



# 2022 & 2026 Final LCR Study Results North Coast & North Bay Area

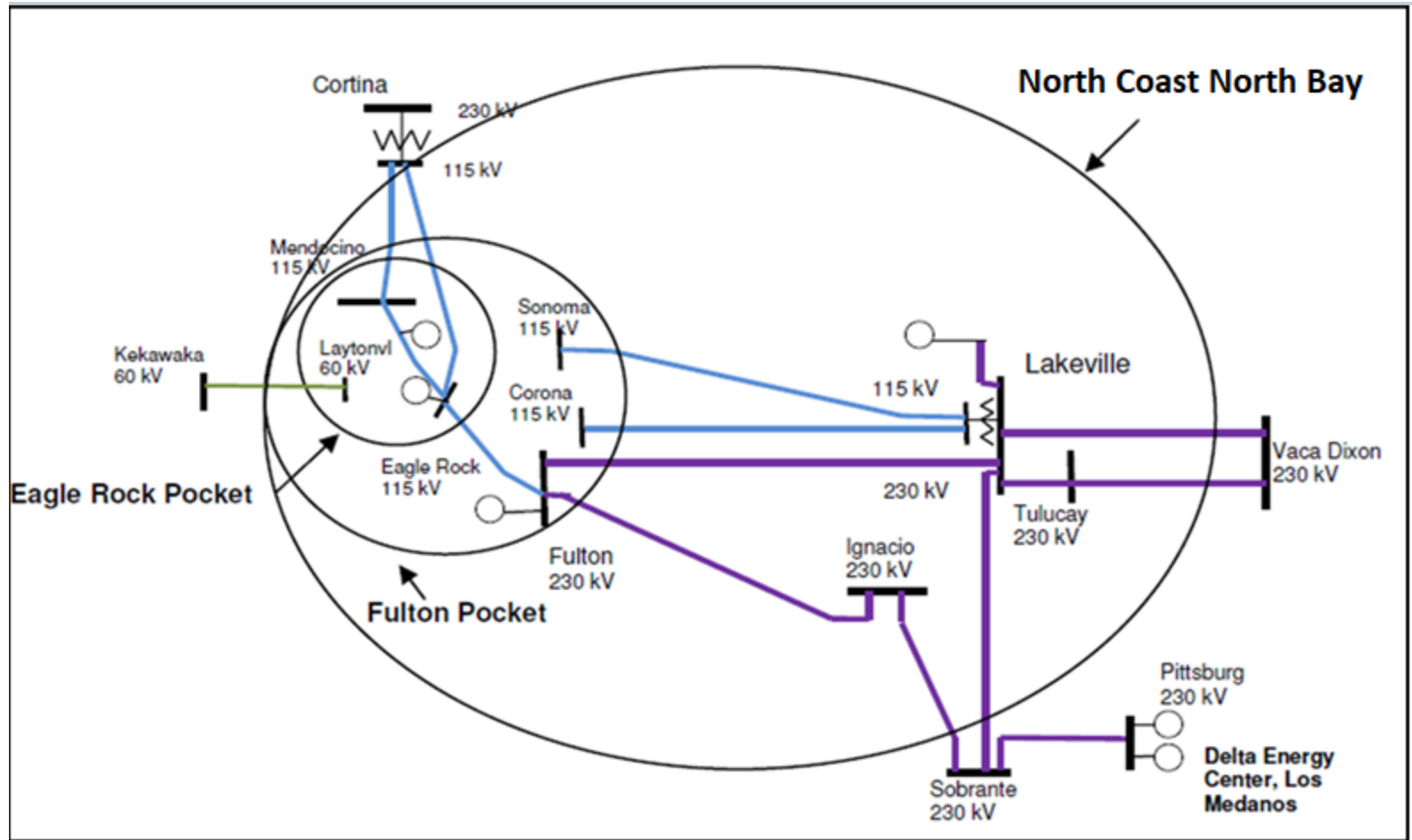
Bryan Fong

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Stakeholder Call

April 7, 2021

# North Coast & Bay Area Transmission System



# Major transmission projects

Project Name	Expected ISD
Clear Lake 60 kV System Reinforcement	2022
Ignacio Area Upgrade	2023

## Resource Additions:

- No new resource additions

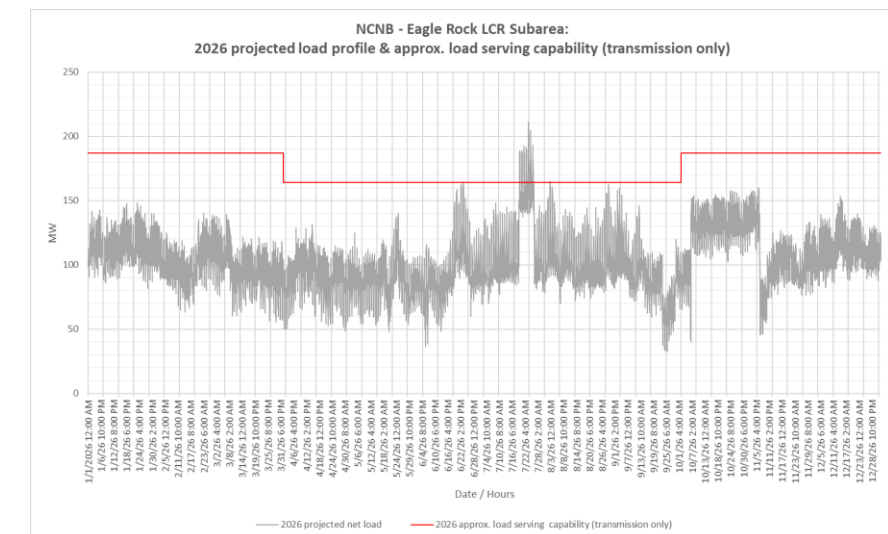
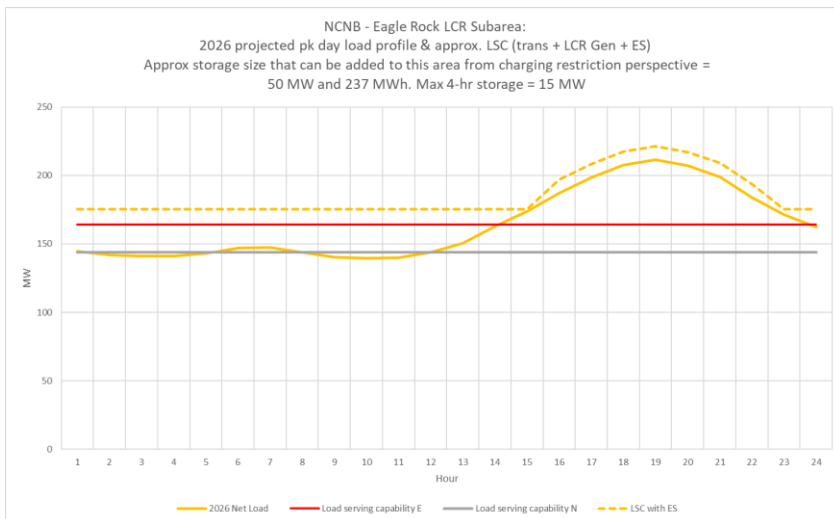
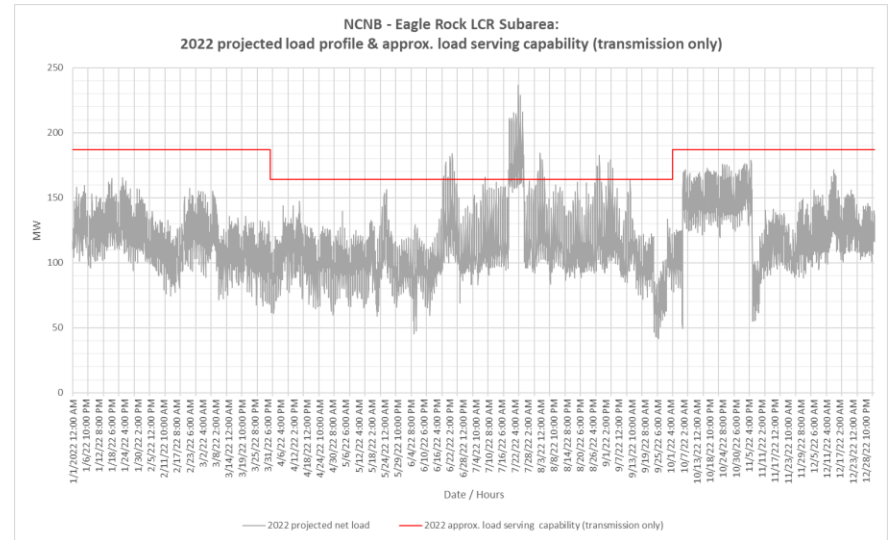
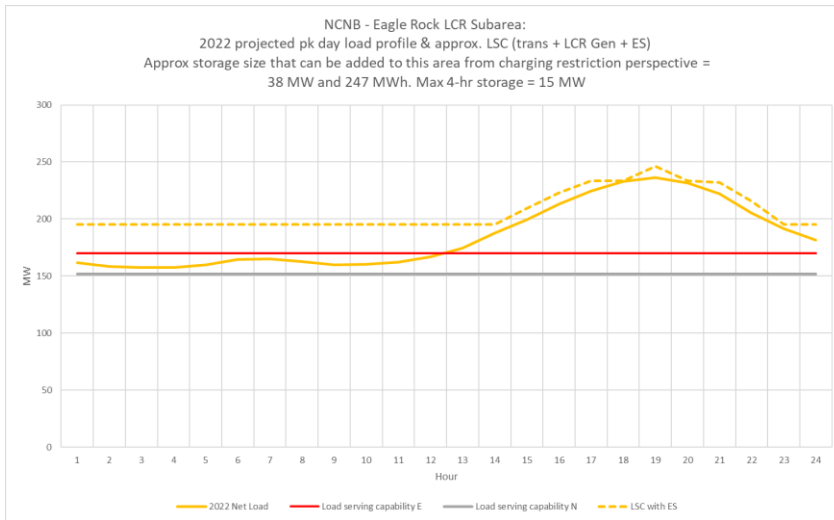
## Resource Retirements:

- No new retirements

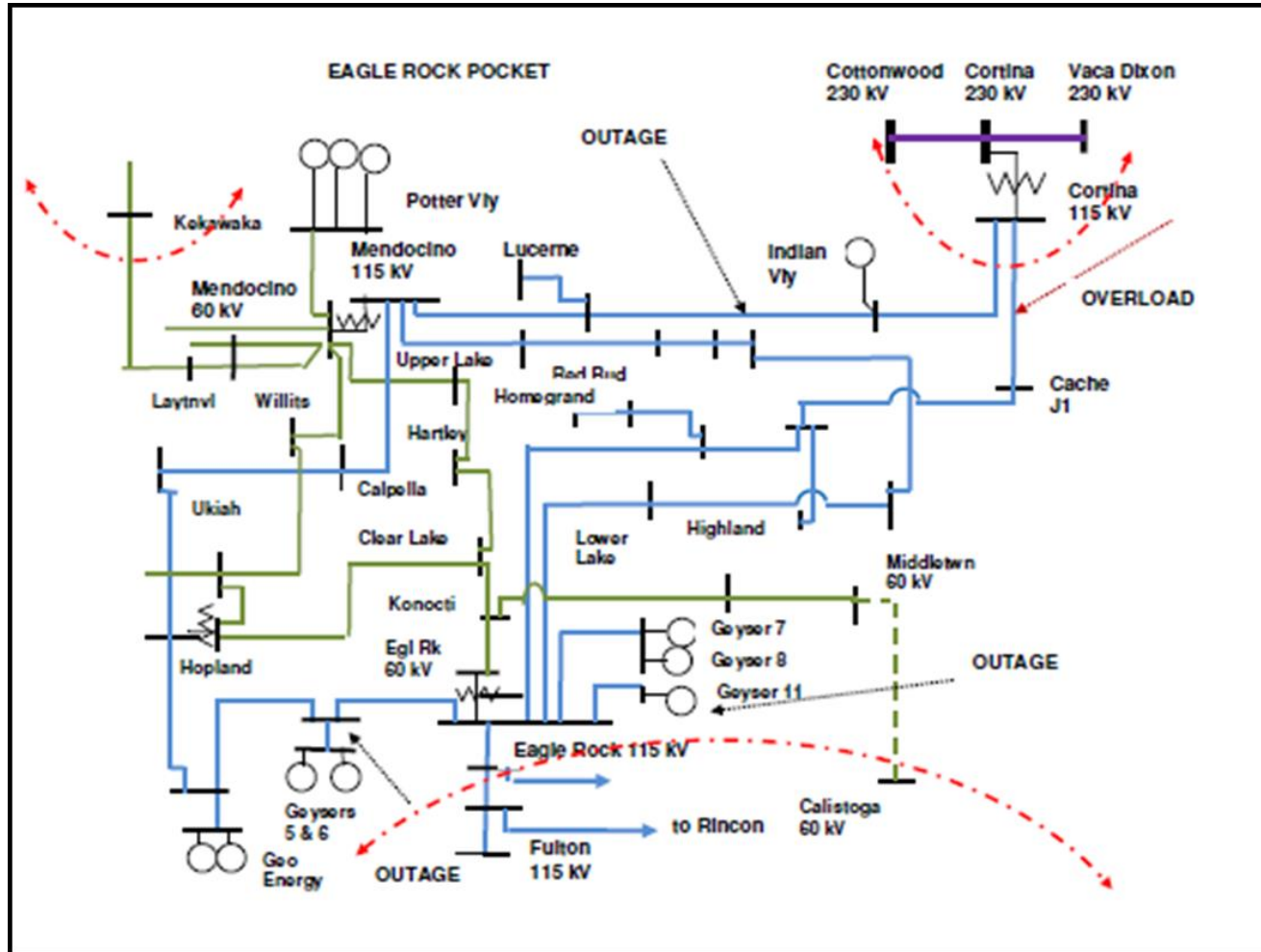
## Eagle Rock Sub-area: Load and Resources

Load (MW)	2022	2026	Generation (MW)	2022	2026
Gross Load	253	226	Market	249	249
AAEE	-3	-2	Solar	0	0
Behind the meter DG	0	0	Muni	2	2
<b>Net Load</b>	<b>250</b>	<b>224</b>	QF	0	0
Transmission Losses	14	12	Future preferred resource and energy storage	0	0
Pumps	0	0	<b>Total Qualifying Capacity</b>	<b>251</b>	<b>251</b>
<b>Load + Losses + Pumps</b>	<b>264</b>	<b>236</b>			

# Eagle Sub-area: Load Profiles



# Eagle Rock Sub-Area: One-line diagram



# Eagle Rock Sub-Area: Requirements

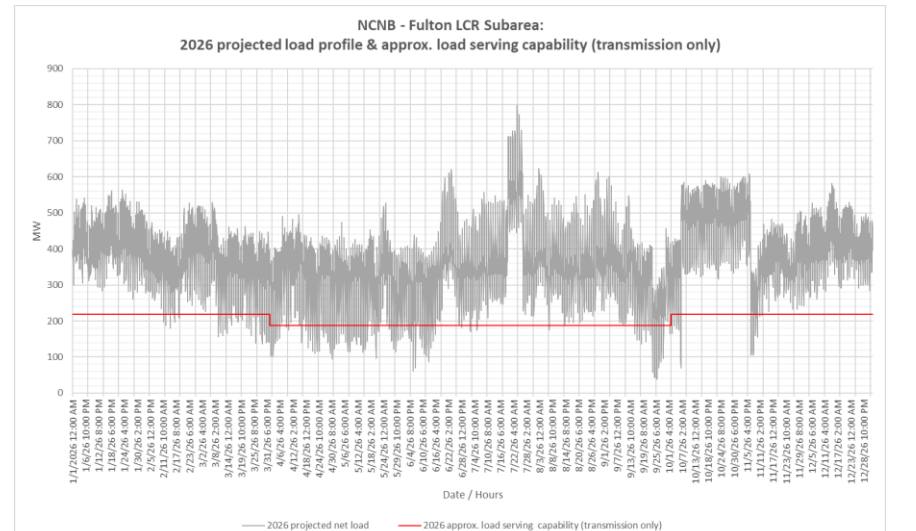
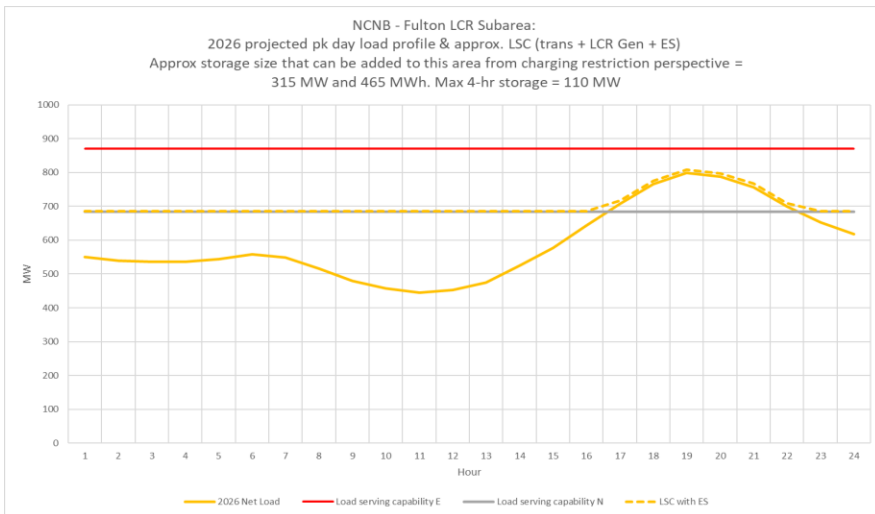
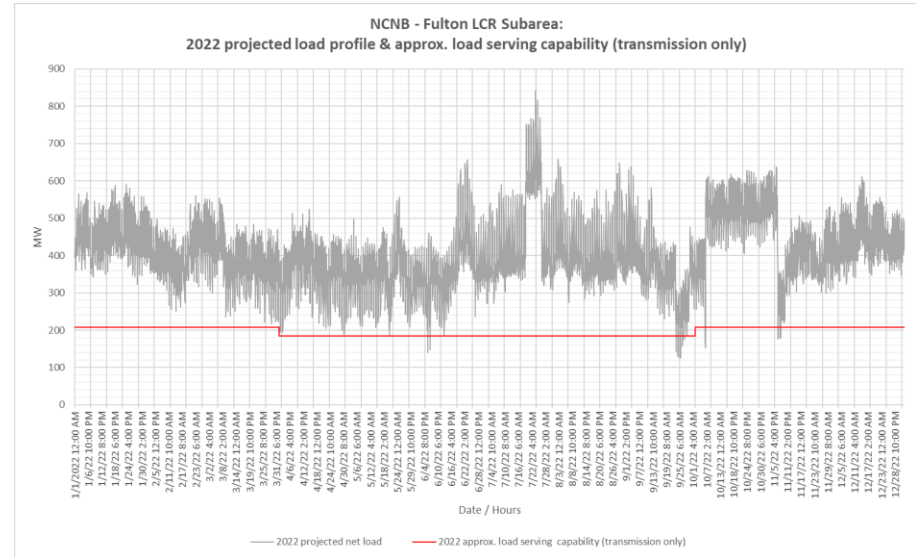
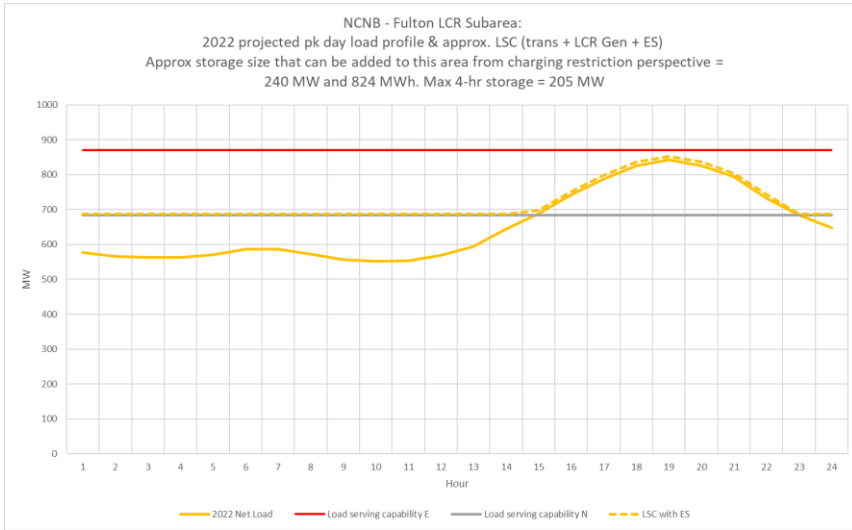
Year	Limit	Category	Limiting Facility	Contingency	LCR (MW) (Deficiency)
2022	First Limit	P3	Thermal overload on Eagle Rock-Cortina 115 kV line	Cortina-Mendocino 115 kV line with Geyser #11 unit out of service	213
2026	First Limit	P3	Thermal overload on Eagle Rock-Cortina 115 kV line	Cortina-Mendocino 115 kV line with Geyser #11 unit out of service	248

## Fulton Sub-area: Load and Resources

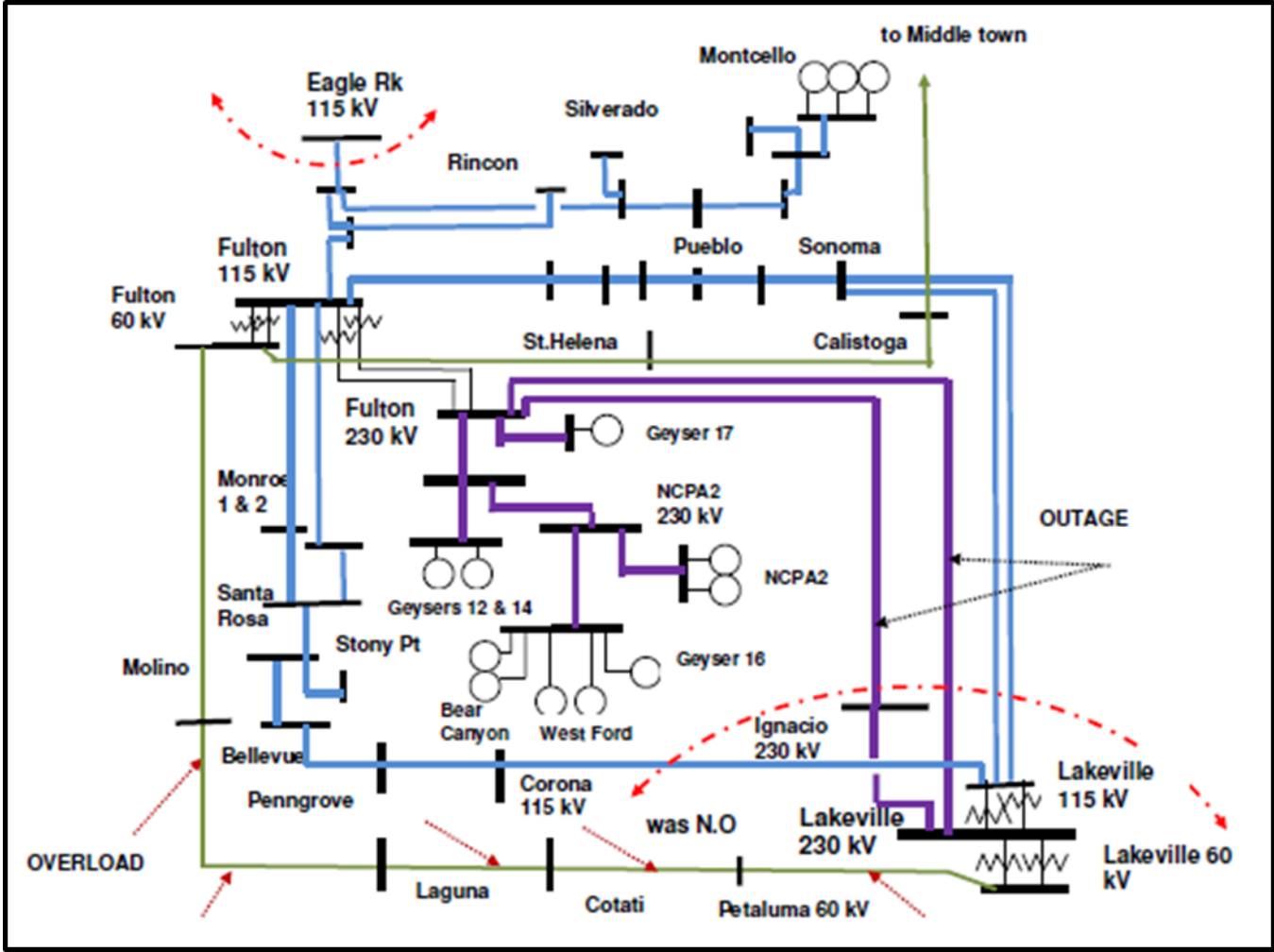
Load (MW)	2022	2026	Generation (MW)	2022	2026
Gross Load	895	851	Market	462	462
AAEE	-11	-7	Wind	0	0
Behind the meter DG	0	0	Muni	54	54
<b>Net Load</b>	<b>884</b>	<b>844</b>	QF	5	5
Transmission Losses	25	22	Future preferred resource and energy storage	0	0
Pumps	0	0	<b>Total Qualifying Capacity</b>	<b>521</b>	<b>521</b>
<b>Load + Losses + Pumps</b>	<b>909</b>	<b>866</b>			



# Fulton Sub-area: Load Profiles



# Fulton Sub-Area: One-line diagram



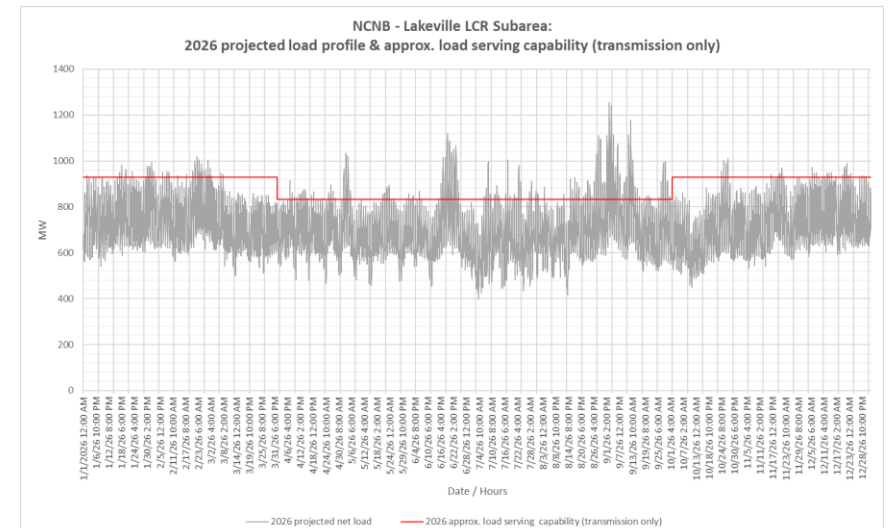
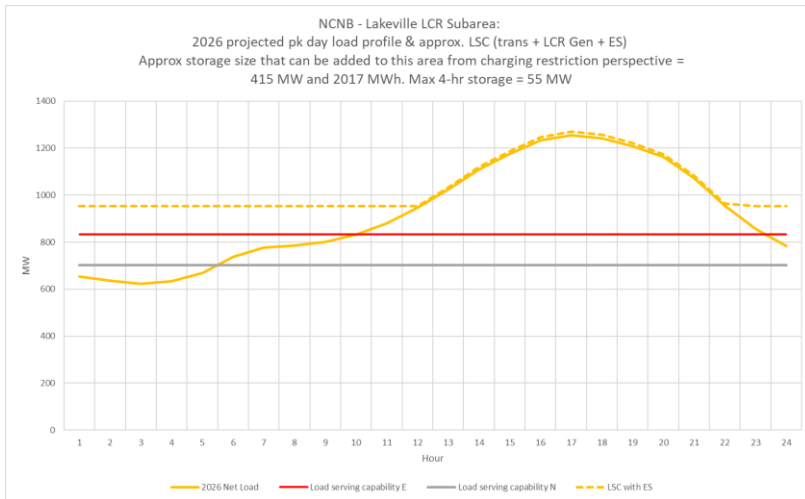
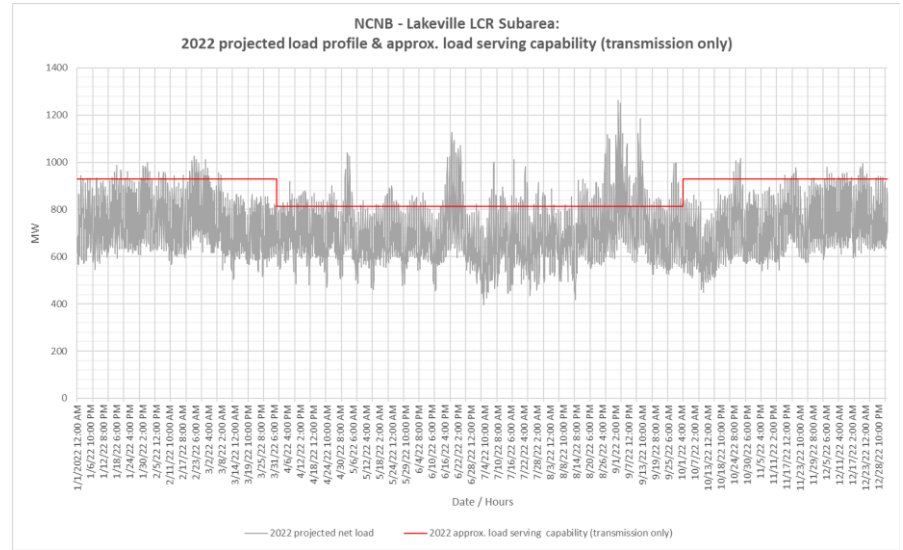
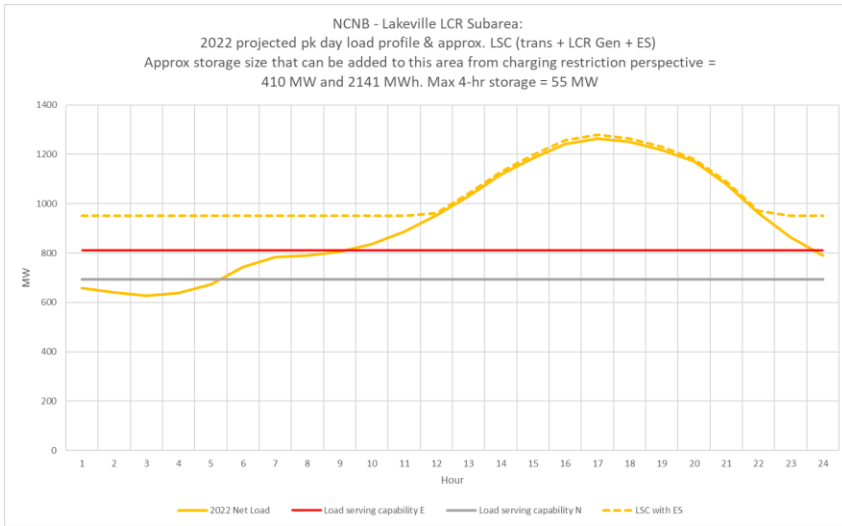
# Fulton Sub-Area: Requirements

Year	Limit	Category	Limiting Facility	Contingency	LCR (MW) (Deficiency)
2022	First Limit	P6	Thermal overload on Sonoma-Pueblo 115kV Line	Fulton-Lakeville and Fulton-Ignacio 230 kV lines	243
2026	First Limit	P6	Thermal overload on Pengrove-Corona 115kV Line	Fulton-Lakeville and Fulton-Ignacio 230 kV lines	316

## North Coast & North Bay Area Overall: Load and Resources

Load (MW)	2022	2026	Generation (MW)	2022	2026
Gross Load	1485	1461	Market	715	715
AAEE	-19	-12	Wind	0	0
Behind the meter DG	0	0	Muni	114	114
<b>Net Load</b>	<b>1466</b>	<b>1449</b>	QF	5	5
Transmission Losses	43	40	Future preferred resource and energy storage	0	0
Pumps	0	0	<b>Total Qualifying Capacity</b>	<b>834</b>	<b>834</b>
<b>Load + Losses + Pumps</b>	<b>1509</b>	<b>1489</b>			

# NCNB: Load Profiles



# NCNB Area: Requirement

Year	#	Category	Limiting Facility	Contingency	LCR (MW) (Deficiency)
2022	First Limit	P3	Vaca Dixon-Lakeville 230 kV line	Vaca Dixon-Tulucay 230 kV line with Delta Energy Center power plant out of service	868 (34)
2026	First Limit	P3	Vaca Dixon-Lakeville 230 kV line	Vaca Dixon-Tulucay 230 kV line with Delta Energy Center power plant out of service	995 (161)

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

Generation	Market (MW)	Wind (MW)	Muni (MW)	QF (MW)	Total MW
2022	715	0	114	5	834
2026	715	0	114	5	834

Year	LCR Need	Existing Generation Capacity Needed (MW)	Deficiency (MW)	Total MW Need
2022	P3	834	34	868
2026	P3	834	161	995

# Changes Compared to Previous LCR Requirements

Subarea	2021		2025		2022		2026	
	Load	LCR	Load	LCR	Load	LCR	Load	LCR
<b>Eagle Rock</b>	232	184	235	188	264	213	236	248
<b>Fulton</b>	866	340	872	272	909	243	866	316
<b>Overall</b>	1456	843	1481	837	1509	868 (34)	1489	995 (161)

The increase in 2022 LCR need is mostly due to load forecast increase.

The increase in 2026 LCR need is mostly due to change in limiting contingency and limiting element.