



# 2025 & 2029 Final LCR Study Results North Coast & North Bay Area

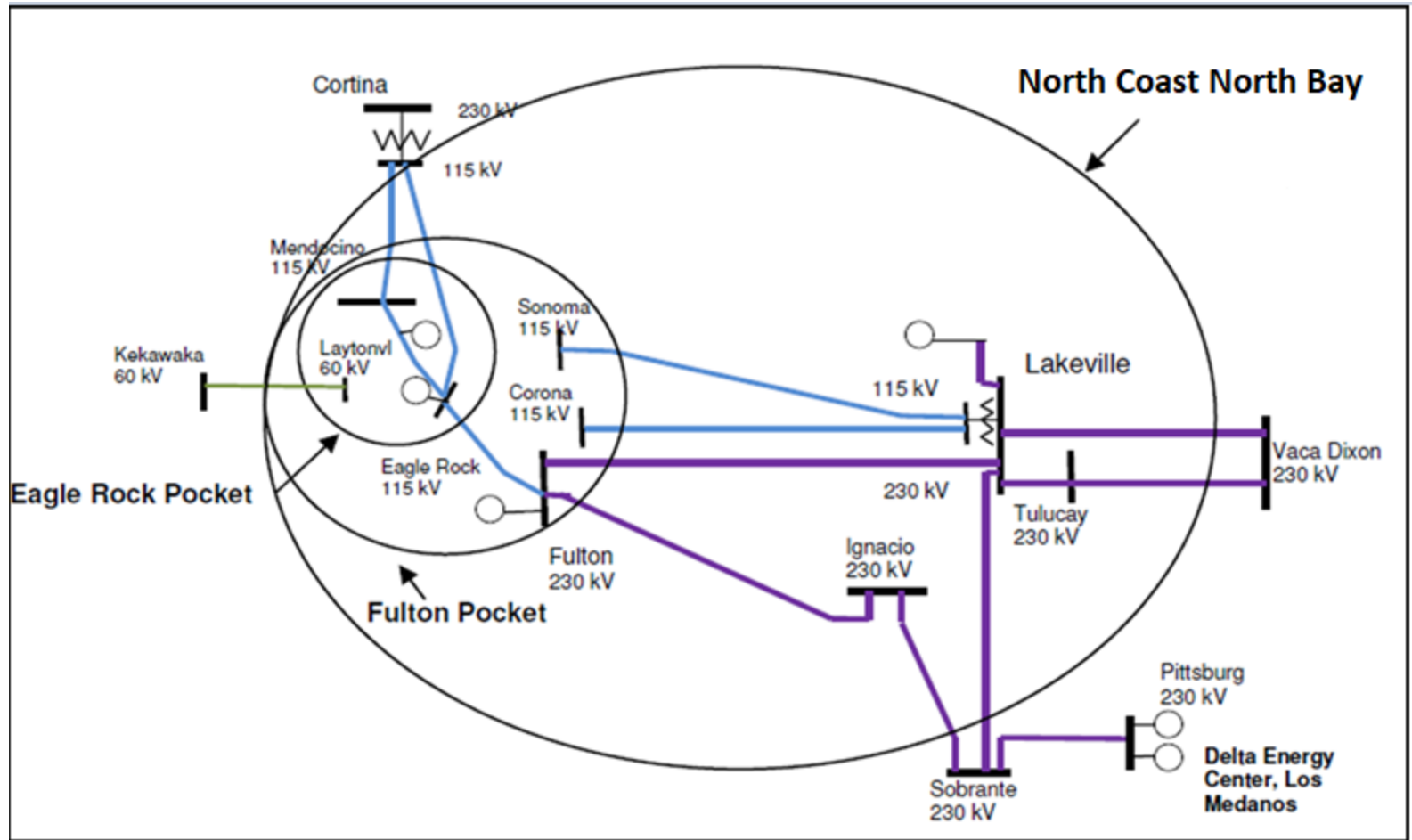
Binaya Shrestha

Regional Transmission North

Stakeholder Call

April 11, 2024

# North Coast & Bay Area Transmission System



# Major transmission projects

Project Name	Expected ISD
Lakeville 60 kV Area Reinforcement	Dec 2028
Clear Lake 60 kV System Reinforcement	Jul 2029
Vaca Dixon-Lakeville 230 kV Corridor Series Compensation	Jul 2026
Tulucay-Napa #2 60 kV line Reconductoring project	Dec 2026
Santa Rosa 115 kV lines Reconductoring project	Dec 2028
New Collinsville 500 kV Substation	Dec 2027

## Resource Additions:

- No new resource additions

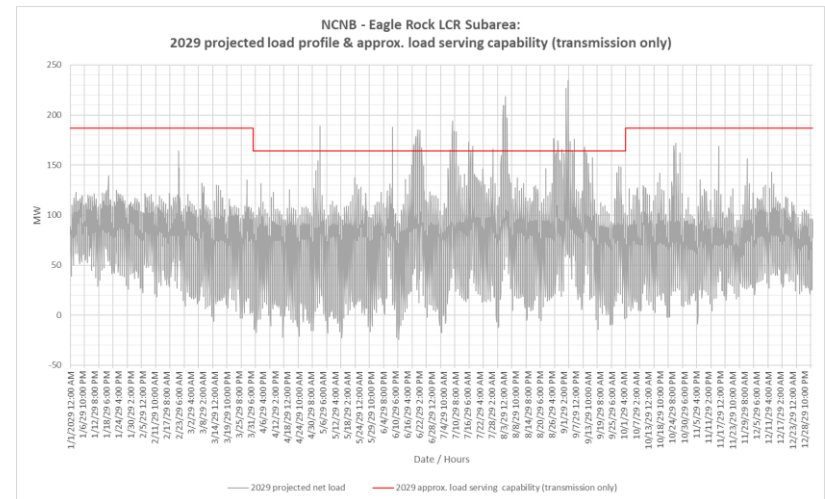
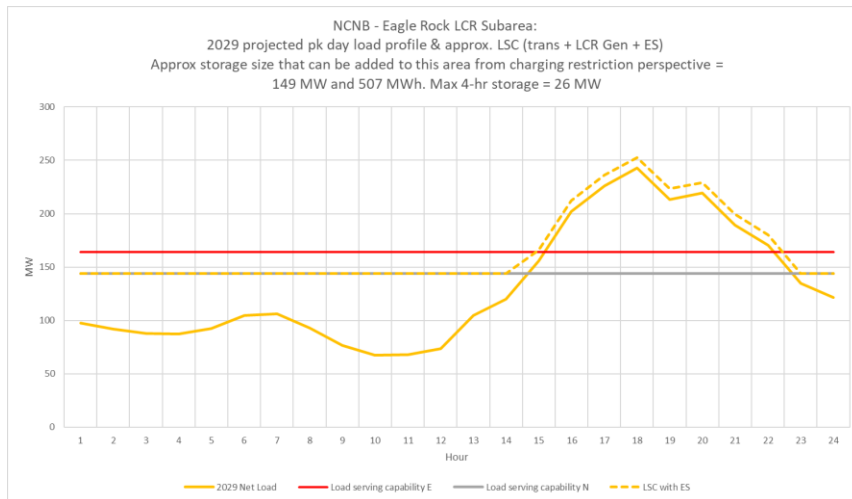
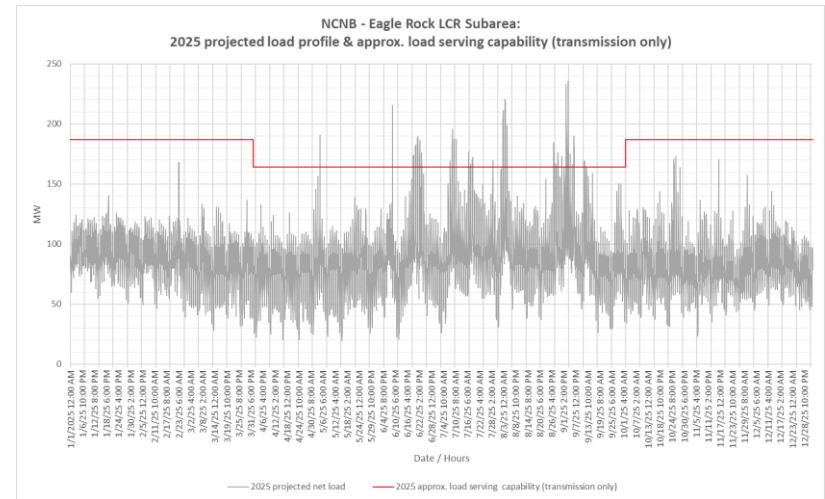
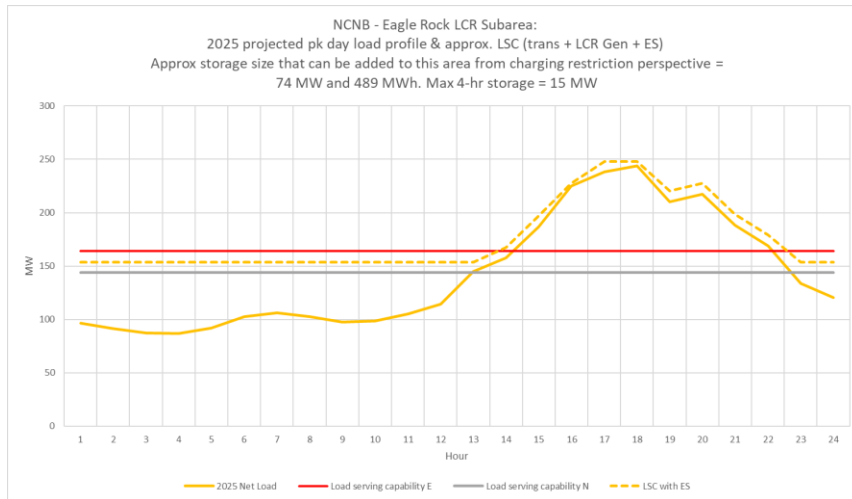
## Resource Retirements:

- No new retirements

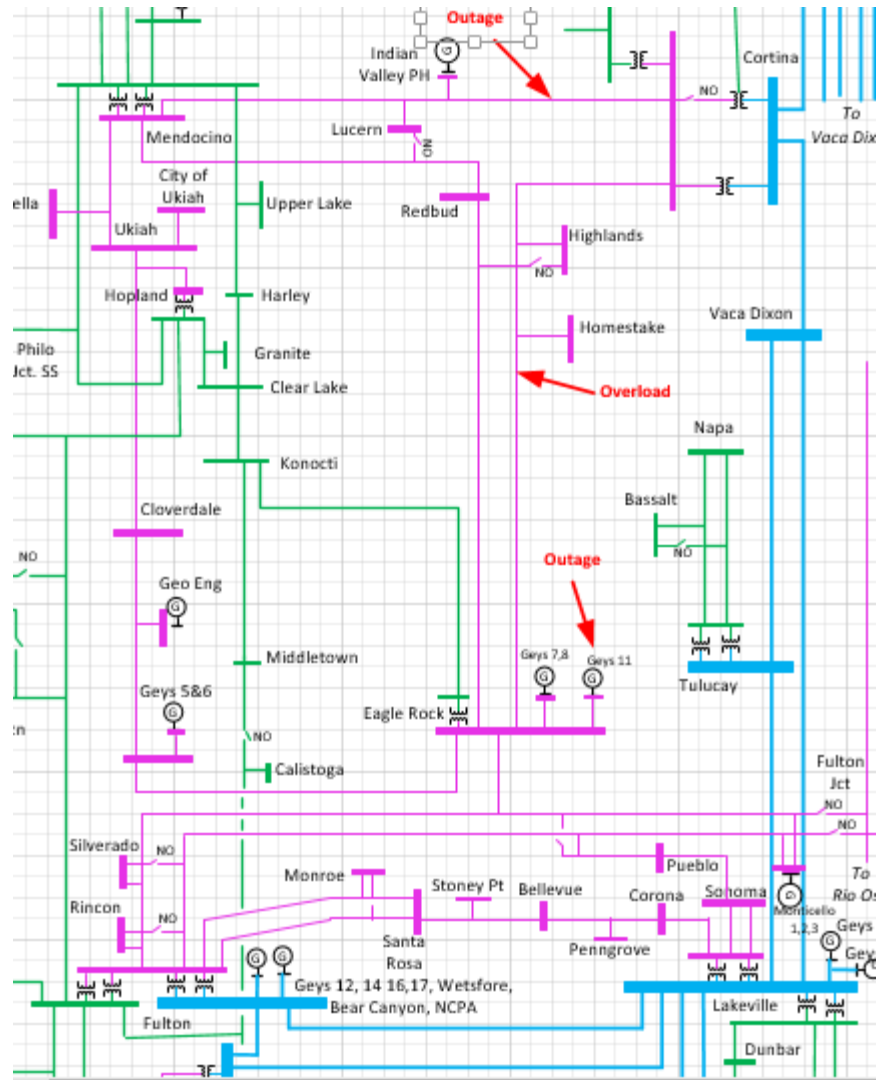
## Eagle Rock Sub-area: Load and Resources

Load (MW)	2025	2029	Generation (MW)	2025	2029
Gross Load	242	246	Market/Net Seller	271	271
AAEE	-2	-4	Battery	0	0
Behind the meter DG	-9	-9	Muni/QF	2	2
<b>Net Load</b>	<b>231</b>	<b>233</b>	Solar	0	0
Transmission Losses	13	13	Existing 20-minute Demand Response	0	0
Pumps	0	0	Mothballed	0	0
<b>Load + Losses + Pumps</b>	<b>244</b>	<b>246</b>	<b>Total Qualifying Capacity</b>	<b>273</b>	<b>273</b>

# Eagle Sub-area: Load Profiles



# Eagle Rock Sub-Area: One-line diagram



# Eagle Rock Sub-Area: Requirements

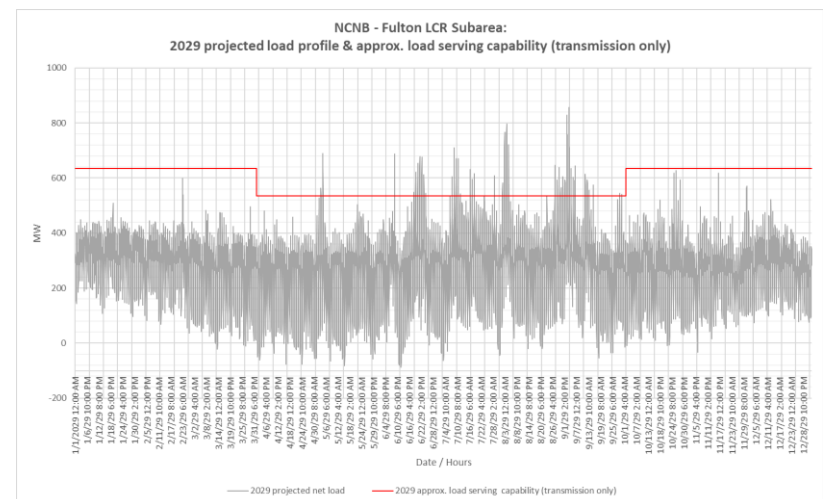
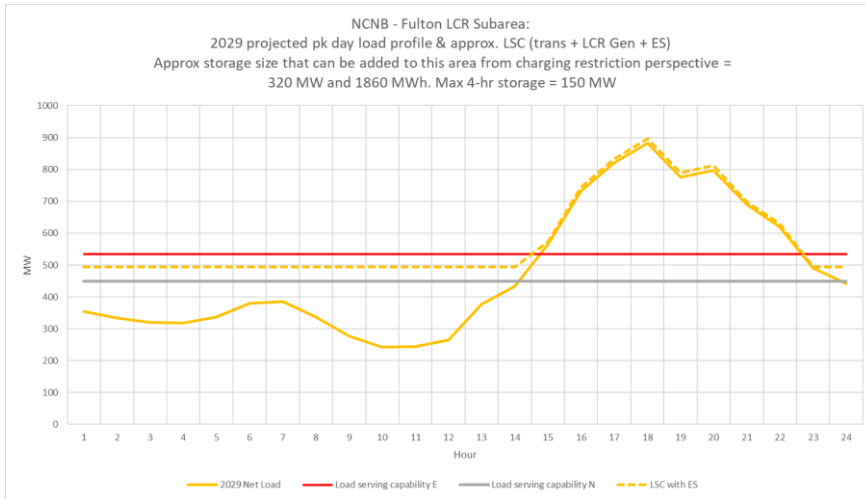
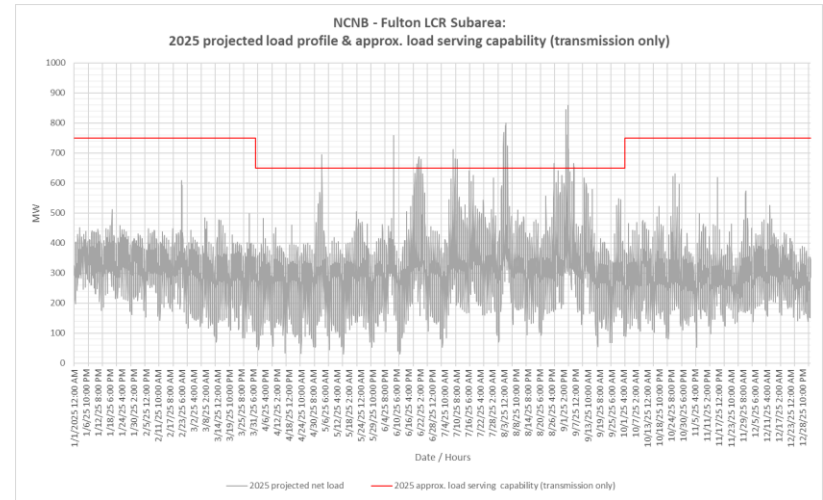
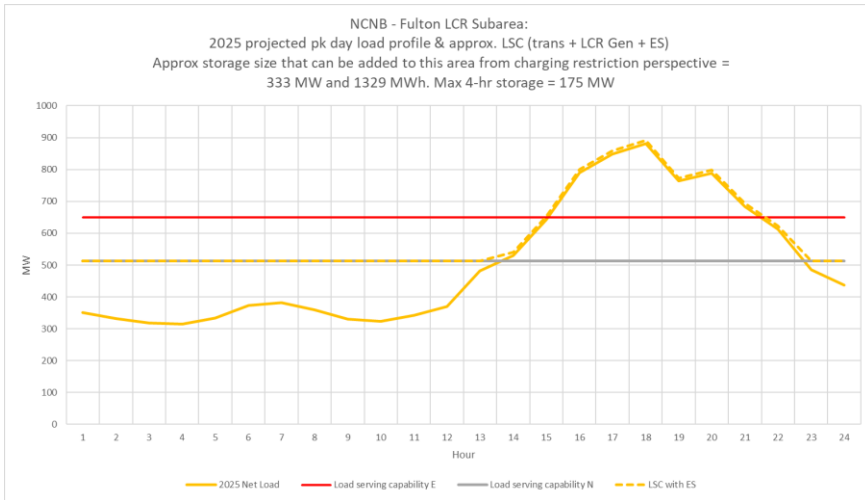
Year	Limit	Category	Limiting Facility	Contingency	LCR (MW) (Deficiency)
2025	First Limit	P3	Thermal overload on Eagle Rock-Cortina 115 kV line	Cortina-Mendocino 115 kV line with Geyser #11 unit out of service	186
2029	First Limit	P3	Thermal overload on Eagle Rock-Cortina 115 kV line	Cortina-Mendocino 115 kV line with Geyser #11 unit out of service	149

## Fulton Sub-area: Load and Resources

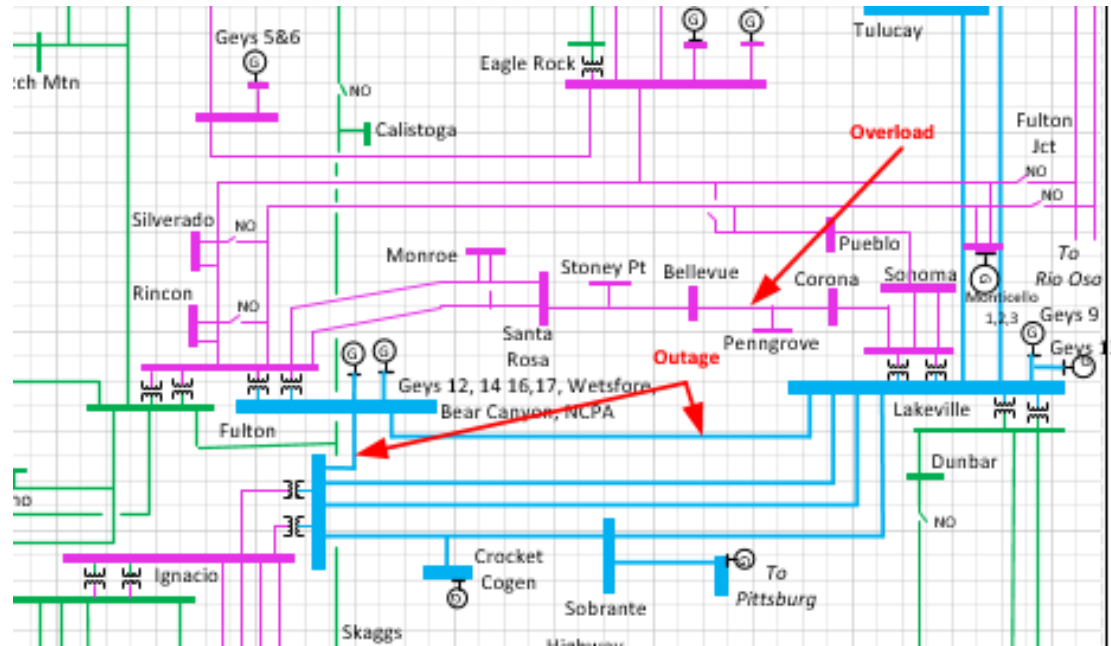
Load (MW)	2025	2029	Generation (MW)	2025	2029
Gross Load	901	915	Market/Net Seller	537	537
AAEE	-7	-13	Battery	0	0
Behind the meter DG	-34	-34	Muni/QF	57	57
<b>Net Load</b>	<b>860</b>	<b>868</b>	Solar	0	0
Transmission Losses	24	19	Existing 20-minute Demand Response	0	0
Pumps	0	0	Mothballed	0	0
<b>Load + Losses + Pumps</b>	<b>884</b>	<b>887</b>	<b>Total Qualifying Capacity</b>	<b>594</b>	<b>594</b>



# Fulton Sub-area: Load Profiles



# Fulton Sub-Area: One-line diagram



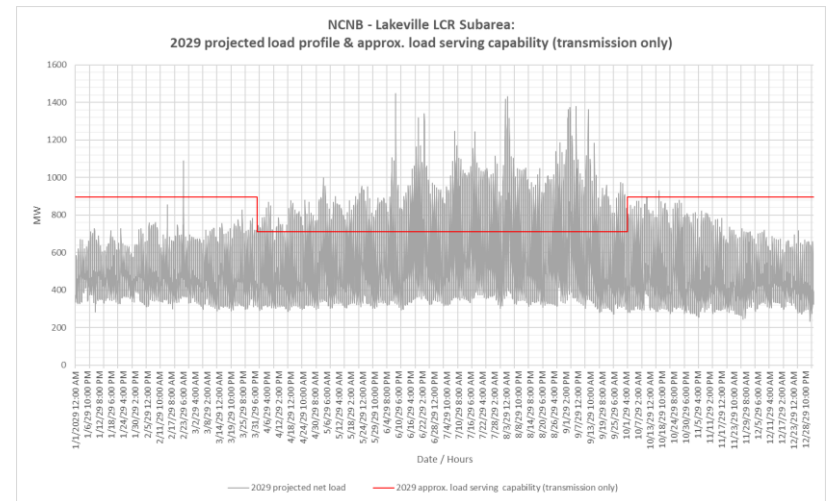
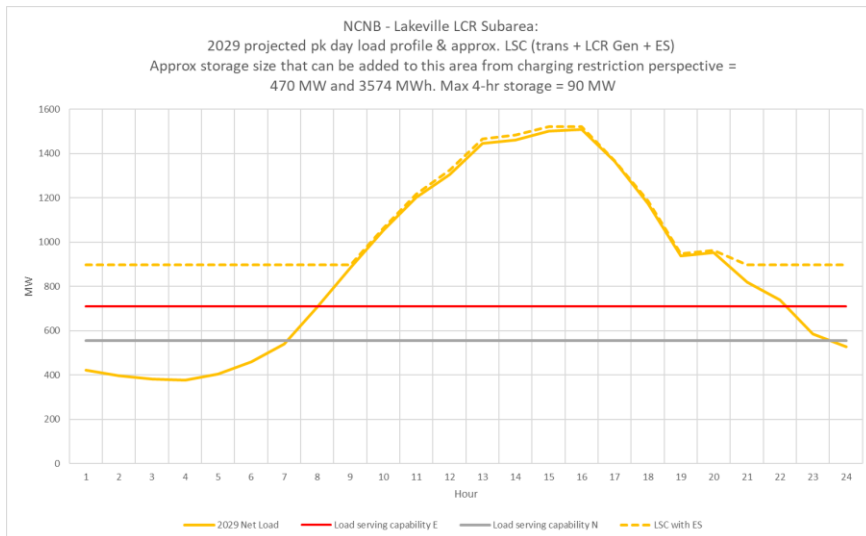
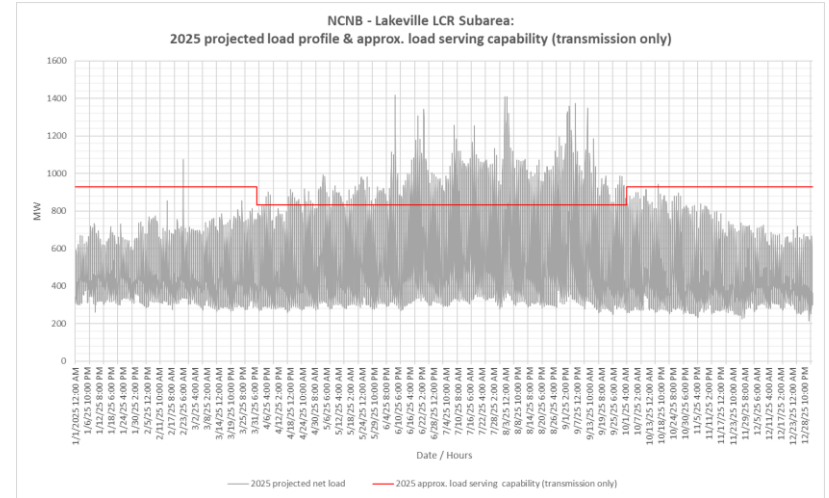
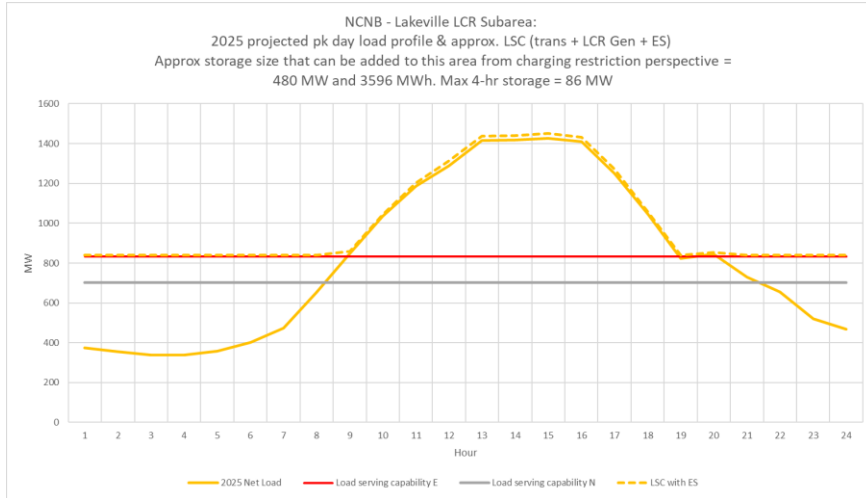
# Fulton Sub-Area: Requirements

Year	Limit	Category	Limiting Facility	Contingency	LCR (MW) (Deficiency)
2025	First Limit	P6	Thermal overload on Lakeville-Corona 115kV Line	Fulton-Lakeville and Fulton-Ignacio 230 kV lines	333
2029	First Limit	P6	Thermal overload on Eagle Rock-Cortina 115 kV line	Fulton-Lakeville and Fulton-Ignacio 230 kV lines	383

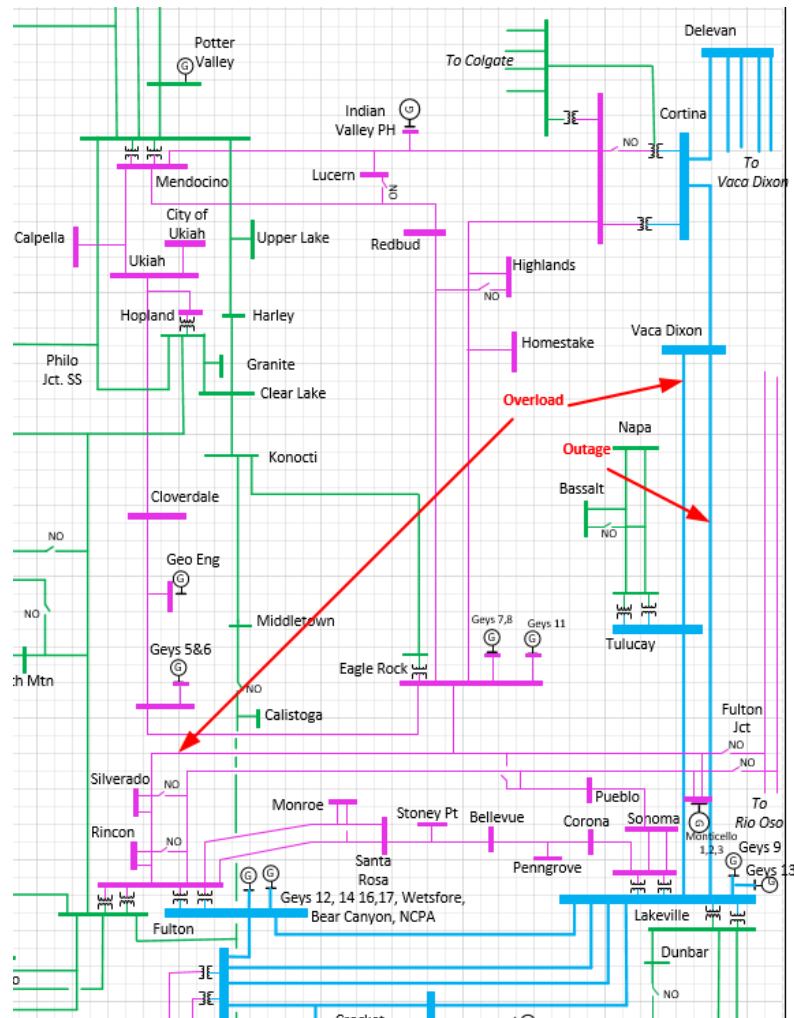
## NCNB Overall: Load and Resources

<b>Load (MW)</b>	<b>2025</b>	<b>2029</b>	<b>Generation (MW)</b>	<b>2025</b>	<b>2029</b>
Gross Load	1514	1567	Market/Net Seller	837	837
AAEE	-13	-24	Battery	0	0
Behind the meter DG	-59	-59	Muni/QF	136	136
<b>Net Load</b>	<b>1442</b>	<b>1484</b>	Solar	0	0
Transmission Losses	41	33	Existing 20-minute Demand Response	12	12
Pumps	0	0	Mothballed	0	0
<b>Load + Losses + Pumps</b>	<b>1483</b>	<b>1517</b>	<b>Total Qualifying Capacity</b>	<b>985</b>	<b>985</b>

# NCNB: Load Profiles



# NCNB Area: One-line diagram



# NCNB Overall Area: Requirement

Year	Limit	Category	Limiting Facility	Contingency	LCR (MW) (Deficiency)
2025	First	P3	Vaca Dixon-Tulucay 230 kV line	Vaca Dixon-Lakeville 230 kV line with Delta Energy Center power plant out of service	967
2029	First	P6	Thermal overload on Eagle Rock-Cortina 115 kV line	Vaca Dixon-Tulucay 230 kV and Cortina- Mendocino 115 kV lines	650

# North Coast & North Bay Area Total Generation & LCR Need

Generation	Market/Net Seller (MW)	Battery (MW)	Muni/QF (MW)	Solar (MW)	DR (MW)	Total MW
2025	837	0	136	0	12	985
2029	837	0	136	0	12	985

Year	LCR Need	Generation Capacity Needed (MW)	Deficiency (MW)	Total MW Need
2025	P3	967	0	967
2029	P6	650	0	650



# Changes Compared to Previous LCR Requirements

Sub-area	2024		2028		2025		2029	
	Load	LCR	Load	LCR	Load	LCR	Load	LCR
<b>Eagle Rock</b>	255	195	265	177	244	186	244	149
<b>Fulton</b>	890	304	936	330	884	333	887	383
<b>NCNB Overall</b>	1495	983	1572	891	1483	967	1517	650

The decrease in 2025 Overall LCR need is mostly due to decrease in load forecast.

The decrease in 2029 Overall LCR need is mostly due to approved projects.