	196	9	3490	3695	
	Existing Generation Capacity				
	Existing	Generatio	n Capacity		Total MW LCR
	Existing	Generation	n Capacity W)	Deficiency (MW)	Total MW LCR Need
Category B (Single)	Existing	Generation Needed (M 3242	n Capacity W)	Deficiency (MW) 0	Total MW LCR Need 3242



Changes

Since our last stakeholder meeting:

1) Update Pmax for Otay Mesa at 615 MW

2) Updated NQC

Since last year:

1) Load forecast drives LCR up by 75 MW

2) Otay Mesa – becomes the new largest resource outage therefore results in an increase of LCR by another 74 MW

3) New peaker, biomass and hydro modeled

Your comments and questions are welcome.

For written comments, please send to: <u>RegionalTransmission@caiso.com</u>

