



2026 & 2030 Draft LCR Study Results Sierra Area

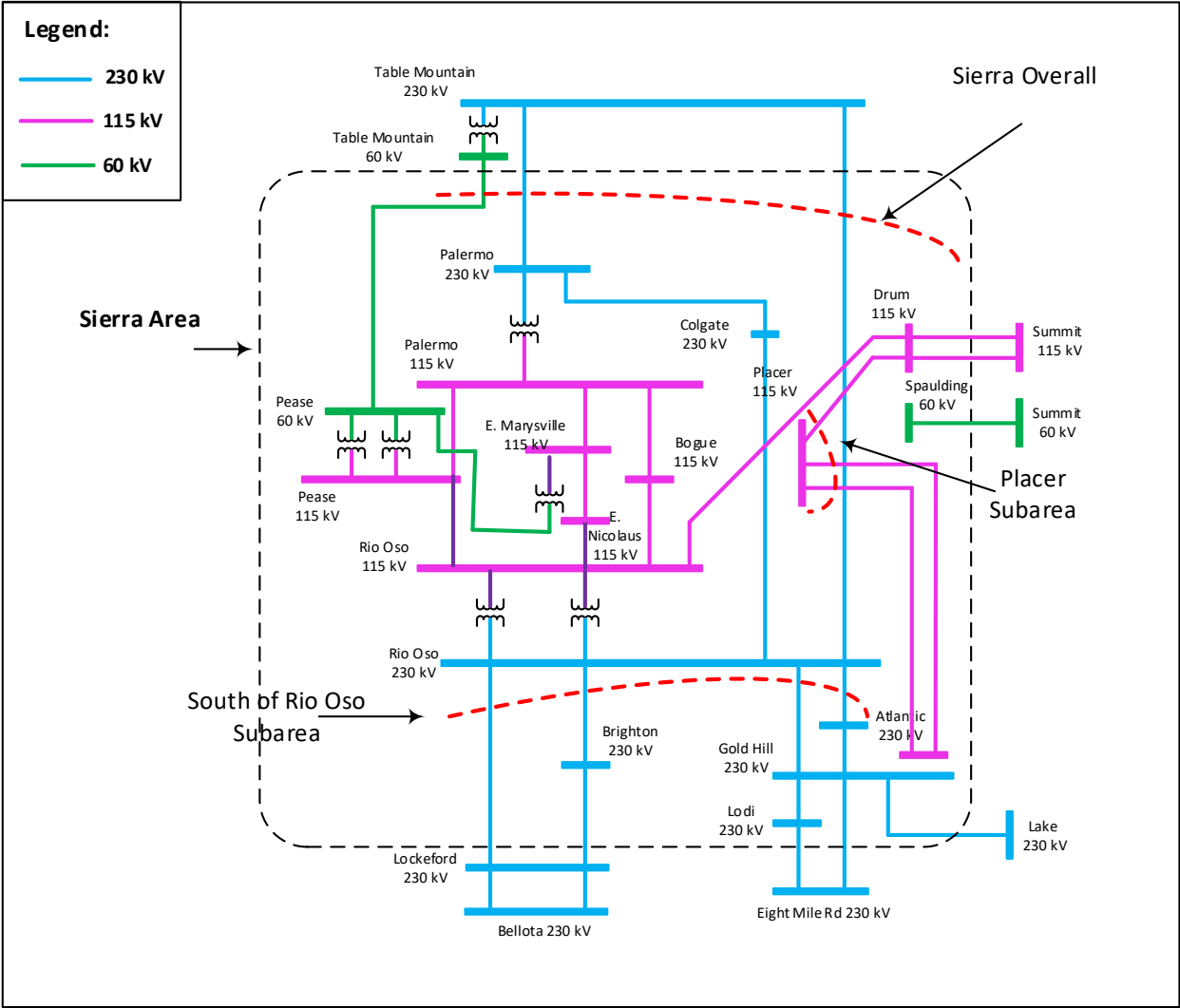
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Sr. Regional Transmission Engineer

Stakeholder Call

March 6, 2025

Sierra Area Transmission System & LCR Sub-areas



New major transmission projects

Project Name	Expected ISD
Rio Oso 230/115 kV Transformer Upgrades	May 2025
Rio Oso Area 230 kV Voltage Support	May 2026
East Marysville 115/60 kV	Jan 2028
Gold Hill 230/115 kV Transformer Addition	June 2029
Reconductor Rio Oso–SPI Jct–Lincoln 115 kV line	Dec 2028
Atlantic 230/60 kV transformer voltage regulator	Apr 2027
Atlantic High Voltage Mitigation	Apr 2027

Sierra Area Overall: Load and Resources

Load (MW)	2026	Generation (MW)	Aug NQC	At Peak
Gross Load	1844	Market/Net Seller	702	702
AAEE	-25	Battery	5	5
Behind the meter DG	-40	MUNI/QF	1236	1236
Net Load	1779	Solar	0	0
Transmission Losses	74	Existing 20-minute Demand Response	0	0
Pumps	0	Mothballed	0	0
Load + Losses + Pumps	1853	Total	1943	1943

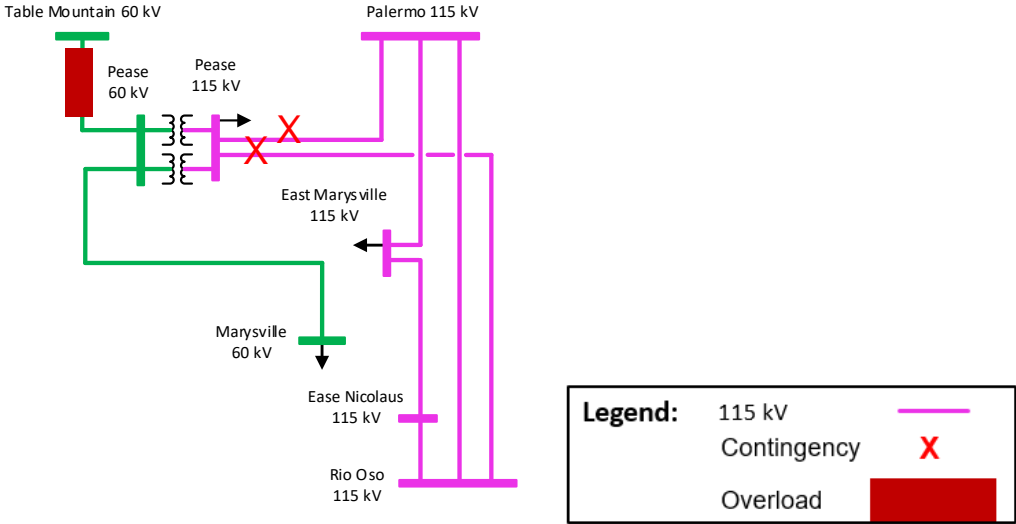
Sierra Area Overall: Load and Resources

Load (MW)	2030	Generation (MW)	Aug NQC	At Peak
Gross Load	2003	Market/Net Seller	702	702
AAEE	-42	Battery	5	5
Behind the meter DG	-50	MUNI/QF	1236	1236
Net Load	1911	Solar	0	0
Transmission Losses	70	Existing 20-minute Demand Response	0	0
Pumps	0	Mothballed	0	0
Load + Losses + Pumps	1981	Total	1943	1943

Pease Sub-Area: Load and Resources

Load (MW)	2026	Generation (MW)	Aug NQC	At Peak
Gross Load	160	Market/Net Seller	97	97
AAEE	-2	Battery	5	5
Behind the meter DG	-3	MUNI/QF	49	49
Net Load	155	Solar	0	0
Transmission Losses	3	Existing 20-minute Demand Response	0	0
Pumps	0	Mothballed	0	0
Load + Losses + Pumps	158	Total	151	151

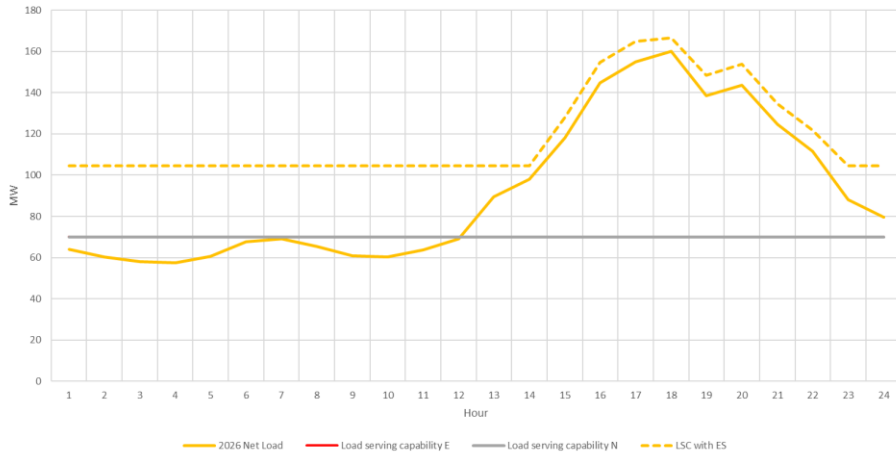
Pease Sub-Area: Requirements



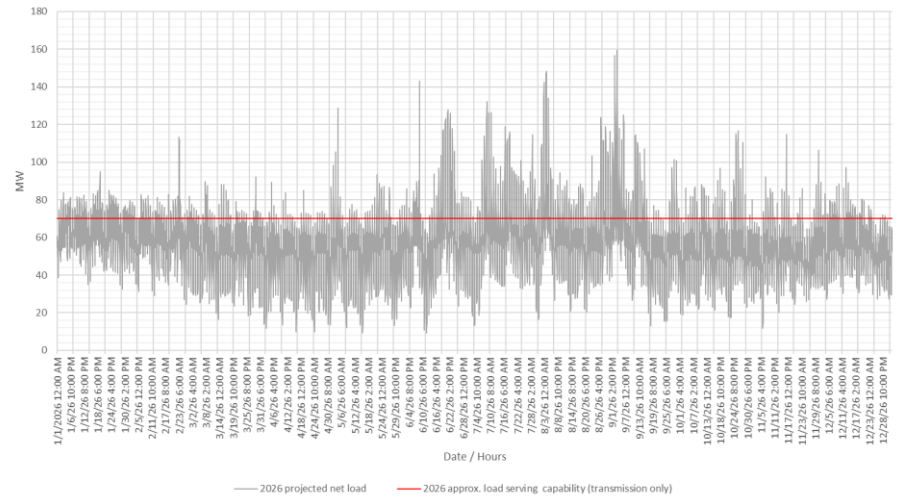
Year	Category	Limiting Facility	Contingency	LCR (MW) (Deficiency)
2026	P6, P7	Table Mountain – Pease 60 kV line	Palermo – Pease 115 kV and Pease – Rio Oso 115 kV	53
2030	No LCR due to implementation of East Marysville 115/60 kV Project Implementation			N/A

Pease Sub-area: Load Profiles

Sierra - Pease LCR Subarea:
 2026 projected pk day load profile & approx. LSC (trans + LCR Gen + ES)
 Approx storage size that can be added to this area from charging restriction perspective =
 52 MW and 337 MWh. Max 4-hr storage = 30 MW



Sierra - Pease LCR Subarea:
 2026 projected load profile & approx. load serving capability (transmission only)



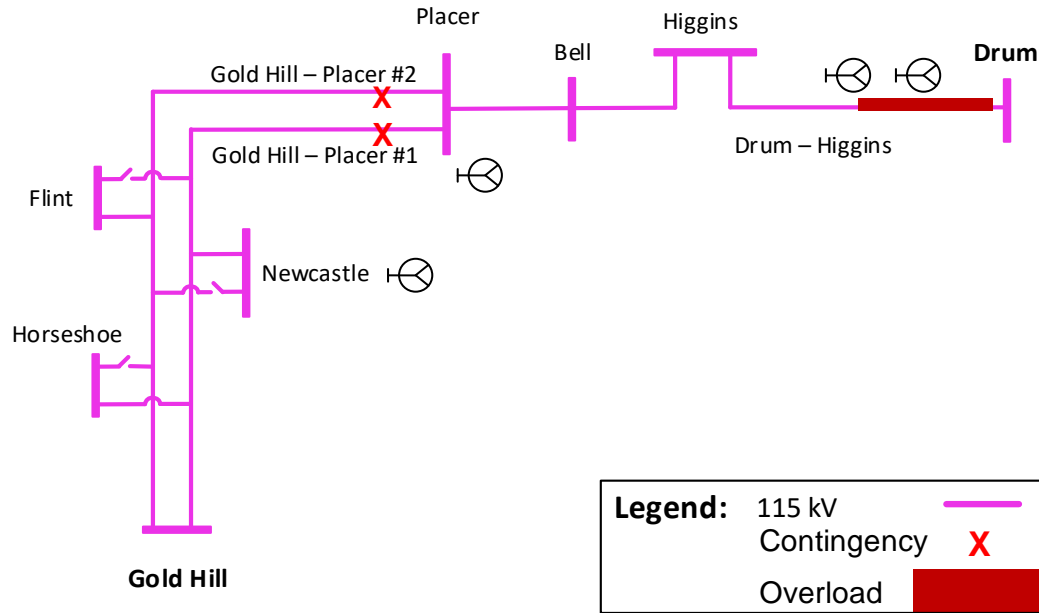
Placer Sub-Area: Load and Resources

Load (MW)	2026	Generation (MW)	Aug NQC	At Peak
Gross Load	210	Market/Net Seller	34	34
AAEE	-3	Battery	0	0
Behind the meter DG	-5	MUNI/QF	28	28
Net Load	202	Solar	0	0
Transmission Losses	4	Existing 20-minute Demand Response	0	0
Pumps	0	Mothballed	0	0
Load + Losses + Pumps	206	Total	62	62

Placer Sub-Area: Load and Resources

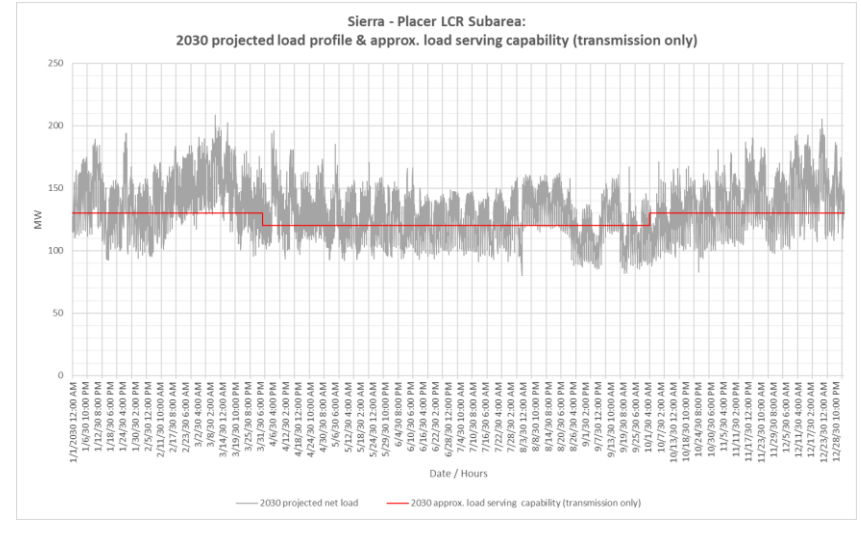
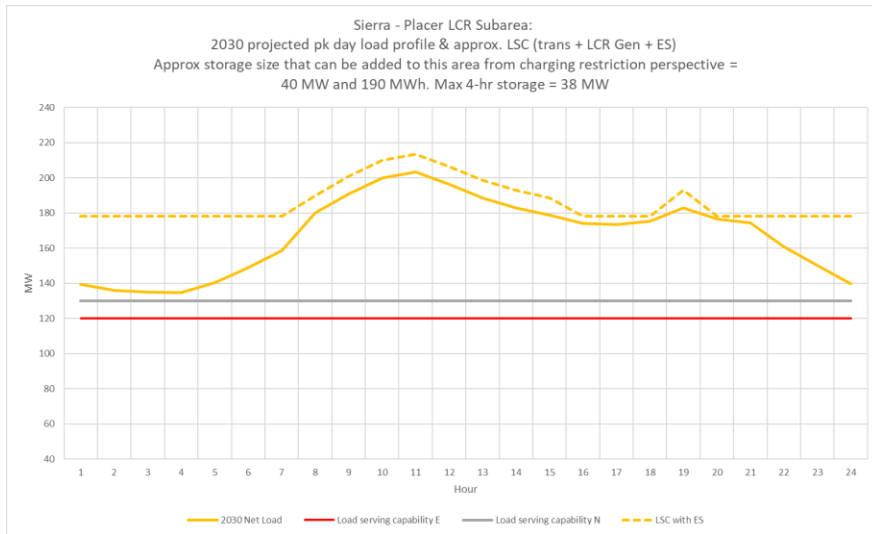
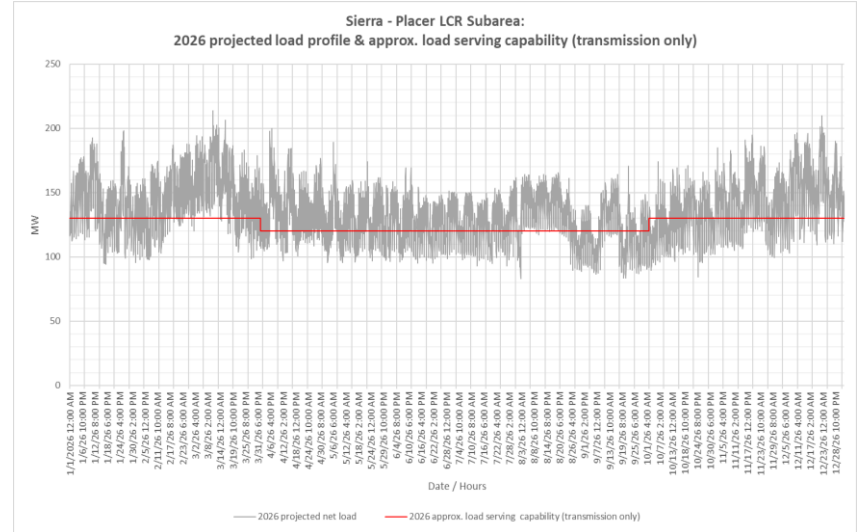
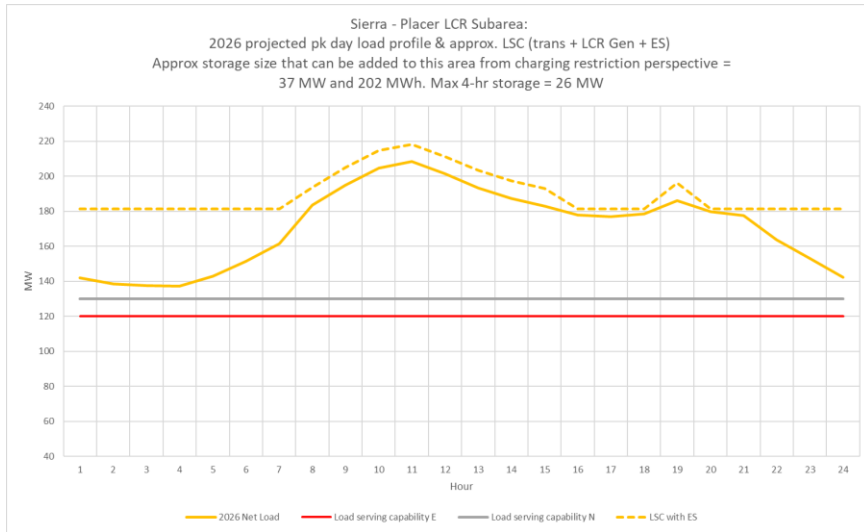
Load (MW)	2030	Generation (MW)	Aug NQC	At Peak
Gross Load	222	Market/Net Seller	34	34
AAEE	-4	Battery	0	0
Behind the meter DG	-6	MUNI/QF	28	28
Net Load	212	Solar	0	0
Transmission Losses	3	Existing 20-minute Demand Response	0	0
Pumps	0	Mothballed	0	0
Load + Losses + Pumps	215	Total	62	62

Placer Sub-Area: Requirements



Year	Category	Limiting Facility	Contingency	LCR (MW) (Deficiency)
2026	P6, P7	Drum – Higgins 115 kV line	Gold Hill – Placer #1 and #2 115 kV lines	144 (82)
2030	P6, P7	Drum – Higgins 115 kV line	Gold Hill – Placer #1 and #2 115 kV lines	157 (95)

Placer Sub-area: Load Profiles



Drum – Rio Oso Sub-area

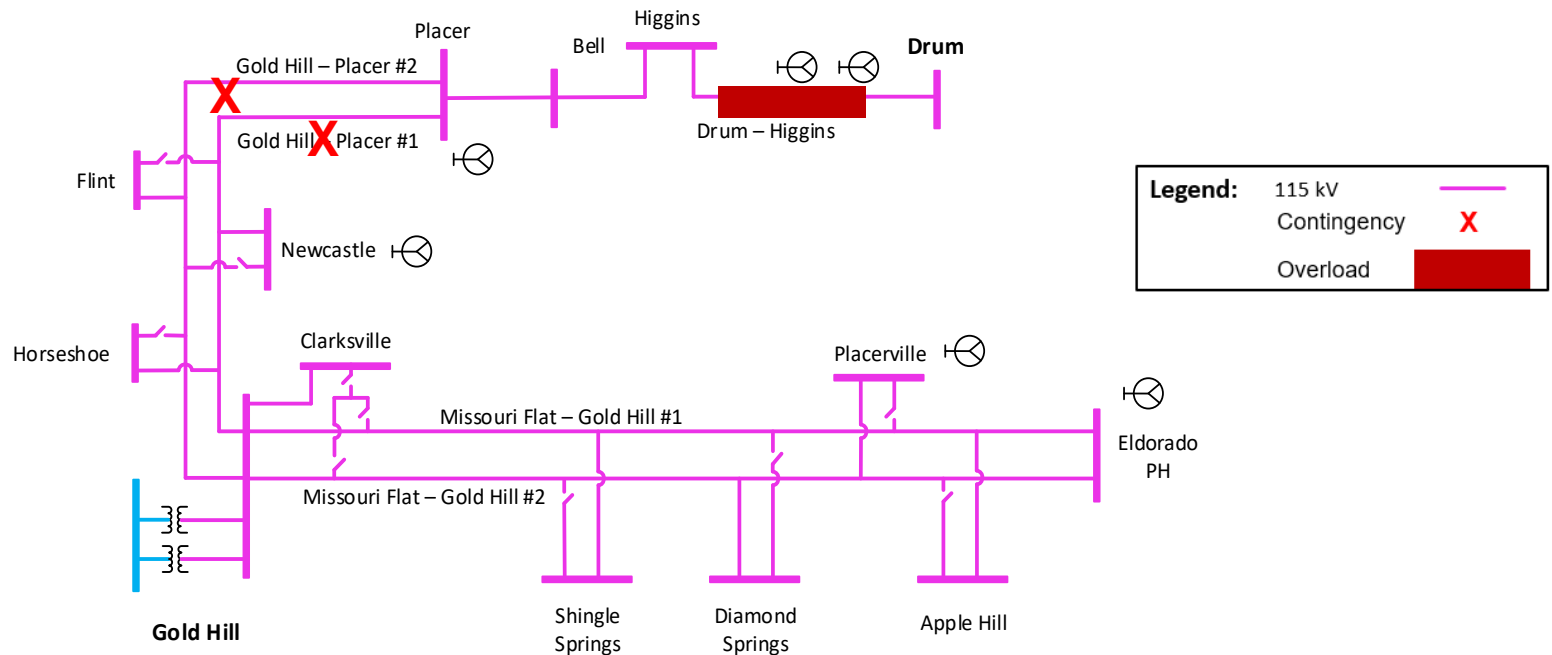
No requirement for either 2026 or 2030 due to the Rio Oso 230/115 kV Transformer Upgrade project.

If the project is delayed all resources in the Drum-Rio Oso sub-area (570 MWs) are required in order to meet the LCR needs, else the sub-area is deficient as previous years.

Gold Hill - Drum Sub-Area : Load and Resources

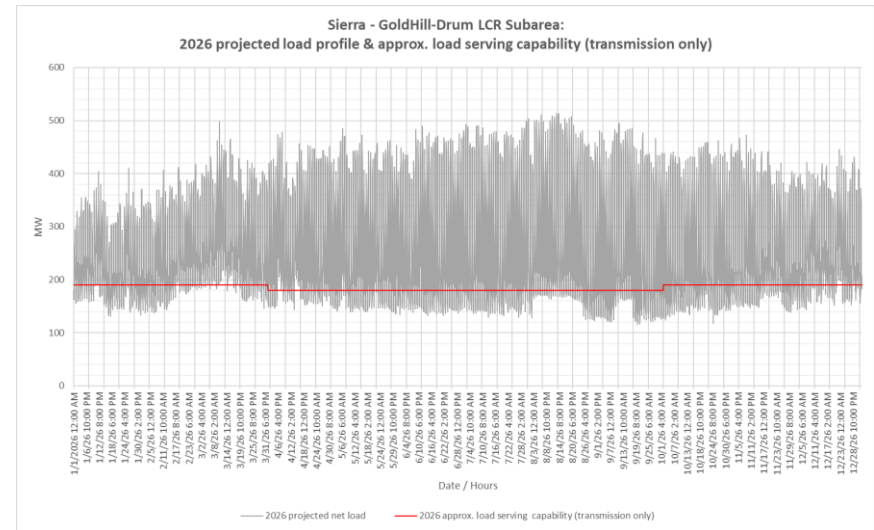
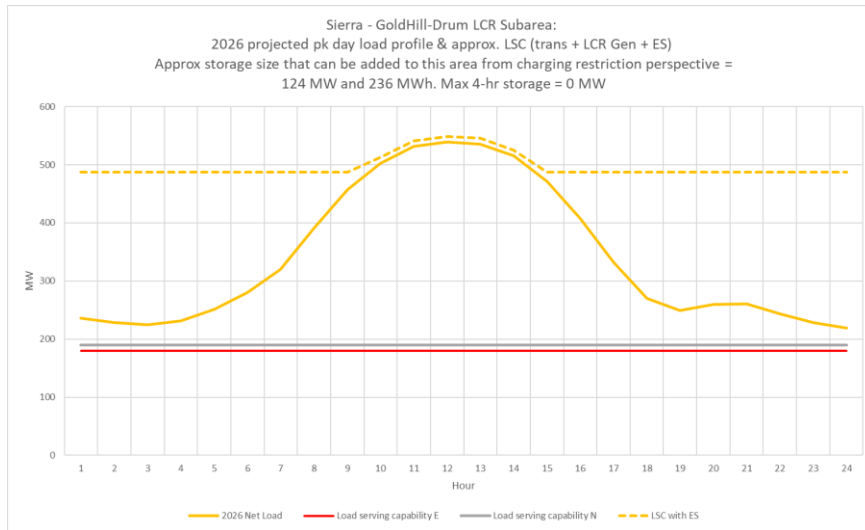
Load (MW)	2026	Generation (MW)	Aug NQC	At Peak
Gross Load	549	Market/Net Seller	49	49
AAEE	-8	Battery	0	0
Behind the meter DG	-13	MUNI/QF	28	28
Net Load	528	Solar	0	0
Transmission Losses	10	Existing 20-minute Demand Response	0	0
Pumps	0	Mothballed	0	0
Load + Losses + Pumps	538	Total	77	77

Gold Hill - Drum Sub-Area: Requirements

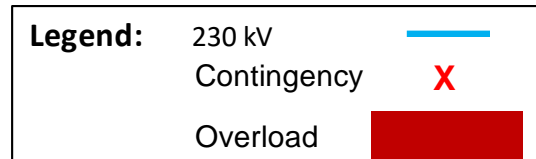
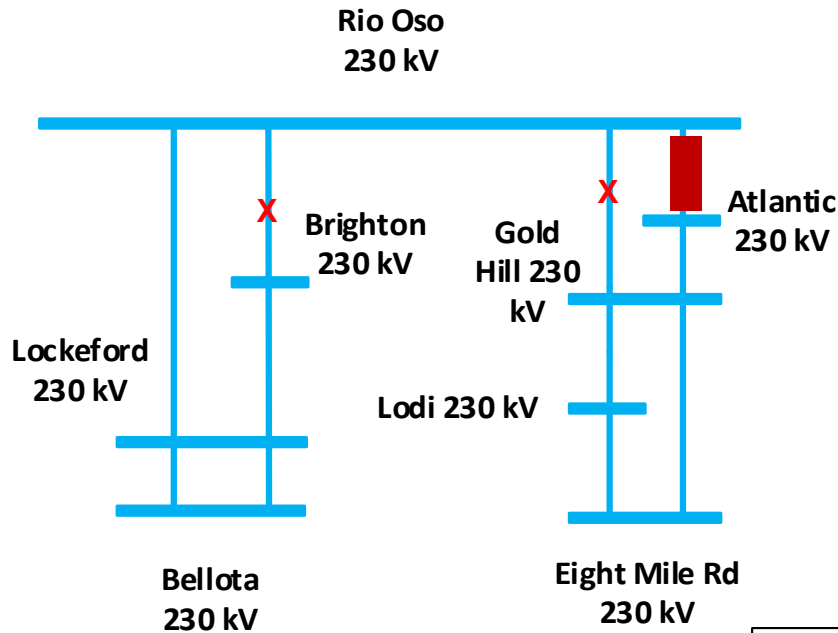


Year	Category	Limiting Facility	Contingency	LCR (MW) (Deficiency)
2026	P6	Drum – Higgins 115 kV	Gold Hill 230/115 kV #1 and Gold Hill 230/115 kV #2 Transformers	428 (351)
2030	No LCR due to implementation of Gold Hill 230/115 kV Transformer Addition Project			No requirements

Gold Hill - Drum Sub-area: Load Profiles

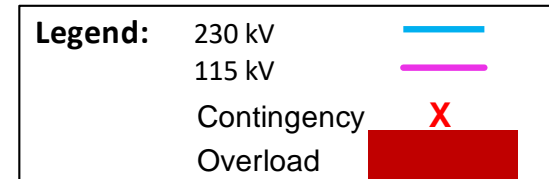
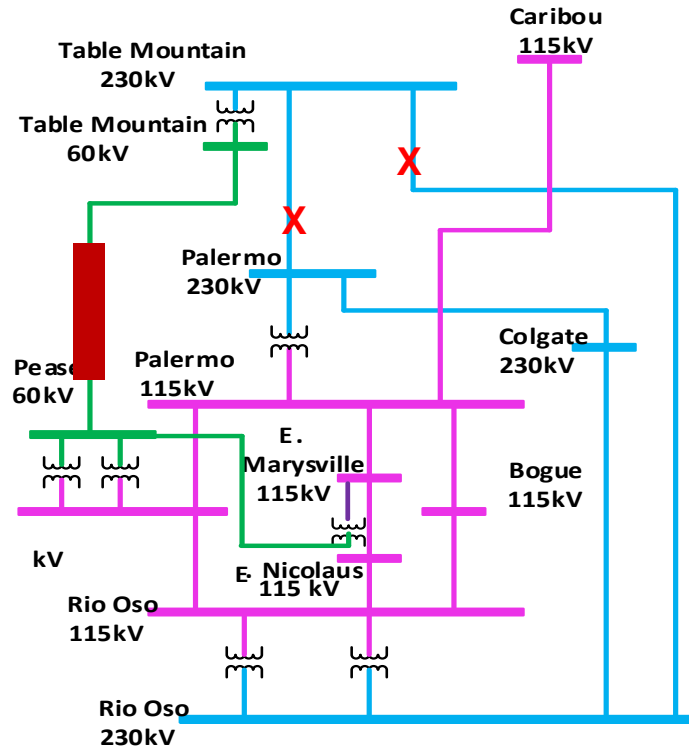


South of Rio Oso Sub-Area: Requirements



Year	Category	Limiting Facility	Contingency	LCR (MW) (Deficiency)
2026	P6	Rio Oso – Atlantic 230 kV Line	Rio Oso – Gold Hill 230 kV Rio Oso – Brighton 230 kV	502
2030	P6	Rio Oso – Atlantic 230 kV Line	Rio Oso – Gold Hill 230 kV Rio Oso – Brighton 230 kV	521

Sierra Overall: Requirements



Year	Category	Limiting Facility	Contingency	LCR (MW) (Deficiency)
2026	P6, P7	Table Mountain – Pease 60 kV Line	DCTL of Table Mtn. – Palermo and Table Mtn. Rio Oso 230 kV lines	1354
2030	P6, P7	Table Mountain – Pease 60 kV Line	DCTL of Table Mtn. – Palermo and Table Mtn. Rio Oso 230 kV lines	1911

Changes from 2025 to 2026

Sub-area	2025		2026	
	Load	LCR	Load	LCR
Pease	186	108	158	53
Placer	197	125 (61)	206	144 (82)
Gold Hill - Drum	566	461 (386)	538	428 (351)
South of Rio Oso	N/A	453	N/A	502
Sierra Overall	N/A	1532	N/A	1354
Total	2000	1918 (386)	1853	1705 (351)

The load forecast for the overall area has declined between 2025 and 2026, leading to a corresponding decrease in the overall Local Capacity Requirement (LCR).

N/A=Flow-through area. No defined load pocket.

Changes from 2029 to 2030

Sub-area	2029		2030	
	Load	LCR	Load	LCR
Pease	N/A	N/A	N/A	N/A
Placer	194	115 (51)	215	157 (95)
Gold Hill - Drum	N/A	N/A	N/A	N/A
South of Rio Oso	N/A	471	N/A	521
Sierra Overall	N/A	1885	N/A	1911
Total	1978	1936 (51)	1981	2006 (95)

The load forecast for the overall area has risen between 2029 and 2030, resulting in a corresponding increase in the overall Local Capacity Requirement (LCR).

- No LCR for Gold Hill-Drum sub-area, due to implementation of Gold Hill 230/115 kV Transformer Addition Project.
- No LCR due to implementation of East Marysville 115/60 kV Project Implementation

N/A=Flow-through area. No defined load pocket.

Sierra Area Total LCR Need

Study Year	Existing Generation Capacity Needed (MW)	Deficiency (MW)	Total MW Need
2026	1354	351	1705
2030	1911	95	2006