



California ISO
Your Link to Power

2011 Draft LCR Study Results Big Creek/Ventura and LA Basin

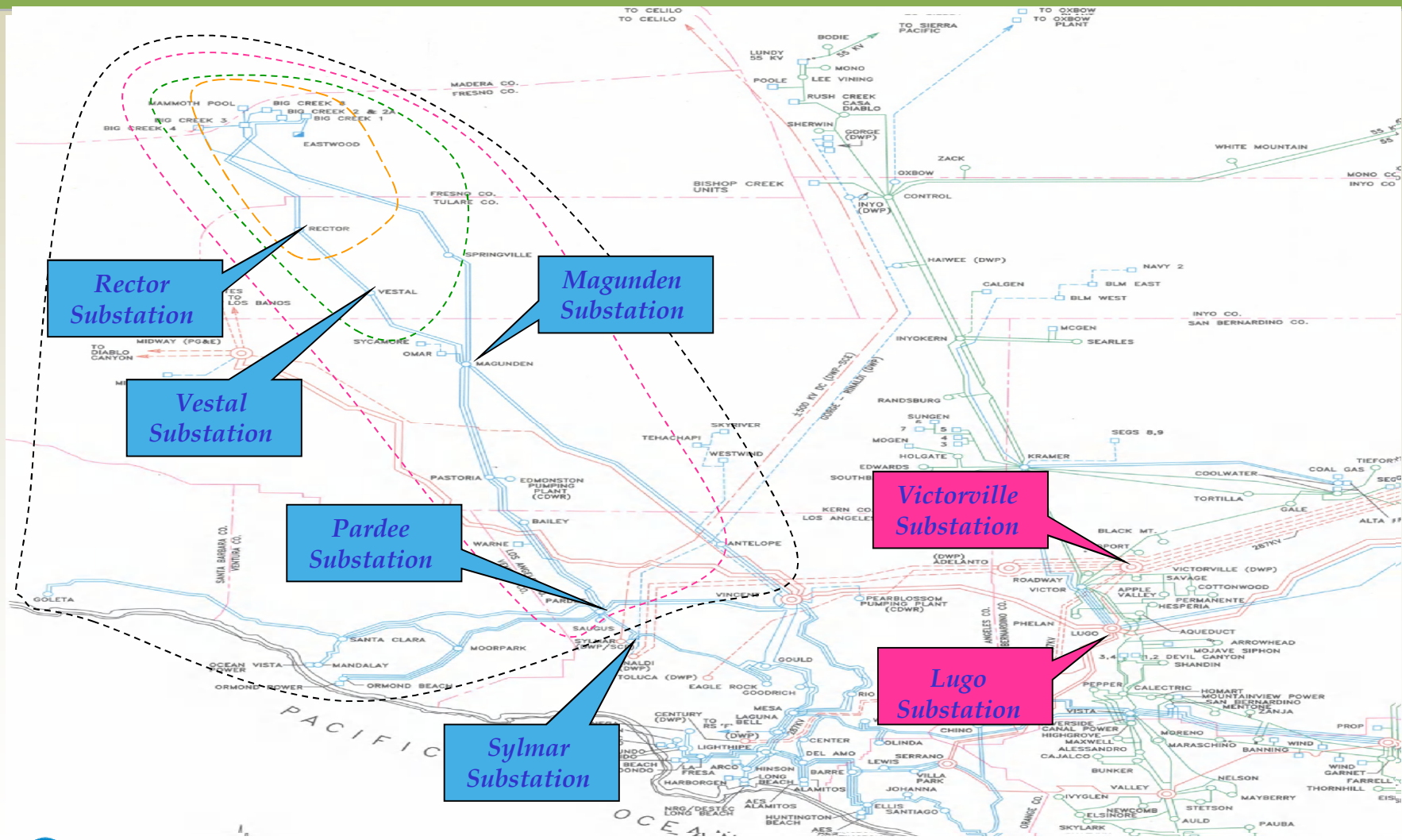
Yi Zhang

Regional Transmission Engineer

Stakeholder Meeting

March 10, 2010

Big Creek/Ventura Area



Big Creek/Ventura Area 2011 Loads & Resources

Load

Load (MW)	Pump Load (MW)	Transmission Losses (MW)	Total (MW)
4295	263	90	4648

Available Generation

	QF/Wind (MW)	Muni (MW)	Nuclear (MW)	Market (MW)	Max. Qualifying Capacity (MW)
Available Gen	1086	21	0	4146	5253

Rector and Vestal Sub-areas

Rector:

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

Limiting component: thermal overload the remaining Vestal-Rector #1 or #2 230 kV line

LCR Need: 641 MW (includes 26 MW of QF/Wind generation)

Vestal:

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

Limiting components: thermal overload the remaining Magunden-Vestal #1 or #2 230 kV line

LCR Need: 854 MW (includes 190 MW of QF/Wind generation)

All resources in Rector apply towards the LCR need in Vestal sub-area.

Santa Clara and Moorpark Sub-areas

Santa Clara:

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

Limiting component: Voltage collapse

LCR Need: 346 MW (includes 158 MW of QF/Wind generation)

Moorpark:

Contingency: Pardee – Moorpark 230 kV N-3

Limiting components: Voltage collapse

LCR Need: 606 MW (includes 158 MW of QF/Wind generation)

All resources in Santa Clara apply towards the LCR need in Moorpark sub-area.

Big Creek/Ventura Overall

Category B LCR:

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

Limiting component: thermal overload the remaining Sylmar-Pardee #1 or #2 230 kV line

LCR Need: 2786 MW (includes 1000 MW of QF, 21 MW of Muni and 86 MW of wind generation)

Category C LCR:

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

Limiting components: thermal overload the remaining Sylmar-Pardee #1 or #2 230 kV line

LCR Need: 2727 MW (includes 1000 MW of QF, 21 MW of Muni and 86 MW of wind generation)

Changes

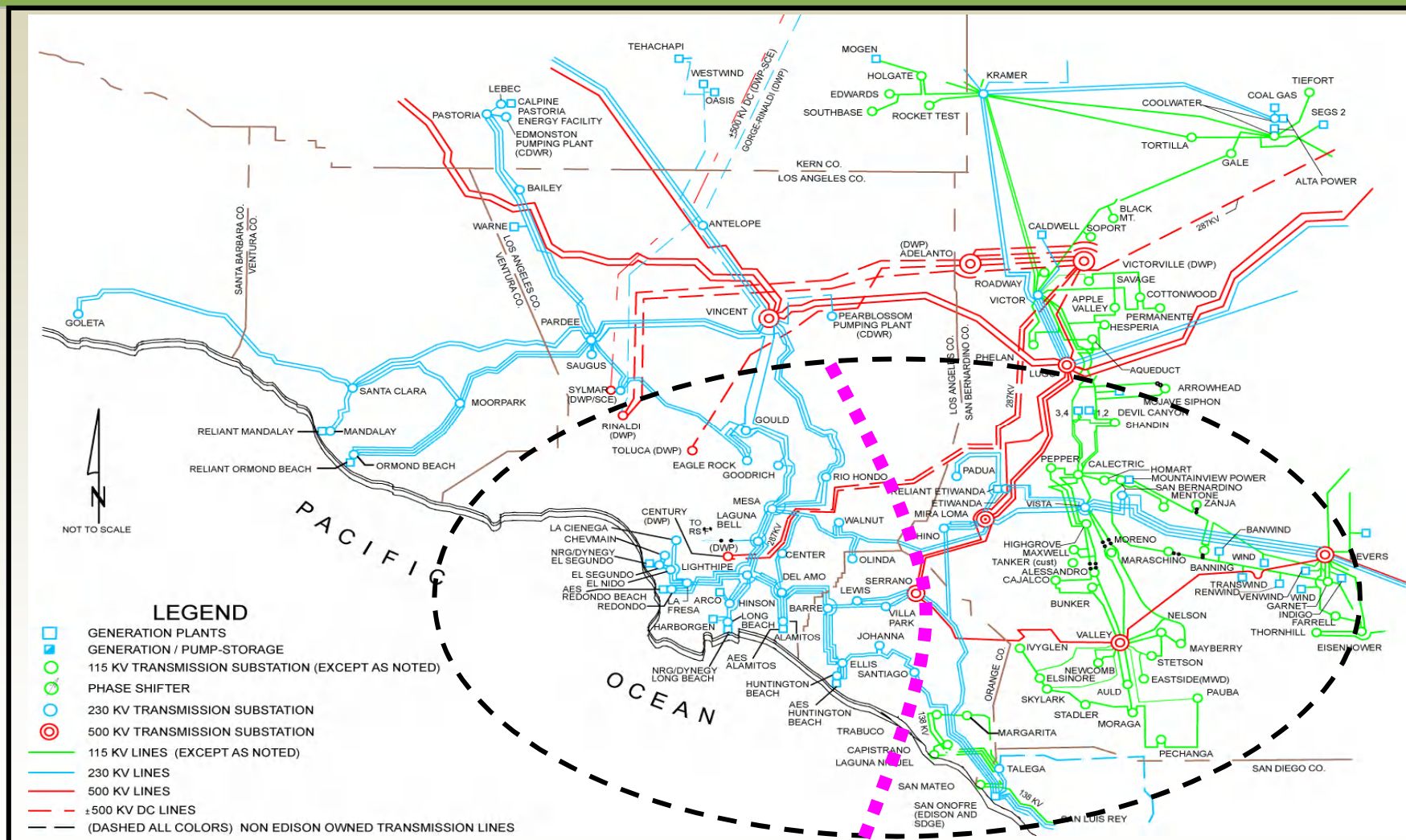
Since last year:

- 1) Load forecast is down by 439 MW
- 2) 7 small resource modeled in the area
- 3) Overall LCR has decreased by 607 MW

Your comments and questions are welcome.

For written comments, please send to: RegionalTransmission@caiso.com

LA Basin Area



LA Basin Area 2011 Loads & Resources

Load

Load (MW)	Pump Load (MW)	Transmission Losses (MW)	Total (MW)
19715	22	486	20223

Available Generation

	QF/Wind (MW)	Muni (MW)	Nuclear (MW)	Market (MW)	Max. Qualifying Capacity (MW)
Available Gen	1375	793	2246	8563	12977

Barre-Ellis Sub-area

Category C LCR:

Contingency: The loss of the Barre-Ellis 230 kV line followed by the loss of Santiago-S.Onofre #1 and #2 230 kV lines with SPS of load shedding at Santiago

Limiting components: Voltage collapse

LCR Need: 492 MW (includes 20 MW of QF)

El Nido–La Fresa Sub-area

Category C LCR:

Contingency: Two contingencies cause the same LCR need

1. The loss of the La Fresa – Redondo #1 and #2 230 kV lines

Limiting components: overload the La Fresa – Hinson 230 kV line

2. The loss of the La Fresa – Hinson 230 kV line followed by the loss of the La Fresa – Redondo #1 and #2 230 kV lines

Limiting components: Voltage collapse

LCR Need: 510 MW (includes 175 MW of QF)

Western LA Basin Sub-area

Category C LCR:

Contingency: The loss of the Serrano – Villa Park #1 or #2 and Serrano – Lewis 230 kV lines

Limiting components: Thermal overload of the remaining Serrano – Villa Park #1 or #2 230 kV line

LCR Need: 5828 MW (includes 892 MW of QF/Wind, 388 MW of Muni and 2246 MW of nuclear generation)

LA Basin Overall

Category B LCR:

Contingency: Palo Verde-Devers 500 kV line with SONGS #3 unit out of service

Limiting Component: South of Lugo operating rating (6400 MW with Rancho Vista 500kV substation)

LCR Need: 10589 MW (includes 1309 MW of QF, 66 MW Wind, 793 MW of Muni and 2246 MW of nuclear generation)

Changes

Since last year:

- 1) Load forecast is up by 198 MW
- 2) 17 small resources have been modeled
- 3) Add Barre-Ellis sub-area and El Nido-La Fresa sub-area
- 4) As a part of TRTP project the existing Antelope-Mesa Cal 230 kV line will be out-of-service in 2011, but new line will not be ready, which cause the LCR needs in Western LA and LA increase.
- 5) Overall LCR increases by 854 MW

Your comments and questions are welcome.

For written comments, please send to: RegionalTransmission@caiso.com