2024 & 2028 Final LCR Study Results Kern Area

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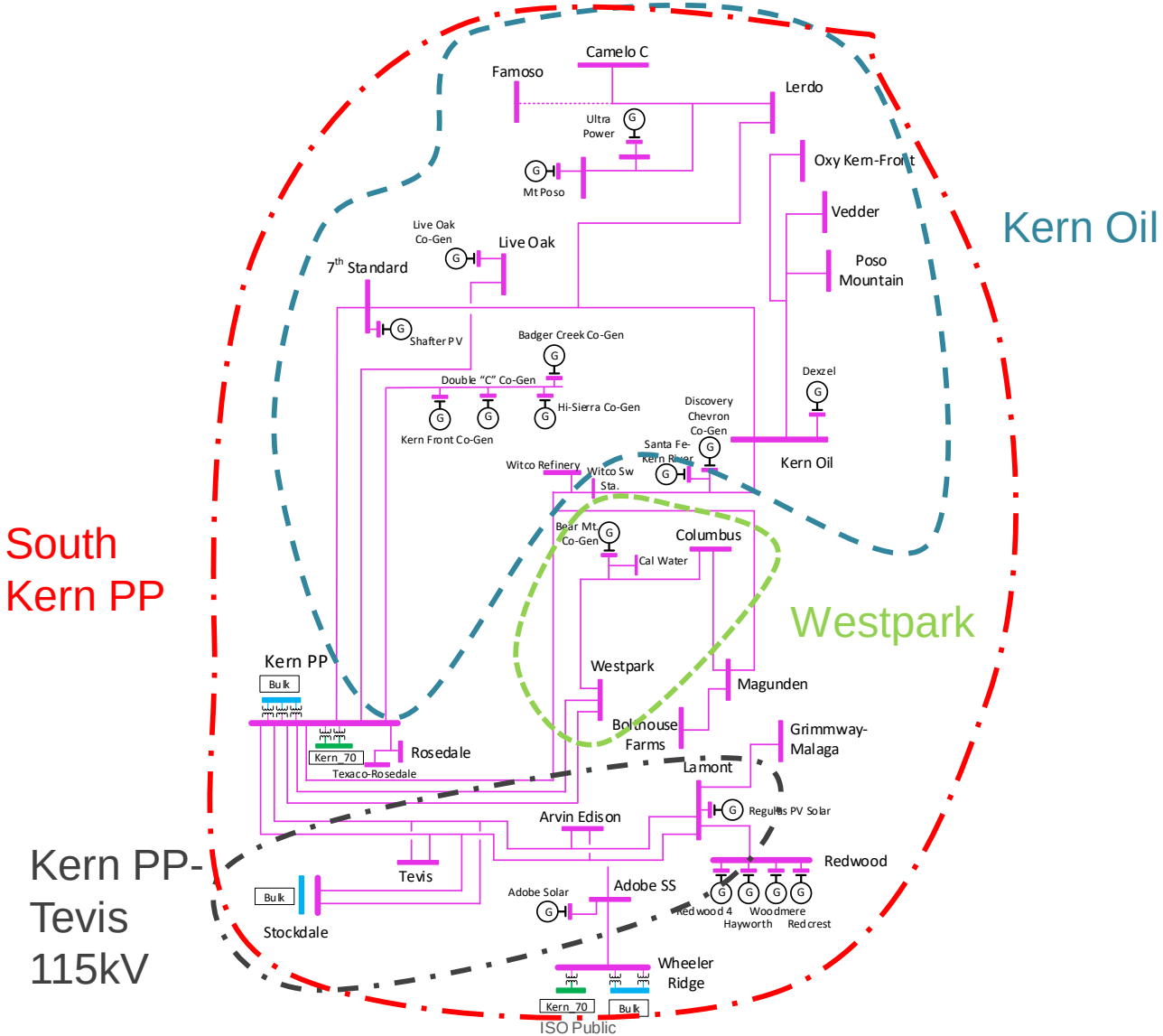
Stakeholder Call

April 12, 2023

Kern Area LCR Sub-Areas



Major new projects

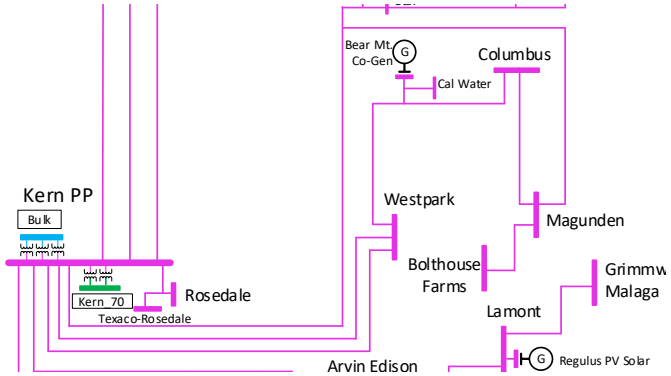
Project Name	Expected ISD
Midway-Temblor 115 kV Line Reconductor & Voltage Support	October-2027
Bakersfield Nos. 1 and 2 230 kV Tap Lines Reconductoring	August-2027
Kern PP 115 kV Area Reinforcement	July- 2027
Wheeler ridge Junction Station Project	ON HOLD

Kern Area Overall: Load and Resources

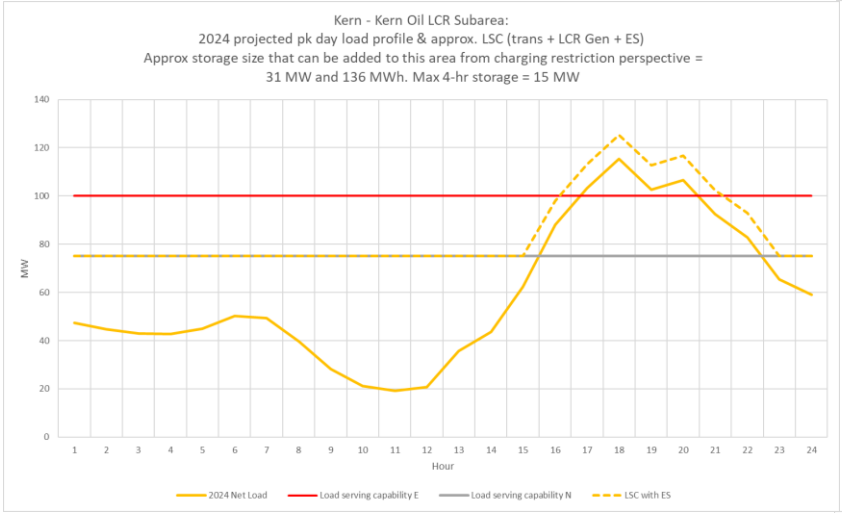
Load (MW)	2024	2028	Generation (MW)	2024	2028
Gross Load	923	967	Market/ Net Seller	365	365
AAEE	-7	-12	Battery	0	0
Behind the meter DG	0	0	MUNI/QF	10	10
Net Load	**914**	**955**	Solar	43	43
Transmission Losses	10	11	Existing 20 minute DR	9	9
Pumps	0	0	Mothballed	0	0
Load + Losses + Pumps	**924**	**966**	**Total Qualifying Capacity**	**427**	**427**

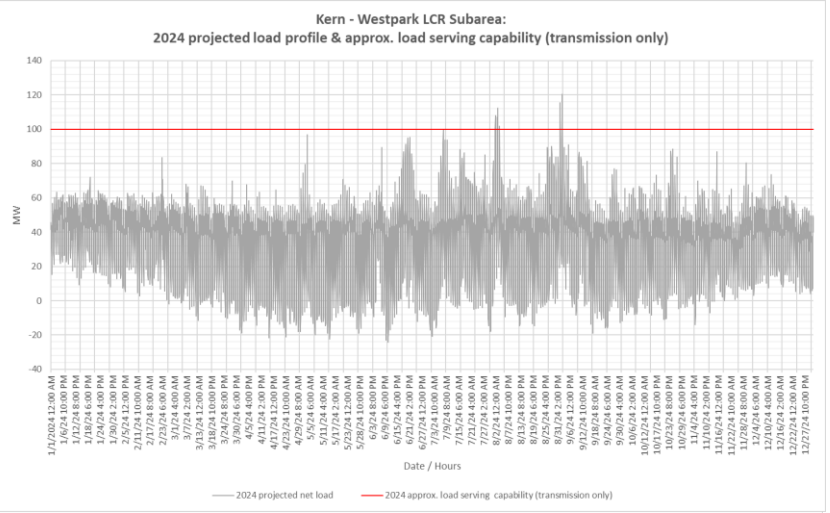
Kern Area LCR
Westpark Sub-Area

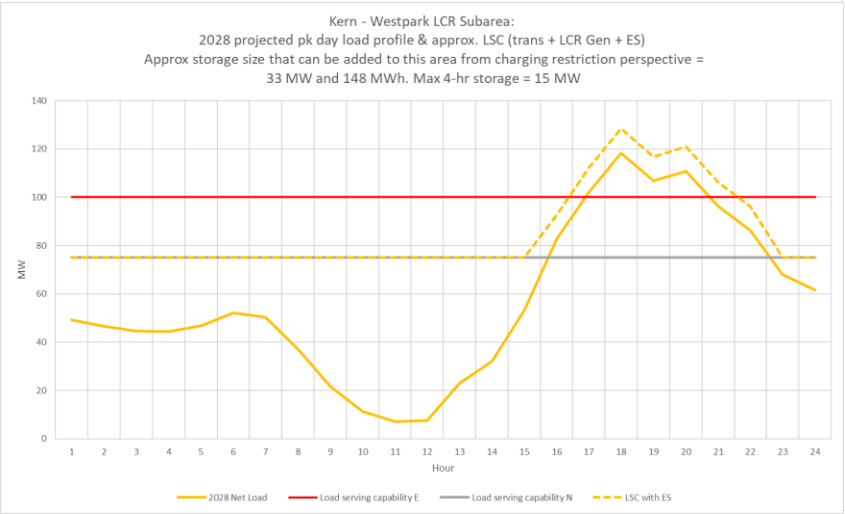
Year	Category	Limiting Facility	Contingency	LCR (MW) (Deficiency)
2024	P7	MAGUNDEN - MAGUDN J 115 kV line	Kern PP-Westpark No. 1 & 2 115 kV Lines	31
2028	P7	MAGUNDEN - MAGUDN J 115 kV line	Kern PP-Westpark No. 1 & 2 115 kV Lines	33

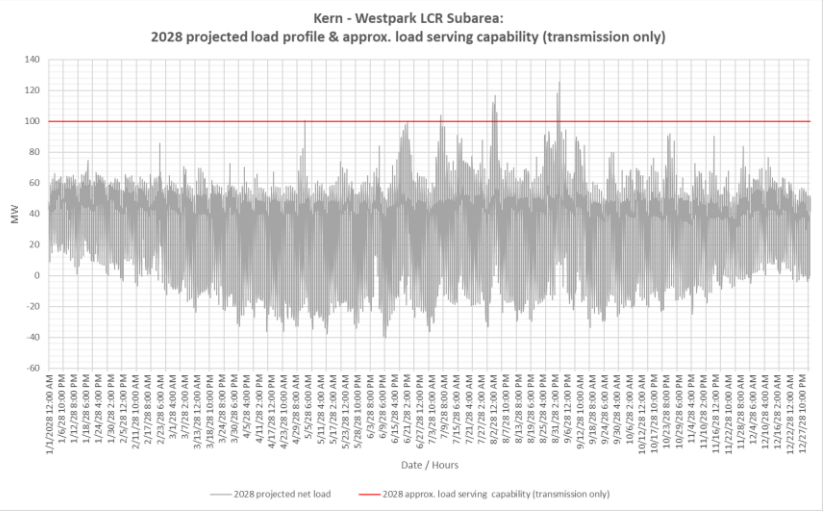


Westpark Sub-area: Load Profiles

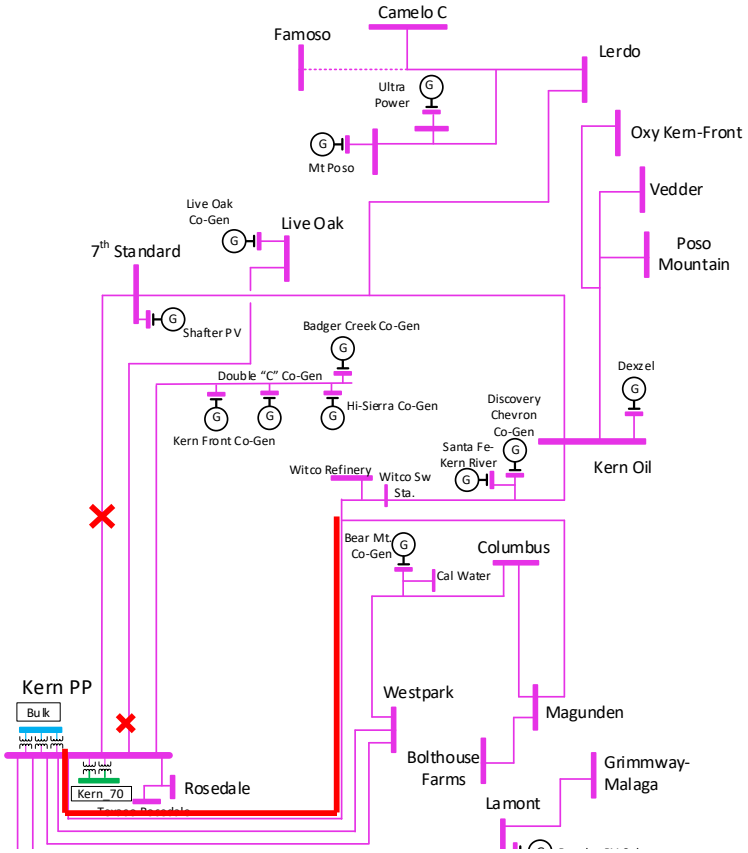








Kern Area LCR
Kern Oil Sub-Area

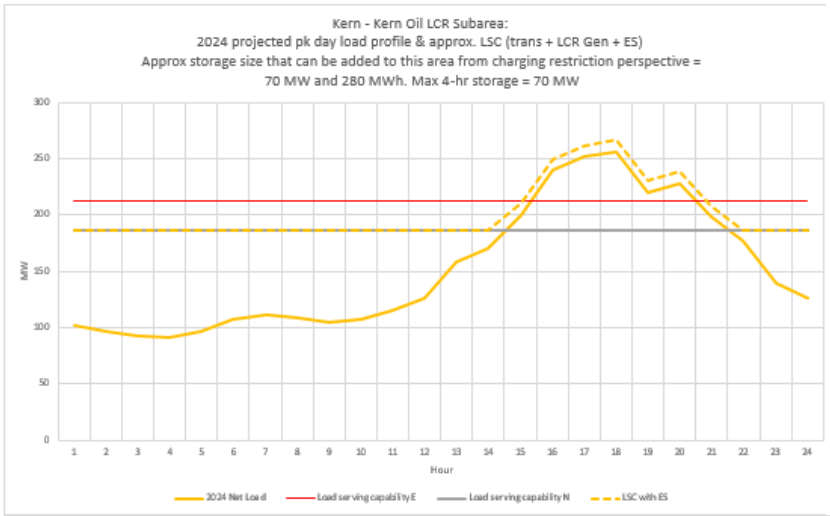


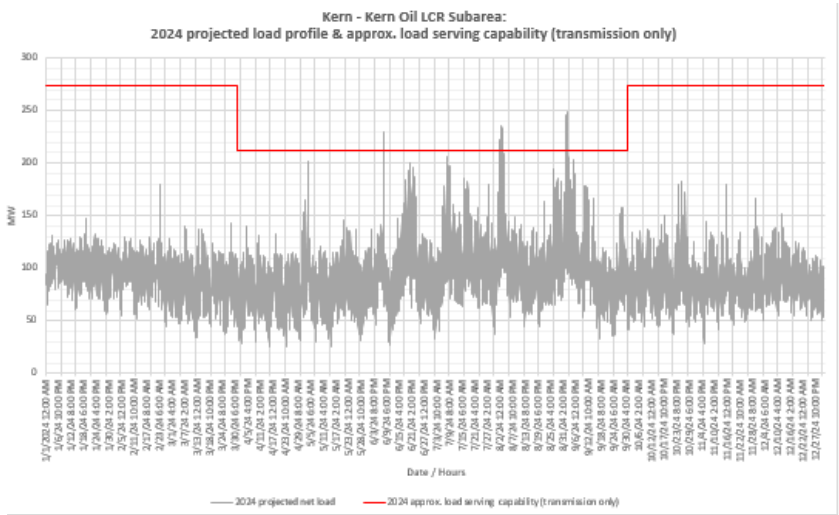
Kern Area LCR
Kern Oil Sub-Area

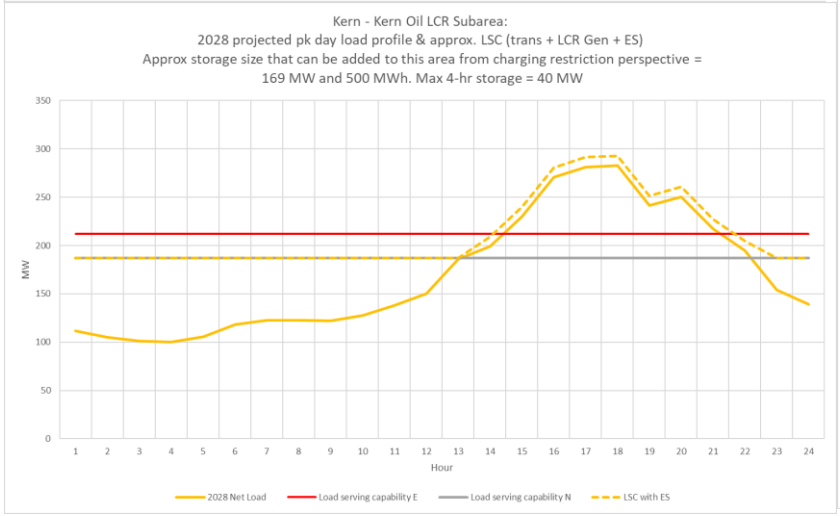
Year	Cat	Limiting Facility	Contingency	LCR (MW) (Deficiency)
2024	P6	Kern Oil - Kern Water 115 kV Line	Kern PP-7th Standard 115 kV lines & Kern PP-Live Oak 115 kV Line	127 (7 NQC) (10 Peak)

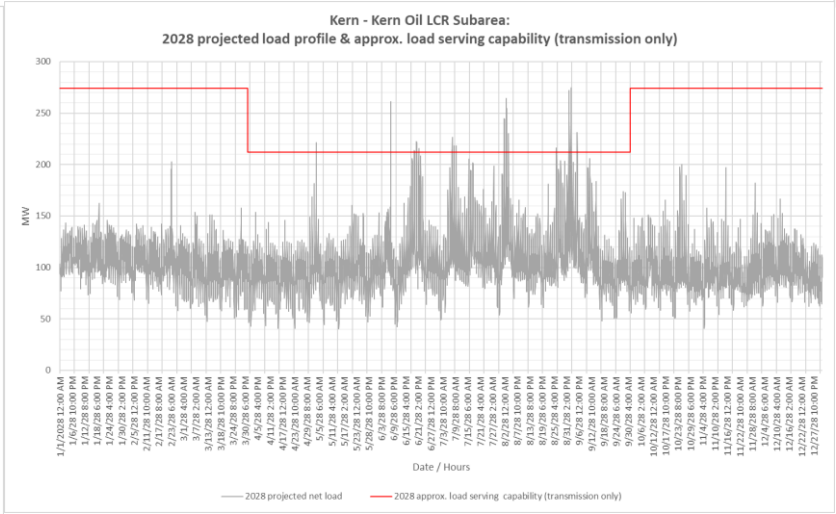
Year	Cat	Limiting Facility	Contingency	LCR (MW) (Deficiency)
2028	P6	Kern Oil - Kern Water 115 kV Line	Kern PP-7th Standard 115 kV lines & Kern PP-Live Oak 115 kV Line	169 (49 NQC) (52 Peak)

Kern Oil Sub-area: Load Profiles



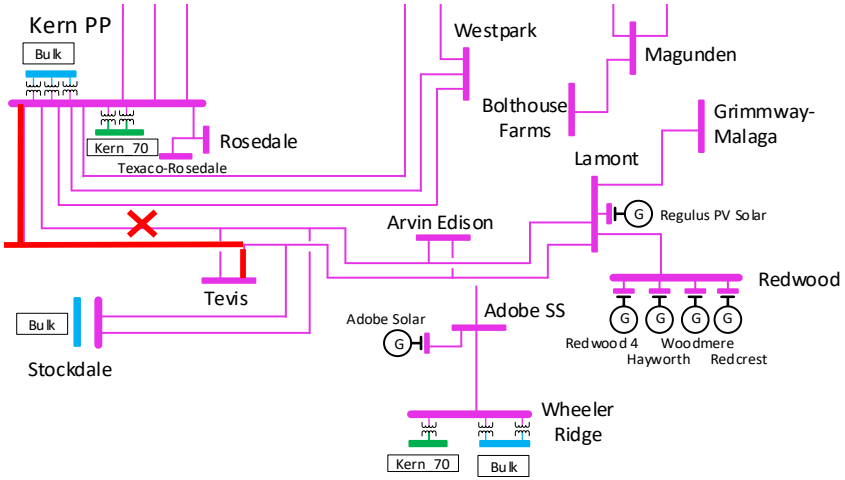






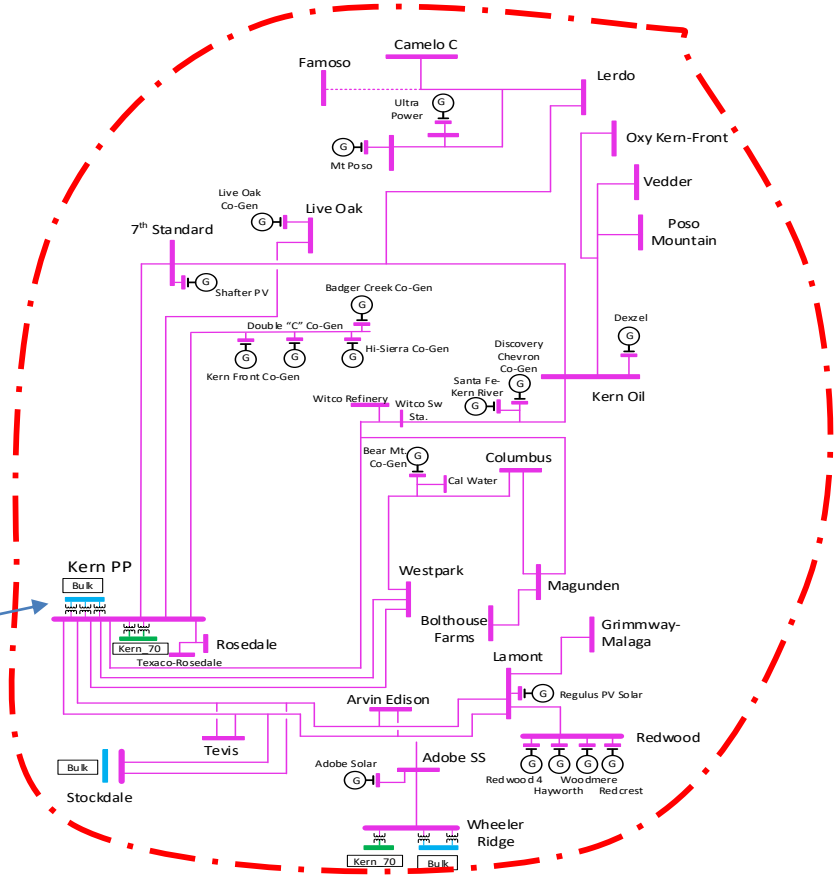
Kern Pwr-Tevis 115 kV Sub-Area : Requirements

Year	Category	Limiting Facility	Contingency	LCR (MW) (Deficiency)
2024	P1	Kern-Lamont 115 kV Lines (Kern-Tevis Jct 2)	STOCKDLE-LAMONT-KERN PWR-TEVIS 115KV	13 (13 Peak)
2028	P1	Kern-Lamont 115 kV Lines (Kern-Tevis Jct 2)	STOCKDLE-LAMONT-KERN PWR-TEVIS 115KV	18 (18 Peak)



Kern Area LCR
South Kern PP Sub-Area

South Kern PP

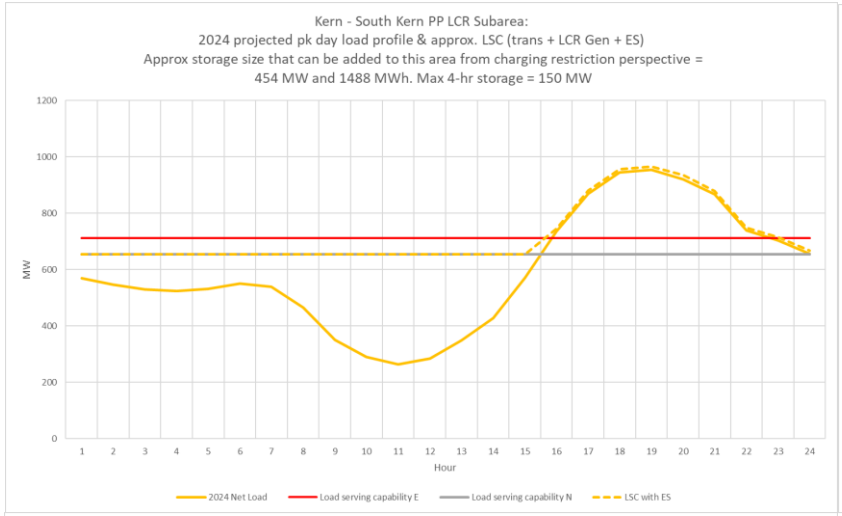


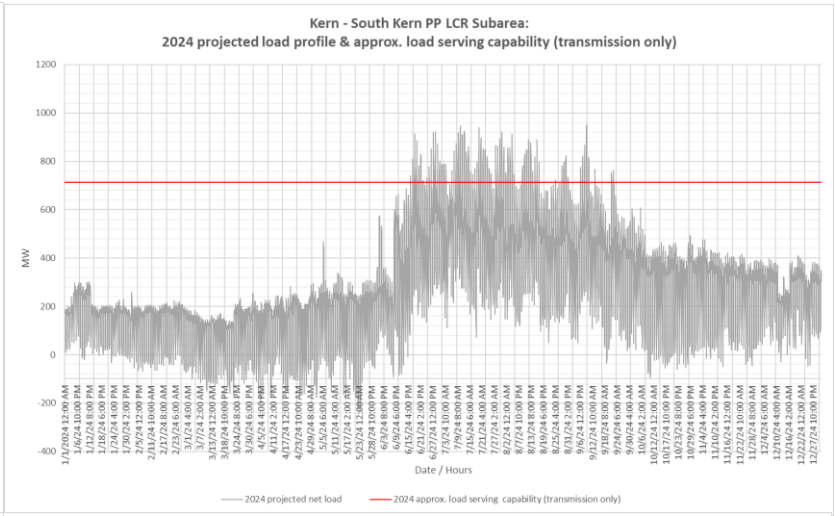
Kern Area LCR
South Kern PP Sub-Area

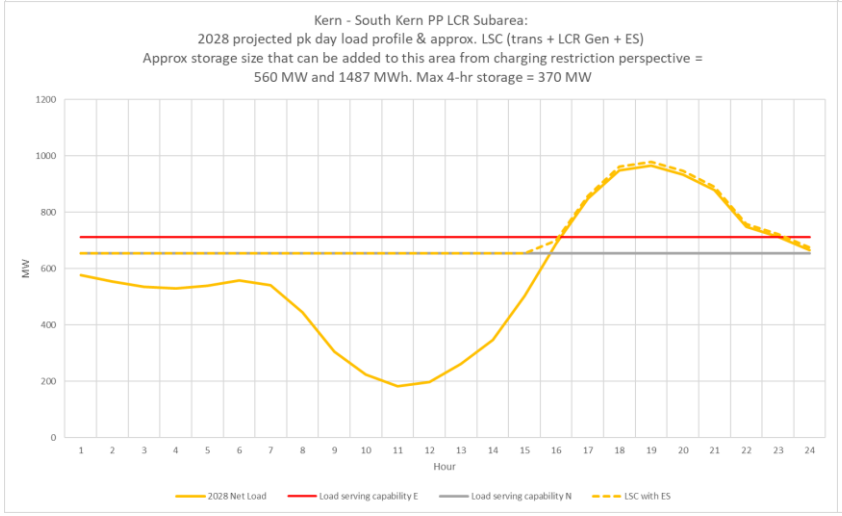
Year	Cat	Limiting Facility	Contingency	LCR (MW) (Deficiency)
2024	P6	Kern 230/115 kV T/F # 5	Kern 230/115 kV T/F # 3 & Kern 230/115 kV T/F # 4	454 (27 NQC) (70 Peak)

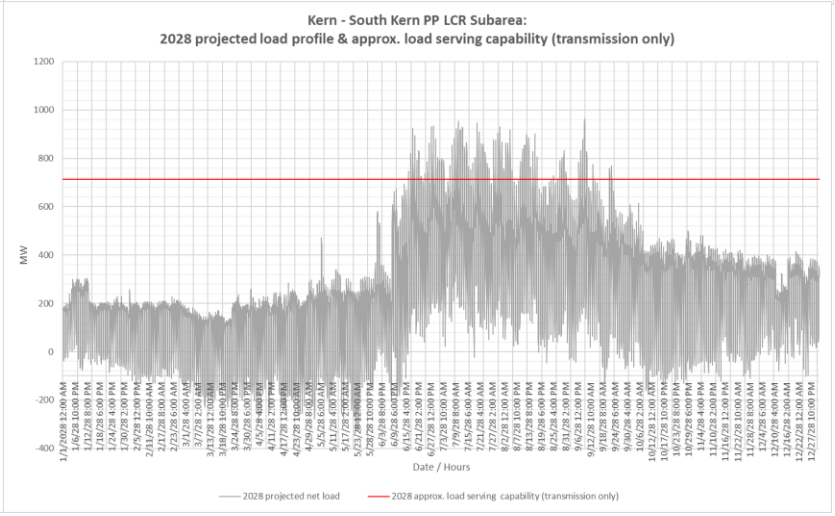
Year	Cat	Limiting Facility*	Contingency	LCR (MW) (Deficiency)
2028	P6	Kern 230/115 kV T/F # 5	Kern 230/115 kV T/F # 3 & Kern 230/115 kV T/F # 4	560 (133 NQC) (176 Peak)

South Kern PP Sub-area: Load Profiles









Kern Total LCR Need

2024 LCR Need	Existing Generation Capacity Needed (MW)	NQC Deficiency (MW)	Total MW Need
Category P7	427	27	454

2028 LCR Need	Existing Generation Capacity Needed (MW)	NQC Deficiency (MW)	Total MW Need
Category P7	427	133	560

Changes Compared to Previous LCR Requirements

Sub-area	2023		2024		2027		2028	
	Net Load	LCR	Net Load	LCR	Net Load	LCR	Net Load	LCR
Westpark	126	10	115	31	125	10	118	33
Kern Oil	269	60	258	127 (10 Peak 7 NQC)	285	70	282	169 (52 Peak 49 NQC)
KernPP-Tevis 115 kV	149	0	136	13 (13 Peak 0 NQC)	150	0	141	18 (18 Peak 0 NQC)
South Kern	932	443 (77 Peak 4 NQC)	925	454 (70 Peak 27 NQC)	937	320	966	560 (176 Peak 133 NQC)
Kern Overall	932	443 (77 Peak 4 NQC)	925	454 (70 Peak 27 NQC)	937	320	966	560 (176 Peak 133 NQC)

For 2024 the load forecast has decreased slightly and the overall Kern requirements have decreased as well mostly due to decrease in NQC values, resulting in an increase of “deficiency values”.

For 2028 the load forecast has increased and the overall Kern requirements have increased as well mostly due to load increase and change in limiting constraint.