



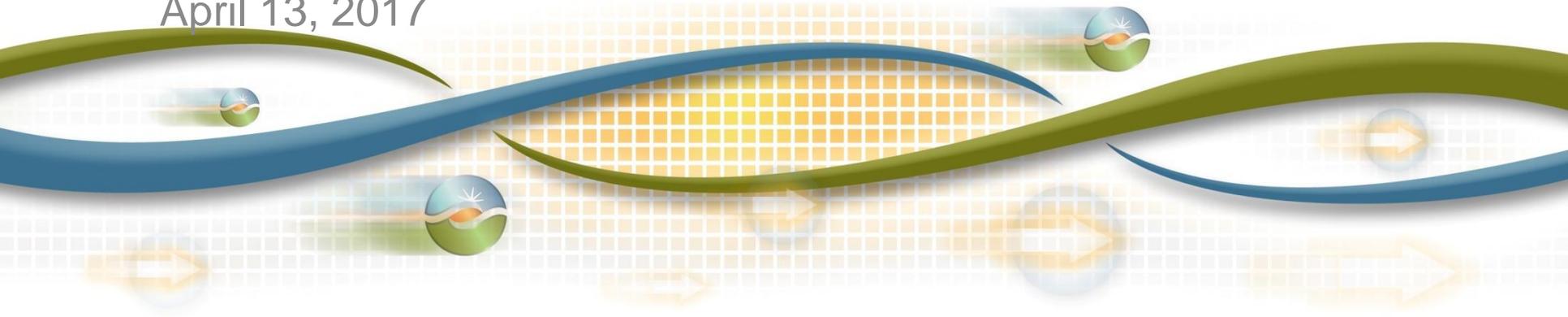
2018 & 22 Final LCR Study Results Kern Area

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Stakeholder Call

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Kern LCR Area



Kern Load and Resources (MW)

Kern Area	2018	2022
Load	907	950
AAEE	-13	-27
BTM DG	-34	-44
Transmission Losses	7	6
Total Load	867	885
Market Generation/Net Seller	551	551
Muni Generation	0	0
QF/Self Generation	15	15
Total Qualifying Capacity	566	566

Kern Area LCR

West Park Sub-Area

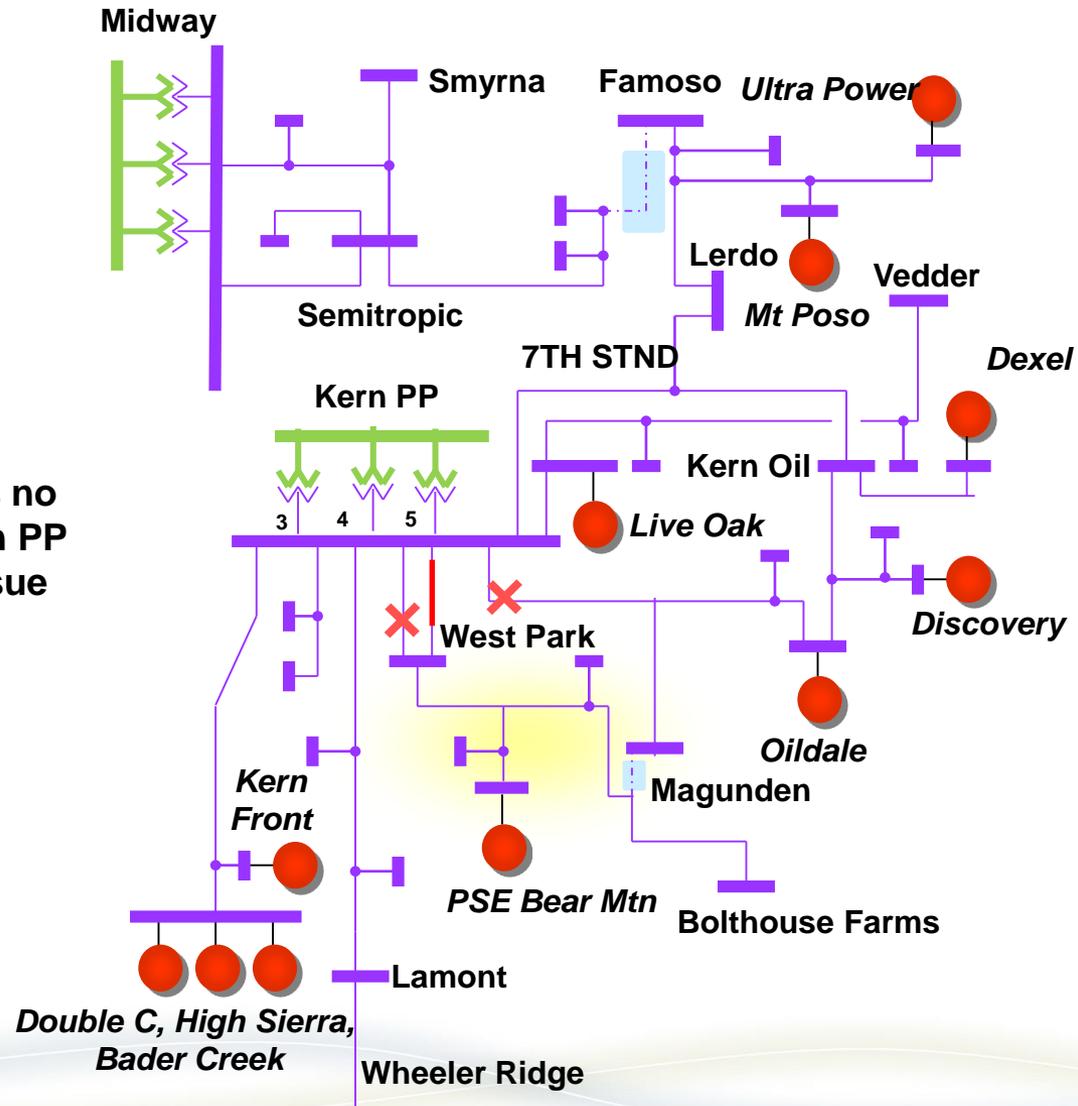
Category B:

- No Category B requirement

Category C:

- No Category C requirement

West Park sub-area may be eliminated as no overloads seen in the 2018 analysis. Kern PP 115 kV reinforcement project fixes the issue for future years.



Kern Area LCR

Kern Oil Sub-Area

Limiting Contingencies:

Category C (NERC Cat. P6):

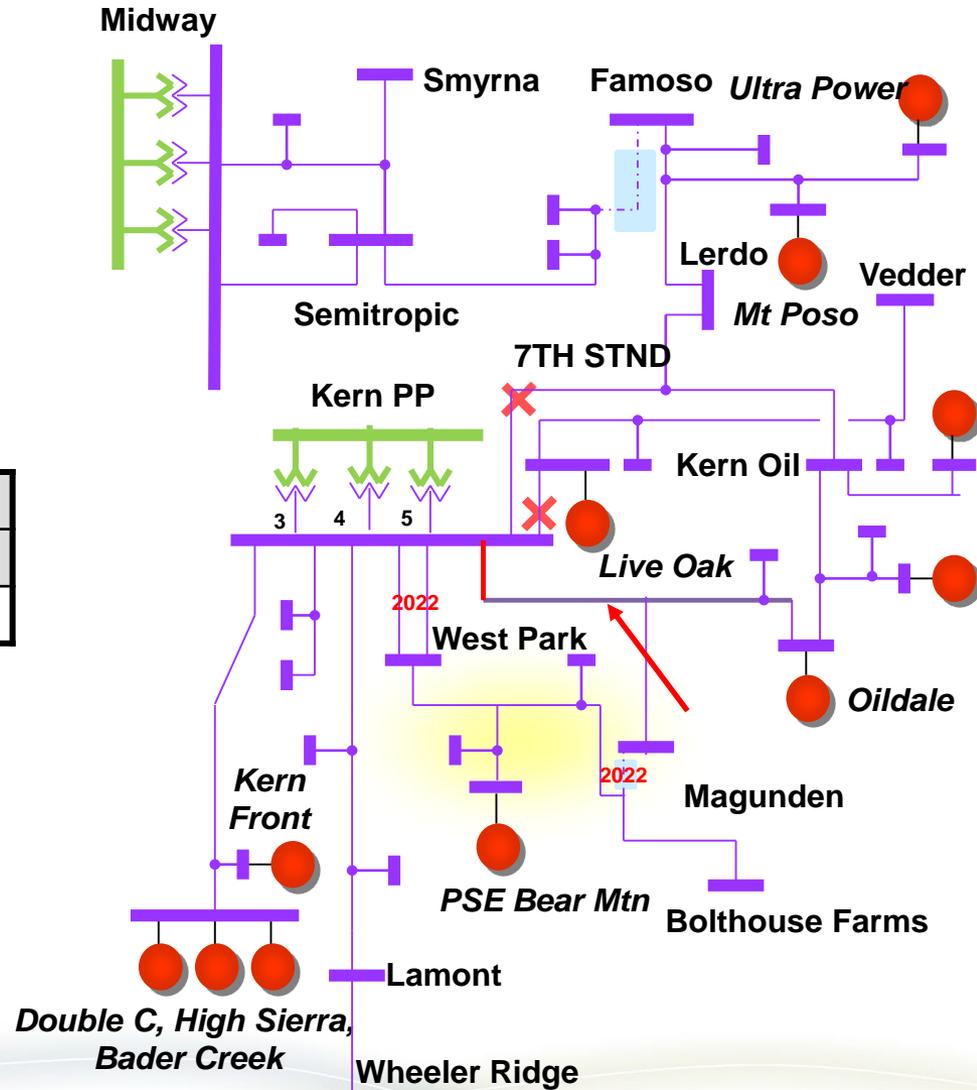
- L-1/L-1: Kern PP-Live Oak 115 kV Line & Kern PP-7th Standard 115 kV lines

Constraint: Kern PP-Magunden-Witco 115 kV Line (Kern PP-Kern Water section)

LCR Results (MW):

Contingency	2018		2022	
	Cat. B	Cat. C	Cat. B	Cat. C
LCR	NA	133	NA	49

Requirement goes down in 2022 due to Kern PP 115 kV area Reinforcement project & Closing of Magunden NO 162 switch modeled in the 2022 case.



Kern Area LCR

Kern Oil Sub-Area

Limiting Contingencies:

Category C (NERC Cat. P6):

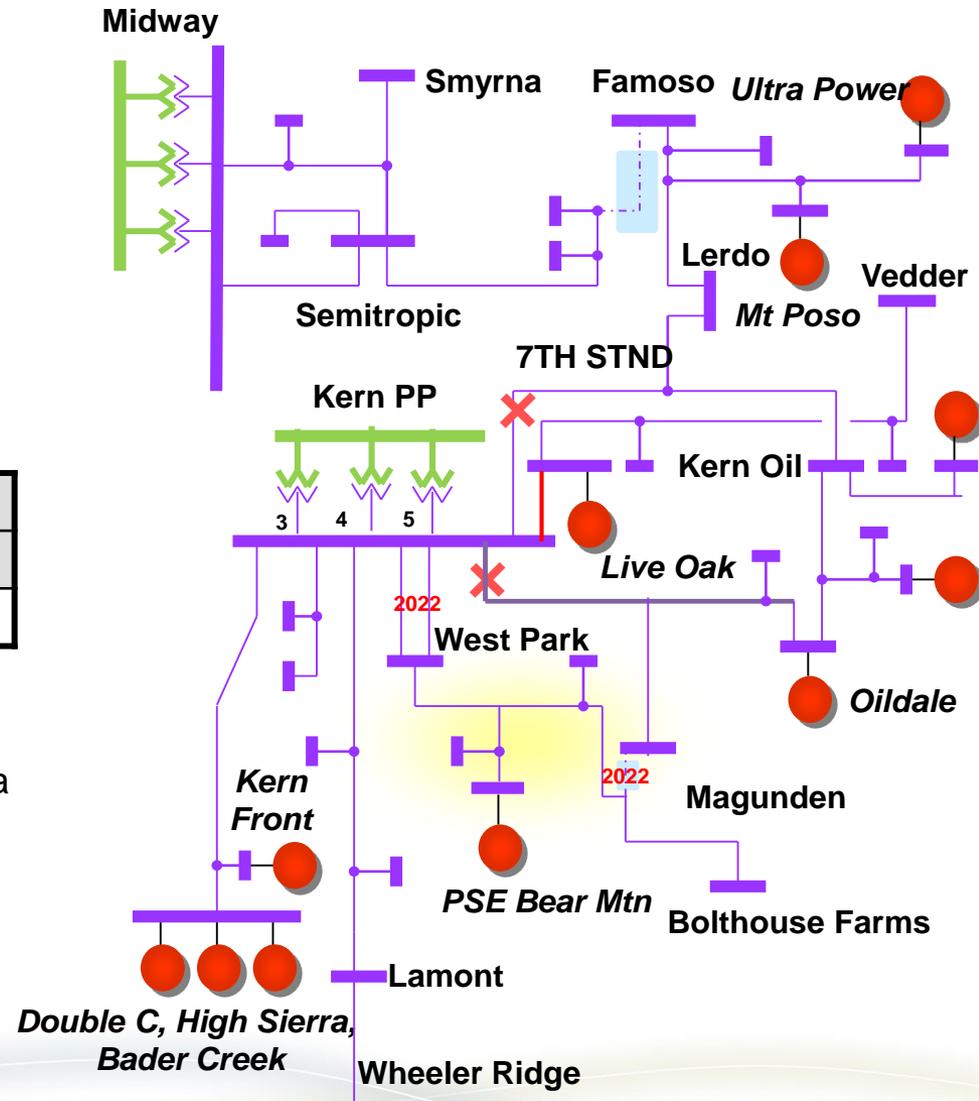
- L-1/L-1: Kern PP-Magunden-Witco 115 kV Line & Kern PP-7th Standard 115 kV lines

Constraint: Kern PP-Live Oak 115 kV Line

LCR Results (MW):

Contingency	2018		2022	
	Cat. B	Cat. C	Cat. B	Cat. C
LCR	NA	117	NA	123

2022 Category C number used for overall Kern Area requirements.



Kern Area LCR

South Kern PP Sub-Area

Limiting Contingencies:

Category C:

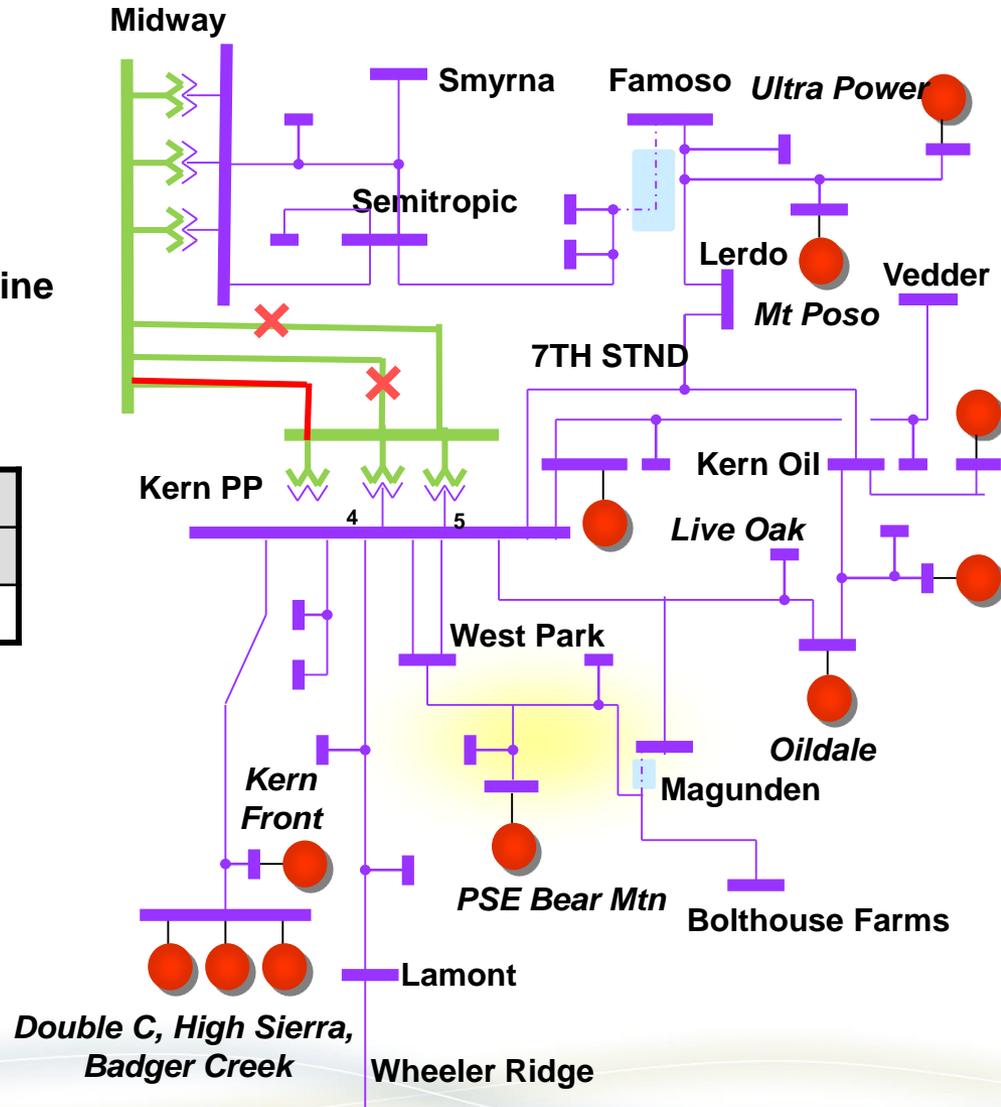
- Midway-Kern PP # 3 & # 4 230 kV lines

Constraint: Midway-Kern PP 230 kV # 1 230 kV line

LCR Results (MW):

Contingency	2018		2022	
	Cat. B	Cat. C	Cat. B	Cat. C
LCR	NA	453	NA	NA

This Requirement goes away in 2022 due to Midway-Kern PP 230 kV line capacity increase project. Kern Oil Subarea 2022 Category C requirement drives overall Kern requirement.



2018-22 Kern Area Overall Summary

2018 Limiting Contingencies:

Category C:

- Midway-Kern PP # 3 & # 4 230 kV lines
- Constraint: Midway-Kern PP 230 kV # 1 230 kV line

2022 Limiting Contingencies:

Category C:

- L-1/L-1: Kern PP-Magunden-Witco 115 kV Line & Kern PP-7th Standard 115 kV lines
- Constraint: Kern PP-Live Oak 115 kV Line

	2018		2022	
Contingency	Cat. B	Cat. C	Cat. B	Cat. C
LCR	NA	453	NA	123

Changes

Since last year:

- 1) Westpark sub-area has been eliminated due to reduction in overall Kern Area load.
- 2) 2018 area load forecasts has decreased by 272 MW and the LCR has decreased by 39 MW vs. 2017.
- 3) 2022 area has been redefined as compared to 2021 and the LCR has increased by 18 MW.

Since last stakeholder meeting:

- 1) Updated NQC.
- 2) Recalculated load in the area.
- 3) Reduced single contingency needs due to higher ratings for the Kern 230/115 kV banks.

Your comments and questions are welcome.

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