2024 & 2028 Final LCR Study Results Stockton Area

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Stakeholder Call

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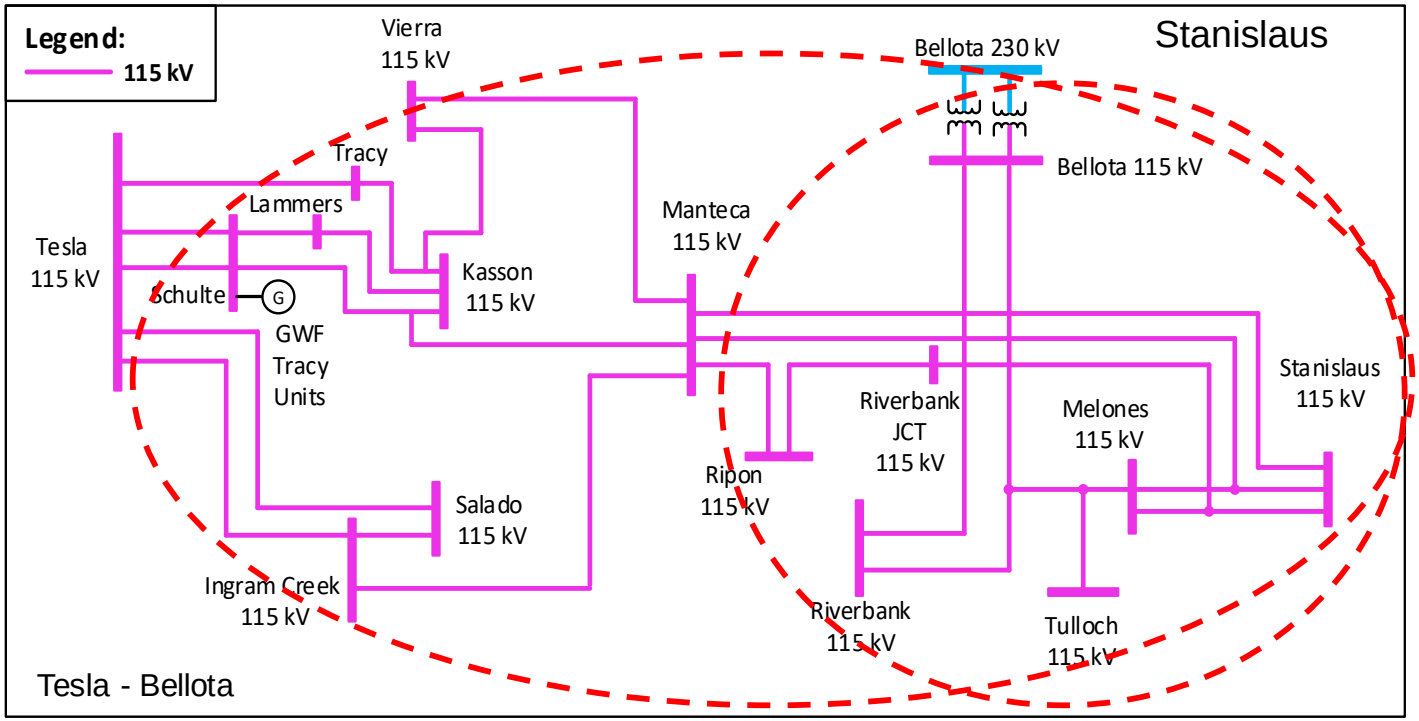
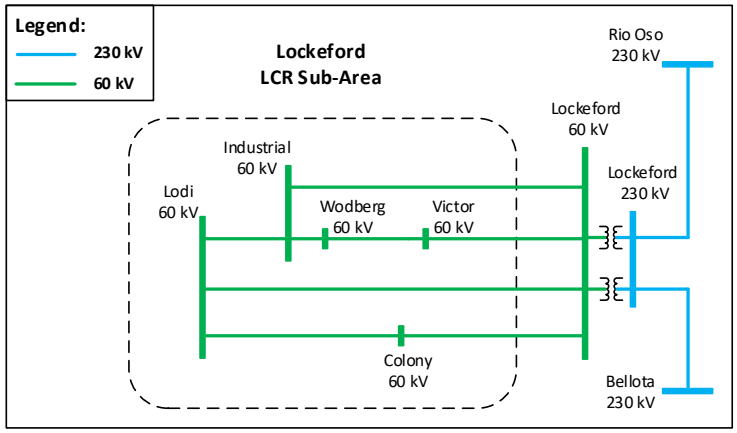
New major transmission projects

Projects	Expected ISD
Mosher Transmission Project	Dec-27
Vierra 115 kV Looping Project	Jun-25
Tesla 230 kV Bus Series Reactor	Aug-23
Lockeford-Lodi Area 230 kV Development	Jul-27
Kasson – Kasson Junction 1 115 kV Line Section Reconductoring Project	Jun-27
Manteca #1 60 kV Line Section Reconductoring Project	Jun-27
Manteca-Ripon-Riverbank-Melones Area 115 kV Line Reconductoring Project	2028
Weber-Mormon Jct Line Section Reconductoring Project	2027
Banta 60 kV Bus Voltage Conversion	2024

Stockton Area Transmission System & LCR Sub-areas





Power plant changes

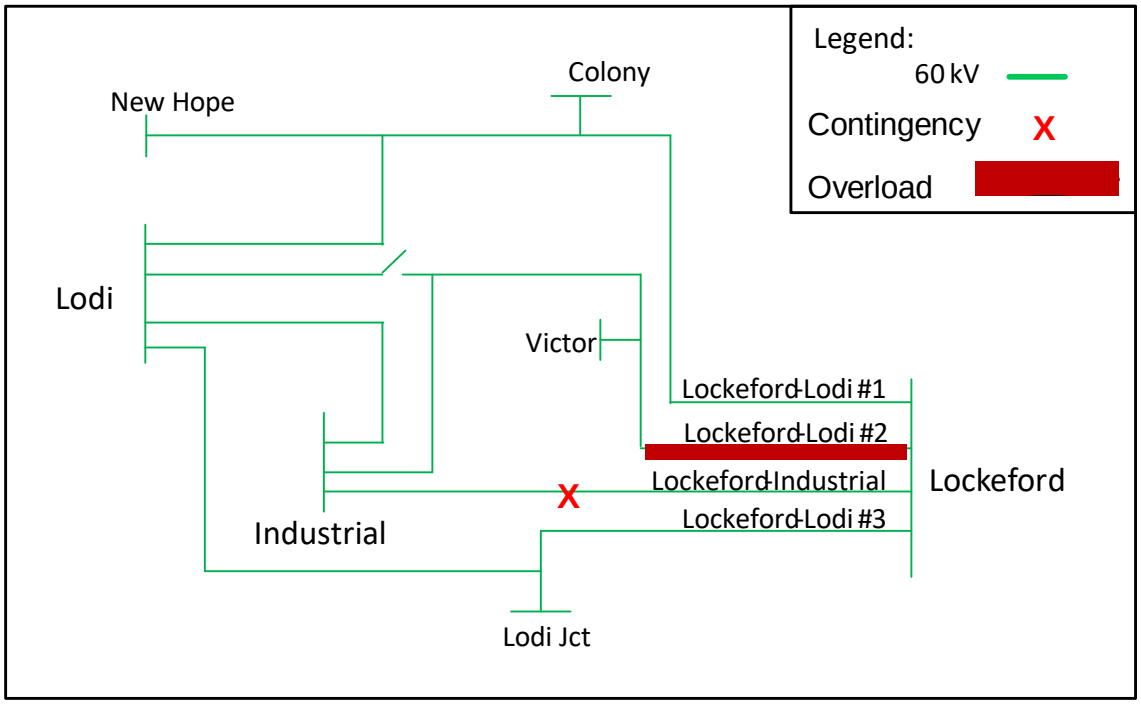
- Addition
  - About 12 MW of Solar PV and BESS at Salado
  - About 132 MW of BESS at Bellota

Stockton Area Overall: Load and Resources

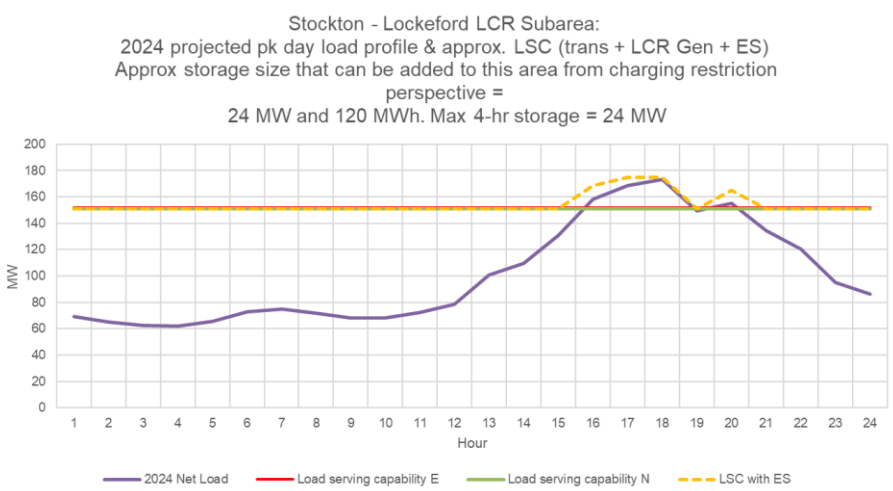
Load (MW)	2024	2028	Generation (MW)	2024	2028
Gross Load	1063	937	Market/Net Seller	454	500
AAEE	-5	-6	Battery	153	152
Behind the meter DG	0	0	MUNI/QF	130	107
Net Load	**1058**	**931**	Solar	7	7
Transmission Losses	22	18	Existing 20-minute Demand Response	6	6
Pumps	0	0	Mothballed	0	0
Load + Losses + Pumps	**1080**	**949**	**Total**	**750**	**772**

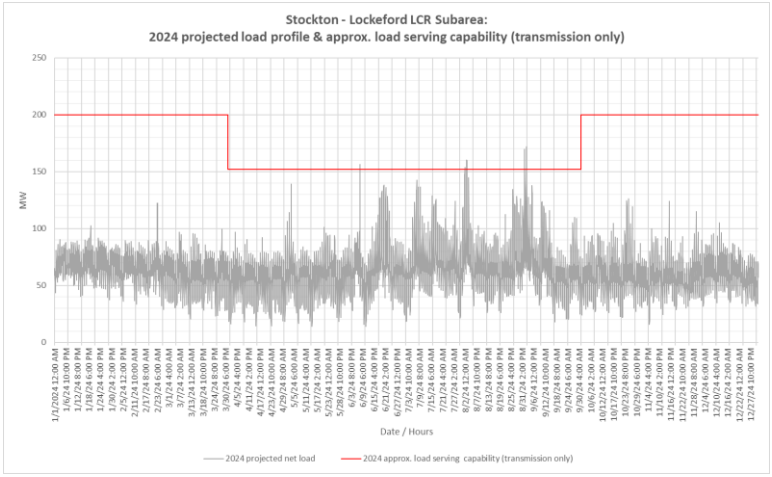
Lockeford Sub-Area : Requirements

Year	Category	Limiting Facility	Contingency	LCR (MW) (Deficiency)
2024	P3	Lockeford – Lodi #2 60 kV	Lockeford-Industrial 60 kV line and Lodi CT	24
2028	No LCR due to implementation of the Lockeford – Lodi 230 kV Area 230 kV Project			No requirements



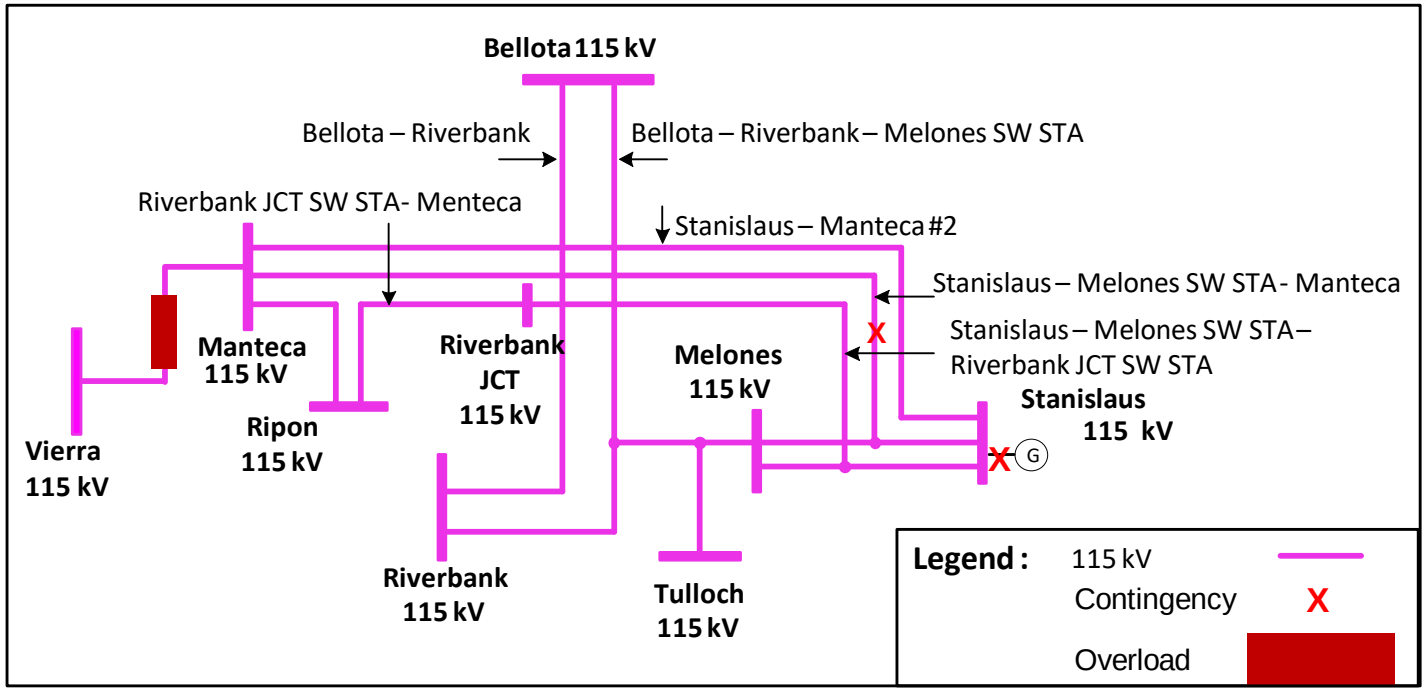
Lockeford Sub-area: Load Profiles





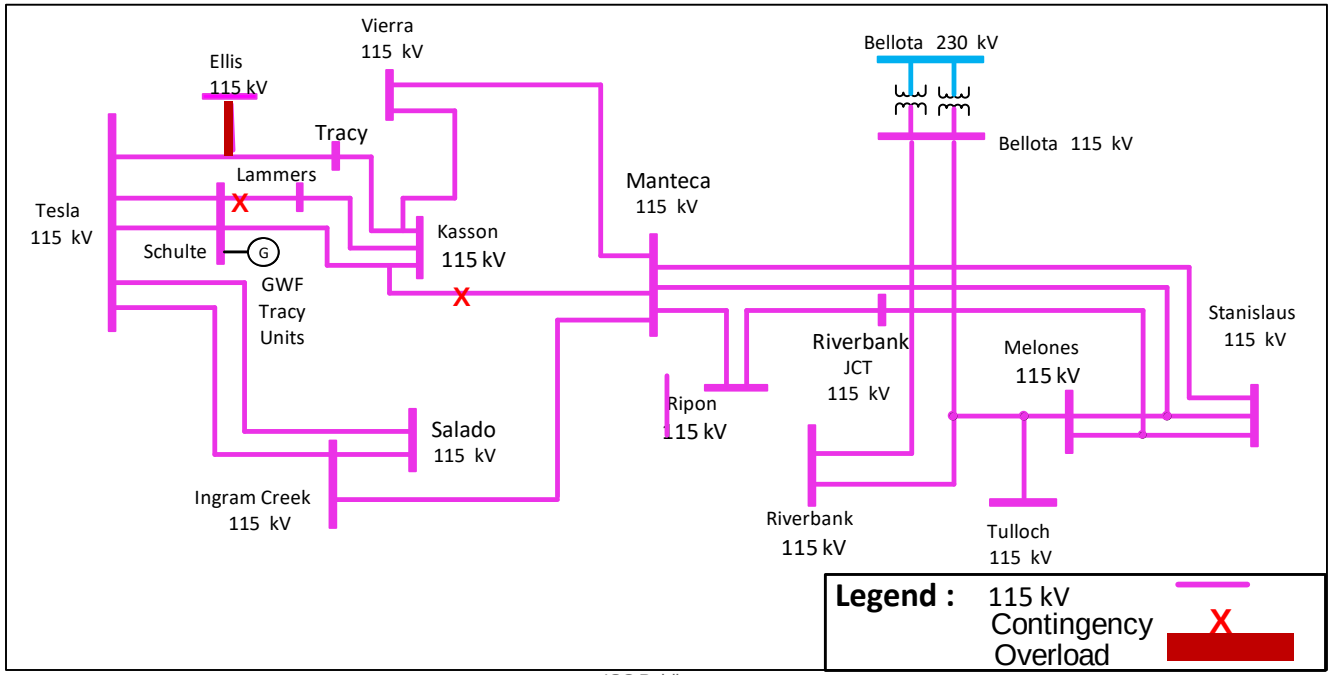
Stanislaus Sub-Area Requirements

Year	Category	Limiting Facility	Contingency	LCR (MW) (Deficiency)
2024	P3	VIERRA 115 kV – MANTECA 115 kV	Bellota-Riverbank-Melones 115 kV line and Stanislaus PH unit	177
2028	P3	VIERRA 115 kV – MANTECA 115 kV	Bellota-Riverbank-Melones 115 kV line and Stanislaus PH unit	186

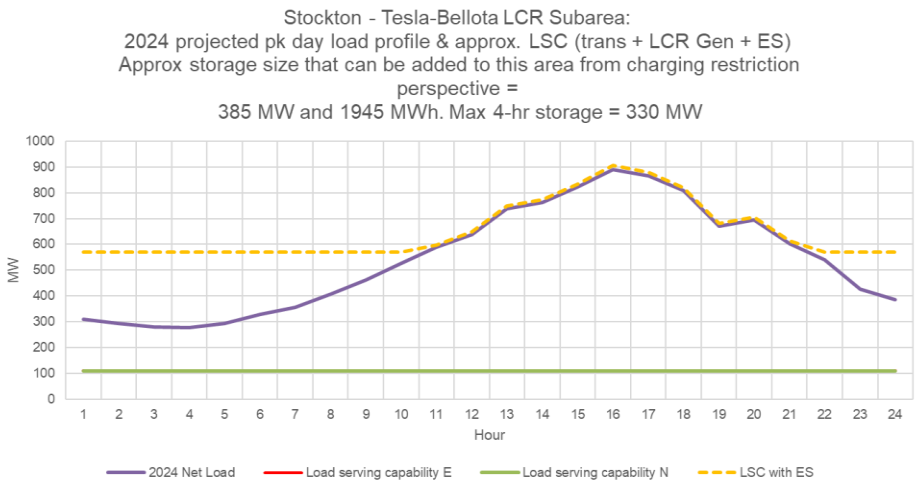


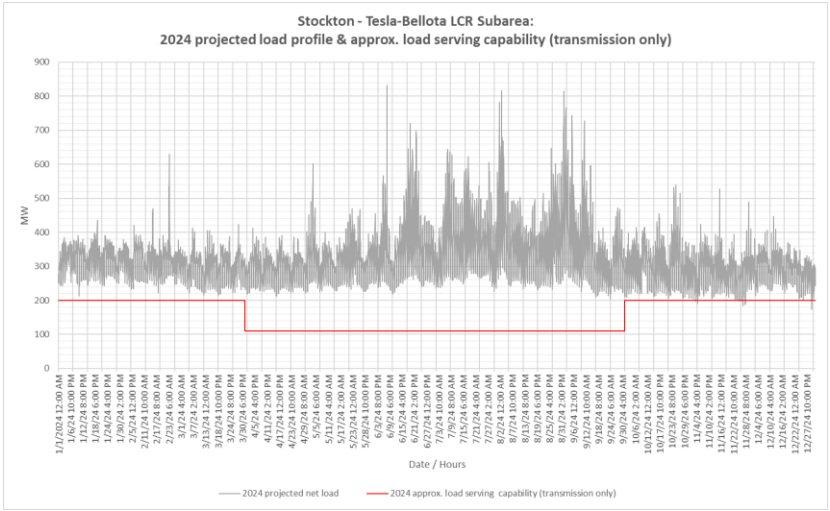
Tesla - Bellota Sub-Area Requirements

Year	Category	Limiting Facility	Contingency	LCR (MW) (Deficiency)
2024	P2-4	Melones–Riverbank-Bellota 115 kV	P2-4:A11:10:_TESLA 115KV - SECTION 2D & 1D	706 (112 NQC/119 Peak)
2024	P6	Tesla – Tracy 115 kV	Schulte - Lammers 115 kV Line and Schulte - Kasson - Manteca 115 kV Line	938 (548 NQC/555 Peak)
Total LCR Need in 2024				1274 (548 NQC/555 Peak)



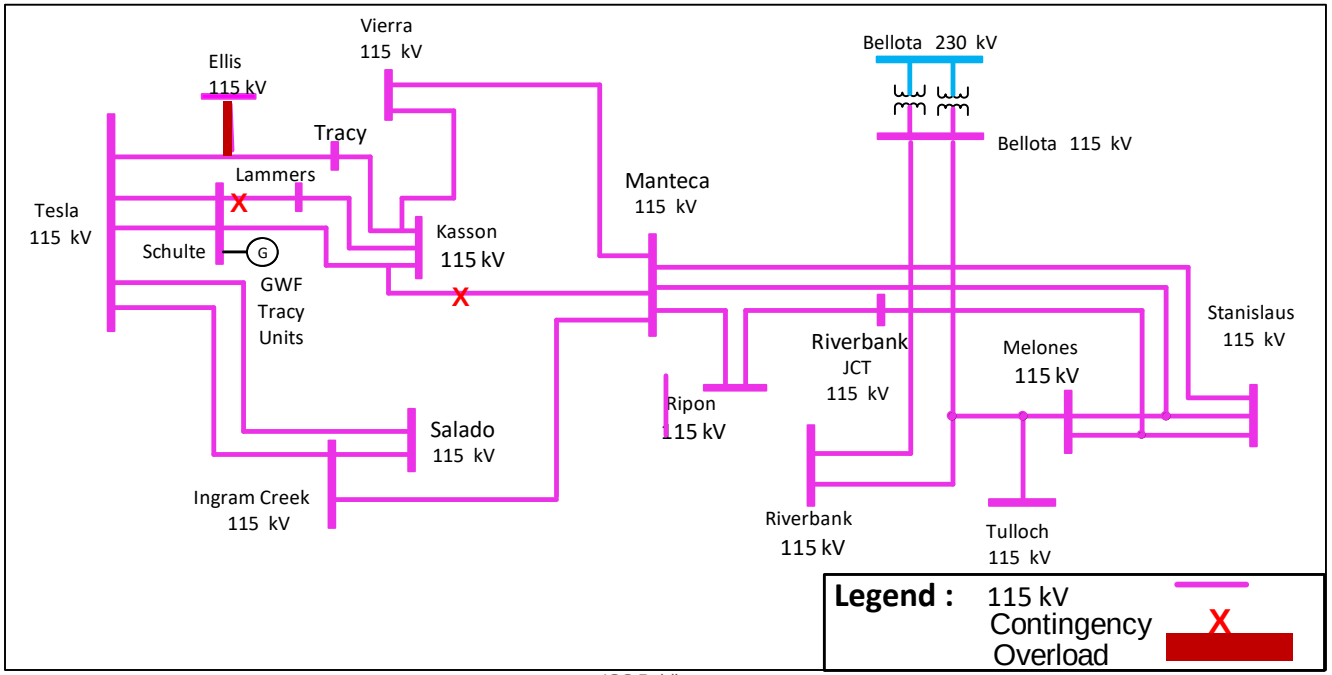
Tesla - Bellota Sub-area: Load Profiles



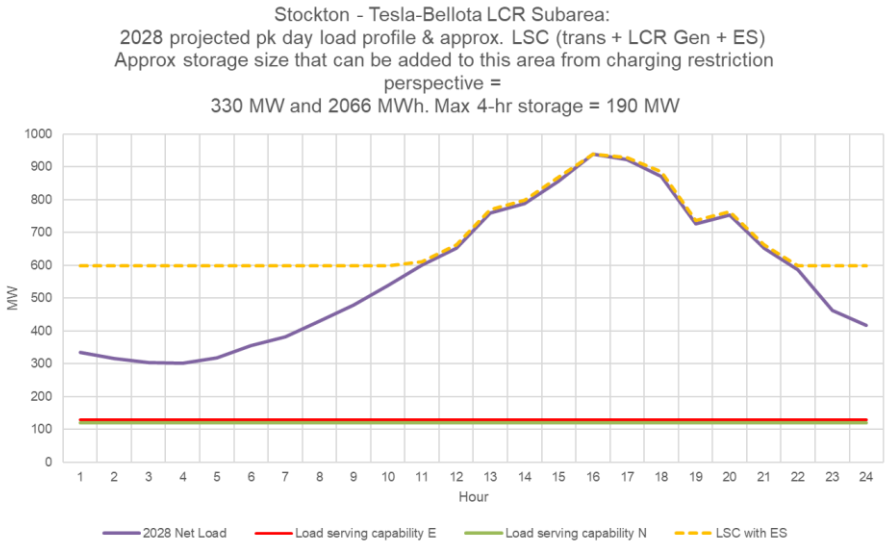


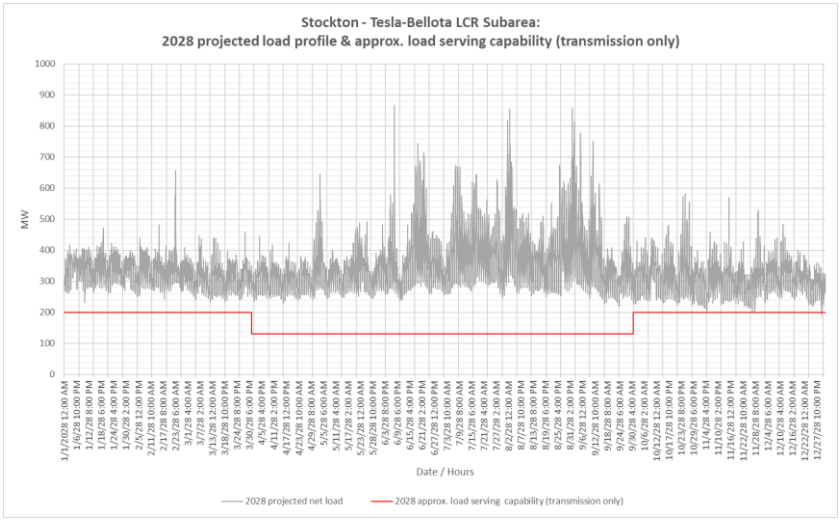
Tesla - Bellota Sub-Area Requirements

Year	Category	Limiting Facility	Contingency	LCR (MW) (Deficiency)
2028	P2-4	Melones–Riverbank-Bellota 115 kV	P2-4:A11:10:_TESLA 115KV - SECTION 2D & 1D	735 (95 NQC/102 Peak)
2028	P6	Tesla – Tracy 115 kV	Schulte - Lammers 115 kV Line and Schulte - Kasson - Manteca 115 kV Line	718 (282 NQC/289 Peak)
Total LCR Need in 2028				1054 (282 NQC/289 Peak)



Tesla - Bellota Sub-area: Load Profiles





Changes from 2023 to 2024

Sub-area	2023		2024	
	Load	LCR	Load	LCR
Lockeford	181	27 (3)	175	24
Stanislaus	N/A	155	N/A	177
Tesla - Bellota	909	965 (410)	888	1274 (548)
Total	1090	992 (413)	1063	1298 (548)

- The load forecast has slightly decreased and the LCR need has increased mainly due to new resources available in the area.

- N/A=Flow-through area. No defined load pocket or not an LCR sub-area anymore

Changes from 2027 to 2028

Sub-area	2027		2028	
	Load	LCR	Load	LCR
Lockeford	196	0	N/A	N/A
Stanislaus	N/A	177	N/A	185
Tesla - Bellota	951	953 (404)	937	1054 (282)
Total	1147	953 (404)	937	1054 (282)

- There is no a LCR requirement in Lockeford sub-area for 2028 after the implementation of the Lockeford – Lodi 230 kV Area 230 kV Project
- The Vierra Loop-in project and Tesla 115 kV Bus upgrade will address some of the LCR requirements in Tesla- Bellota Area
- The load forecast has slightly decreased and the LCR need has increased mainly due to new resources available in the area.

- N/A=Flow-through area. No defined load pocket or not an LCR sub-area anymore

Stockton Area Total LCR Need

Study Year	Existing Generation Capacity Needed (MW)	NQC Deficiency (MW)	Total MW Need
2024	750	548	1298
2028	772	282	1054