

California Independent System Operator Corporation

Year 2007 Local Capacity Requirements Study LA Basin Area

Summary of Findings

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LA Basin Area Boundary Transmission Lines

- 1) San Onofre San Luis Rey #1, #2, & #3 230 kV Lines
- 2) San Onofre Talega #1 & #2 230 kV Lines
- 3) Lugo Mira Loma #1, #2 & #3 500 kV Lines
- 4) Sylmar LA Sylmar S #1, #2 & #3 230/230 kV Transformers
- 5) Sylmar S Pardee #1 & #2 230 kV Lines
- 6) Vincent Mesa Cal #1 230 kV Line
- 7) Antelope Mesa Cal #1 230 kV Line
- 8) Vincent Rio Hondo #1 & #2 230 kV Lines
- 9) Eagle Rock Pardee #1 230 kV Line
- 10) Devers Valley #1 500 kV Line
- 11) Devers #1 & #2 500/230 kV Transformers
- 12) Devers Coachelv # 1 230 kV Line
- 13) Mirage Ramon # 1 230 kV Line
- 14) Julian Hinds-Eagle Mountain 230 kV





LA Basin Area Boundary Substations

- Devers 500 kV
- Mirage 230 kV
- Vincent 230 kV
- San Onofre 230 kV
- Sylmar 230 kV
- Lugo 500 kV



LA Basin Area 2007 Load & Resources (MW) GENERATION LOAD 19055 Market 7033 Load **Pump Load** 97 QF+Muni 1205 **Nuclear** Trans Losses 173 2220 TOTAL 10458 19325





Western & Eastern LA Basin

Western LA Basin Critical Contingency

- Loss of Lugo-Victorville 500 kV, followed by loss of Sylmar-Gould 230 kV line
- Limited by the emergency rating of the Eagle Rock- Mesa 230 kV line (3000 A CB).

Eastern LA Basin Critical Contingency

- Loss of Devers Valley 500 kV line, followed by loss of two Lugo Miraloma 230 kV lines # 2 & # 3
- Loss of one SONG unit, followed by loss of two Lugo Miraloma 230 kV lines # 2 & # 3
- Limited voltage violations associated with voltage collapse



Western & Eastern LA Basin

Loss of SONG Contingency

- Current South of Lugo (SOL) limit is 5600 MW
- Loop in of Lugo Serrano at Mira Loma
 - Increase in SOL limit (with RAS) expected available for 2007
 - RAS Drops load at Chino, Padua and Mira Loma Substations
- Without SOL increase, LCR requirements go up by an additional 900 MW
- SCE needs to confirm new SOL Path Rating



LA Basin LCR Overall System Requirements

	QF/Wind	Muni	Nuclear	Market	Max. Qualifying
	(MW)	(MW)	(MW)	(MW)	Capacity (MW)
Available Gen	829	376	2220	7033	10458

	Existing Generation		
	Capacity Needed	Deficiency	Total MW
	(MW)	(MW)	Requirement
Category B (Single)	8843	0	8843
Category C			
(Multiple)	8843	0	8843
West/East (MW)	6791/2052		

	<u>2006</u>	<u>2007</u>	<u>Difference</u>
LA Basin Load (MW)	18839	19325	486
LCR (MW)	8127	8843	716



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Stakeholder Comments