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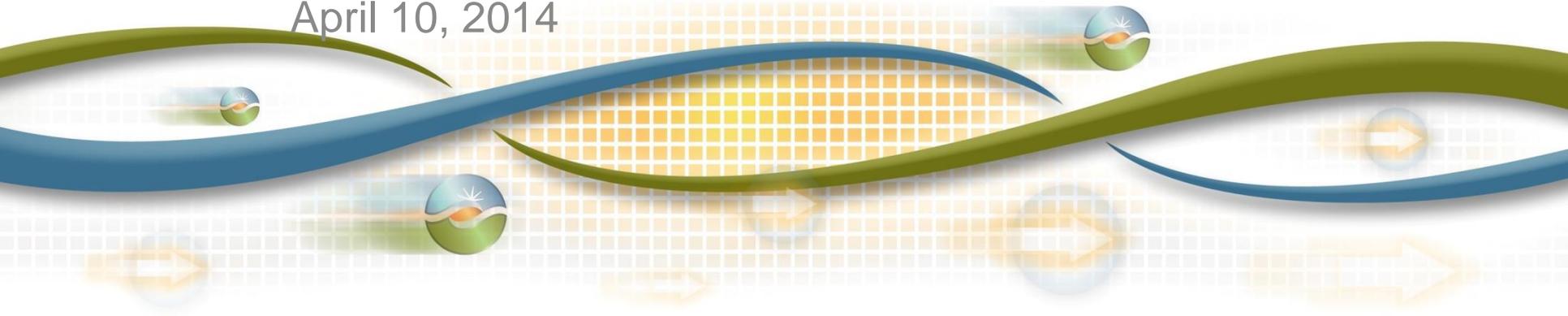
# 2015 and 2019 Final LCR Study Results - Big Creek/Ventura and LA Basin

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# LA Basin Area Loads & Resources

## *Load*

Year	Load (MW)	Pump Load (MW)	Transmission Losses (MW)	Total (MW)
2015	19819	30	121	19970
2019	20344	30	132	20506

## *Available Generation*

Year	QF/Wind (MW)	Muni (MW)	Nuclear (MW)	Market (MW)	Max. Qualifying Capacity (MW)
2015	1045	1163	0	8985	11193
2019	1044	1163	0	8985	11192

# Critical Area Contingencies

## **El Nido Sub-area – Category C**

Contingency: Hinson-La Fresa 230 kV line out followed by Double Circuit Tower Line Redondo-La Fresa #1 and #2 230 kV lines

Limiting component: Voltage collapse

2015 LCR need: 515 MW (includes 50 MW of QF and Muni generation )

2019 LCR need: 518 MW (includes 50 MW of QF and Muni generation )

## **El Nido Sub-area – Category B**

No requirement.

# Critical Area Contingencies

## **West of Devers Sub-area – Category C**

Contingency: San Bernardino-Etiwanda 230 kV line out followed by San Bernardino-Vista 230 kV line or vice versa

Limiting component: Voltage collapse

2015 LCR need: 485 MW (includes 3 MW of QF generation )

2019 LCR need: 485 MW (includes 3 MW of QF generation )

## **West of Devers Sub-area – Category B**

No requirement.

# Critical Area Contingencies

## **Valley-Devers Sub-area – Category C**

Contingency: Palo Verde-Colorado River 500 kV line out followed by Alberhill-Serrano 500 kV line or vice versa

Limiting component: Camino -Iron Mountain 230 kV line

2015 LCR need :1453 MW (includes 208 MW of QF and Wind)

2019 LCR need: 1180 MW (includes 208 MW of QF and Wind)

## **Valley-Devers Sub-area – Category B**

No requirement.

# Critical Area Contingencies

## **Western LA Basin Sub-area – Category C**

Contingency: Serrano-Villa Park #2 230 kV line out followed by Serrano-Lewis #1 or #2 230 kV line or vice versa

Limiting component: Serrano-Villa Park #1 230 kV line

2015 LCR need: 4,583 MW (includes 1,155 MW of QF, Muni and Wind)

2019 LCR need: 5,096 MW (includes 1,155 MW of QF, Muni and Wind)

## **Western LA Basin Sub-area – Category B**

Non binding – multiple combinations possible.

# Critical Area Contingencies

## LA Basin Overall – Category B

Contingency: Palo Verde-Colorado River 500 kV line with the biggest G-1 out of service

Limiting component: South of Lugo 500 kV Path rating

2015 LCR need: 8,620 MW (includes 2,208 MW of QF, Muni and Wind)

Contingency: Sylmar-Gould 230 kV line out with Redondo #7 already out of service

Limiting component: Sylmar-Eagle Rock 230 kV line

2019 LCR need: 9,059 MW (includes 2,208 MW of QF, Muni and Wind)

## LA Basin Overall – Category C

Contingency: Miguel-ECO 500 kV line followed by Imperial Valley-Suncrest 500 kV line

Limiting component: Voltage instability

2015 LCR need: 9,097 MW (includes 2,208 MW of QF, Muni and Wind)

Contingency: Sylmar-Gould 230 kV line followed by Lugo-Victorville 500 kV line (With CFE phase shifter, assuming 520 MW additional capacity in SDGE)

Limiting component: Sylmar-Eagle Rock 230 kV line

2019 LCR need: 9,119 MW (includes 2,208 MW of QF, Muni and Wind)

# Changes

## Since last year:

- 1) 2015 Load forecast is up by 276 MW vs. 2014
- 2) Total overall 2015 LCR is down by 1333 MW for Category C, mainly due to new reactive power support.
- 3) 2019 load forecast is down by 201 MW vs. 2018
- 4) Total overall Long-term LCR is down by 1,952 MW mainly due to transmission projects.

## Since last stakeholder call:

- 1) Updated NQC
- 2) Total overall 2015 LCR is down by 2300 MW for Category C, mainly due to new reactive power support.

**Your comments and questions are welcome.**

For written comments, please send to: [RegionalTransmission@caiso.com](mailto:RegionalTransmission@caiso.com)

# Big Creek/Ventura Area Loads & Resources

## *Load*

Year	Load (MW)	Pump Load (MW)	Transmission Losses (MW)	Total (MW)
2015	4372	363	72	4807
2019	4451	363	75	4889

## *Available Generation*

Year	QF (MW)	Muni (MW)	Market (MW)	Max. Qualifying Capacity (MW)
2015	768	392	4203	5363
2019	768	392	4203	5363

# Critical Area Contingencies

## **Rector Sub-area – Category B**

Contingency: Vestal-Rector #1 or #2 230 kV line with Eastwood out of service

Limiting component: Remaining Vestal-Rector 230 kV line

2015 LCR need: 479 MW (includes 10 MW of QF generation )

2019 LCR need: 479 MW (includes 10 MW of QF generation )

## **Rector Sub-area – Category C**

Same as above.

## **Vestal Sub-area – Category B**

Contingency: Magunden-Vestal #1 or #2 230 kV line with Eastwood out of service

Limiting component: Remaining Magunden-Vestal 230 kV line

2015 LCR need: 762 MW (includes 131 MW of QF generation )

2019 LCR need: 744 MW (includes 131 MW of QF generation )

## **Vestal Sub-area – Category C**

Same as above.

# Critical Area Contingencies

## **Santa Clara Sub-area – Category C**

Contingency: Pardee-S. Clara 230 kV line followed by DCTL Moorpark-S. Clara #1 and #2 230 kV lines

Limiting component: Voltage collapse

2015 LCR need: 264 MW (includes 67 MW of QF generation )

2019 LCR need: 264 MW (includes 67 MW of QF generation )

## **Santa Clara Sub-area – Category B**

No requirement.

# Critical Area Contingencies

## **Moorpark Sub-area – Category C**

Contingency: Pardee-Moorpark #3 230 kV line followed by DCTL Pardee-Moorpark #1 and #2 230 kV lines

Limiting component: Voltage collapse

2015 LCR need: 479 MW (includes 96 MW of QF generation )

2019 LCR need: 479 MW (includes 96 MW of QF generation )

## **Moorpark Sub-area – Category B**

No requirement.

# Critical Area Contingencies

## **Big Creek/Ventura Overall – Category C**

Contingency: Sylmar-Pardee #1 or #2 230 kV line followed Lugo-Victorville 500 kV or vice versa

Limiting component: Remaining Sylmar-Pardee 230 kV line

2015 LCR need: 2,270 MW (includes 1,160 MW of QF, Muni and Wind )

2019 LCR need: 2,499 MW (includes 1,160 MW of QF, Muni and Wind )

## **Big Creek/Ventura Overall – Category B**

Contingency: Sylmar-Pardee #1 or #2 230 kV line with Omond #2 out of service

Limiting component: Remaining Sylmar-Pardee 230 kV line

2015 LCR need: 2,095 MW (includes 1,160 MW of QF, Muni and Wind )

2019 LCR need: 2,619 MW (includes 1,160 MW of QF, Muni and Wind )

# Changes

## Since last year:

- 1) 2015 load forecast is up by 227 MW vs. 2014
- 2) Load reallocation between substations in the area
- 3) Segments of TRTP project
- 4) Overall LCR is up by 20 MW due to both load increase and flow pattern changes after SONGS retirement
- 5) 2019 load forecast is down by 318 MW vs. 2018
- 6) Overall long-term LCR is down by 49 MW due to load decrease, flow pattern changes after SONGS retirement, and also the load distribution changes inside the area

## Since last stakeholder call:

- 1) Updated NQC

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