



2024 & 2028 Draft LCR Study Results Humboldt Area

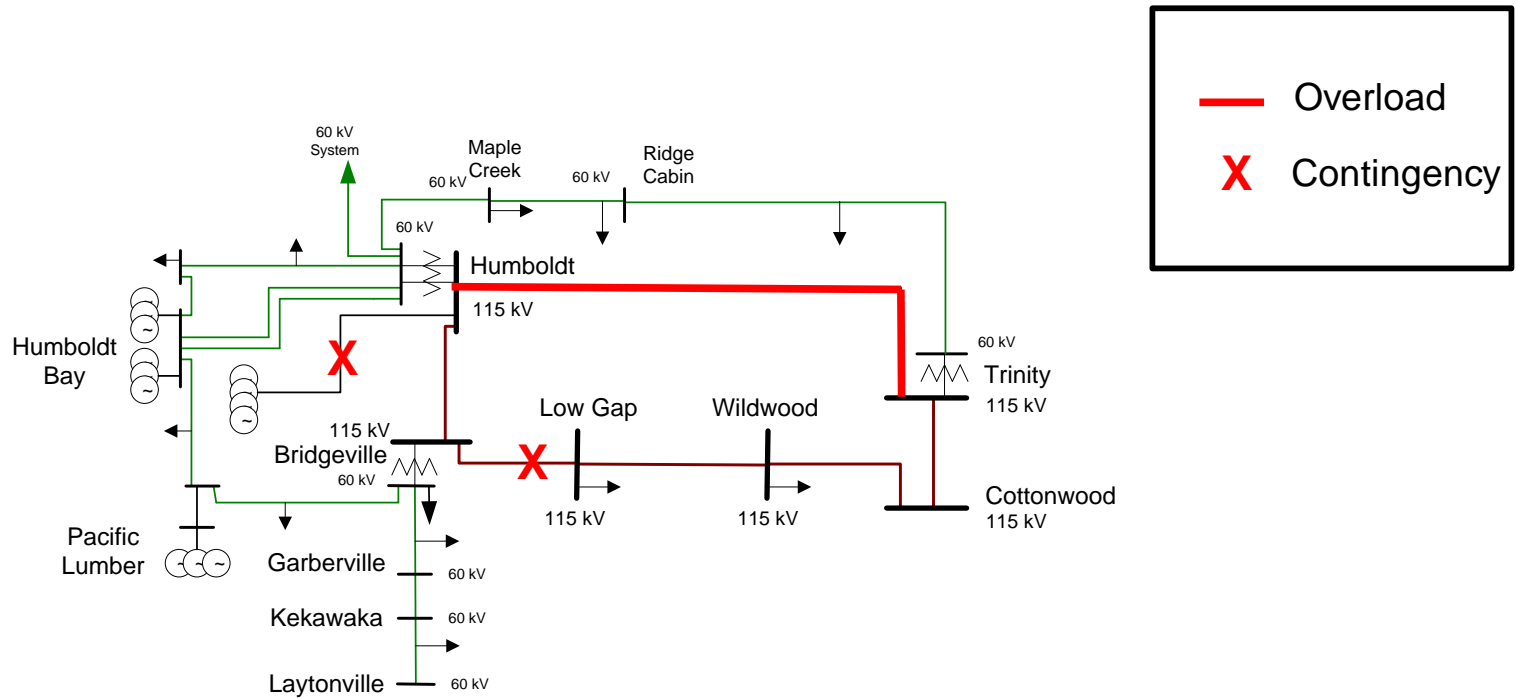
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Stakeholder Call

March 9, 2023

Humboldt Area Transmission System



Humboldt Load and Resources

Load (MW)	2024	2028	Generation (MW)	2024	2028
Gross Load	156	173	Market/Net Seller	176	176
AAEE	-1	-2	Battery	0	0
Behind the meter DG	0	0	Muni/QF	0	0
Net Load	155	171	Solar	0	0
Transmission Losses	18	11	Existing 20-minute Demand Response	0	0
Pumps	0	0	Mothballed	0	0
Load + Losses + Pumps	173	182	Total Qualifying Capacity	176	176

Topology changes

Transmission Additions:

- Maple Creek Reactive Support (rescoped to Willow Creek 60 kV Substation) (2028 only)

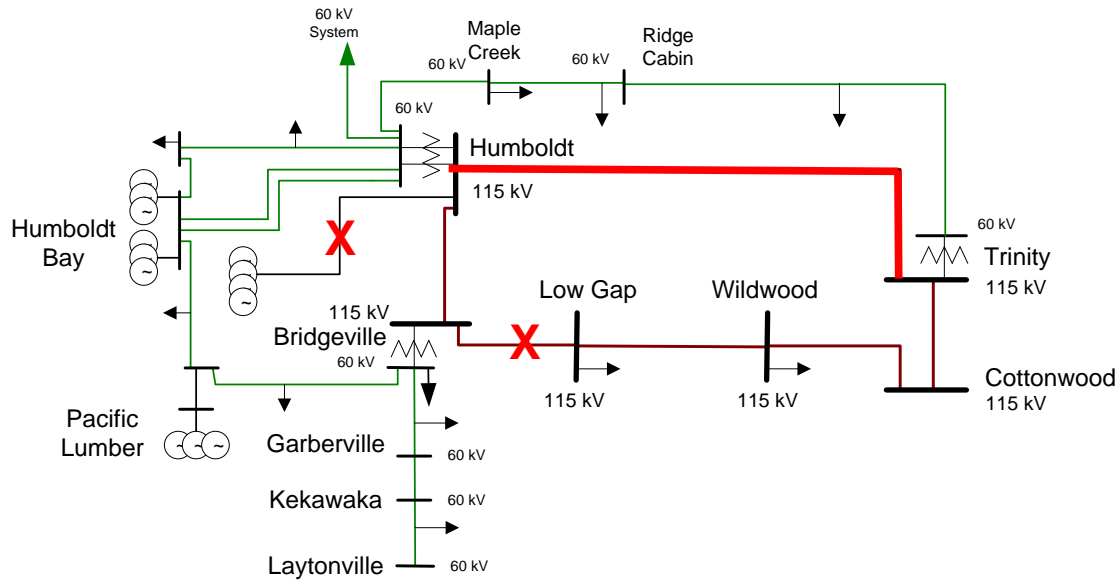
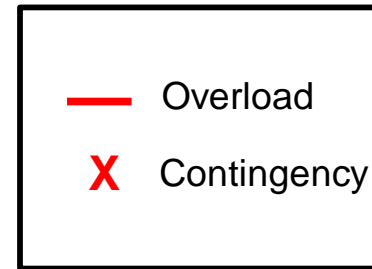
Resource Additions:

- No new resource additions

Resource Retirements:

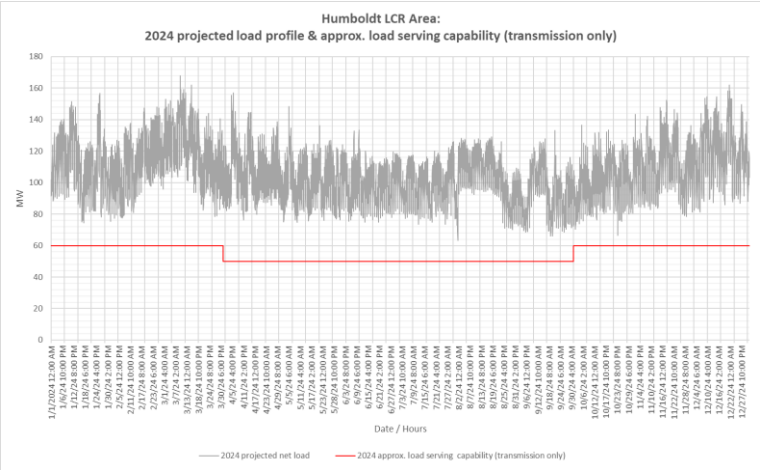
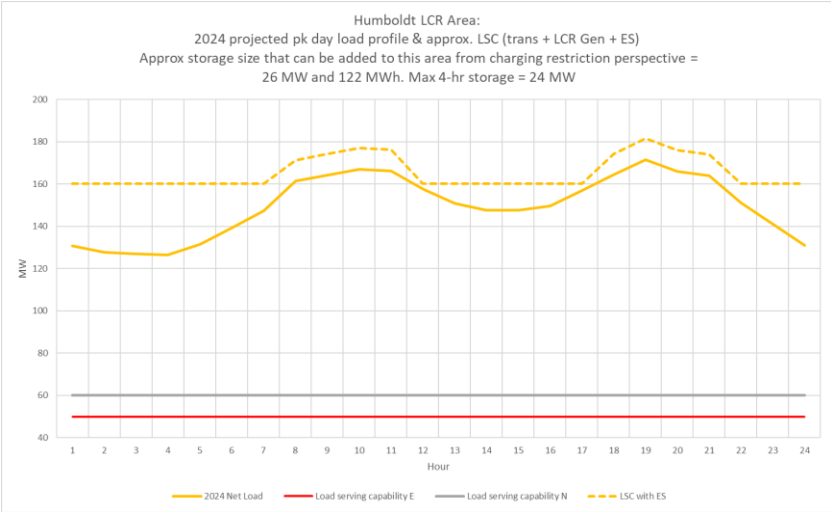
- No new retirements

Humboldt Area: Requirements

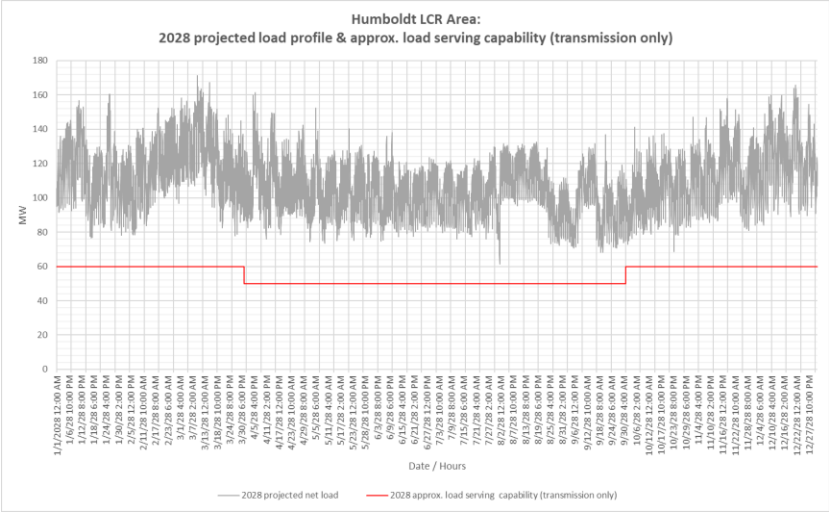
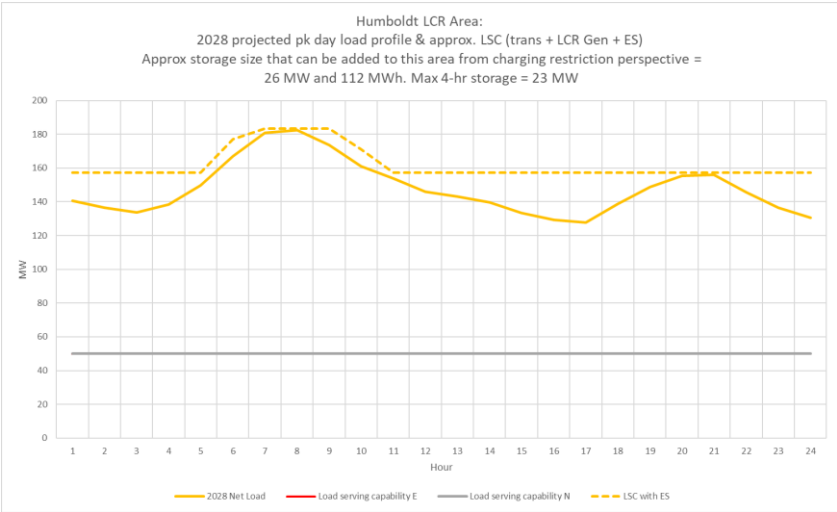


Year	Category	Limiting Facility	Contingency	LCR (MW) (Deficiency)
2024	P6	Thermal overload on Humboldt -Trinity 115 kV line	Cottonwood – Bridgeville 115 kV line + Humboldt – Humboldt Bay 115kV line	133
2028	P6	Thermal overload of Humboldt -Trinity 115 kV	Cottonwood – Bridgeville 115 kV line + Humboldt – Humboldt Bay 115kV line	148

Humboldt Area: Load Profiles - 2024



Humboldt Area: Load Profiles - 2028



Changes between years

Subarea	2023		2024	
	Load	LCR	Load	LCR
Humboldt	175	141	173	133

Subarea	2027		2028	
	Load	LCR	Load	LCR
Humboldt	180	147	182	148

The decrease in 2024 LCR need is mostly due to load forecast decrease.
The increase in 2028 LCR need is mostly due to load forecast increase.

Humboldt Area: Requirements

Limit	Category	Limiting Facility	Contingency	2024 LCR (MW)	2028 LCR (MW)
2024 & 2028	P6	Thermal overload on Humboldt -Trinity 115 kV line	Cottonwood – Bridgeville 115 kV line + Humboldt – Humboldt Bay 115kV line	133	148

Study Year	Existing Generation Capacity Needed (MW)	NQC Deficiency (MW)	Total MW Need
2024	133	0	133
2028	148	0	148