



# 2022 & 2026 Draft LCR Study Results Stockton Area

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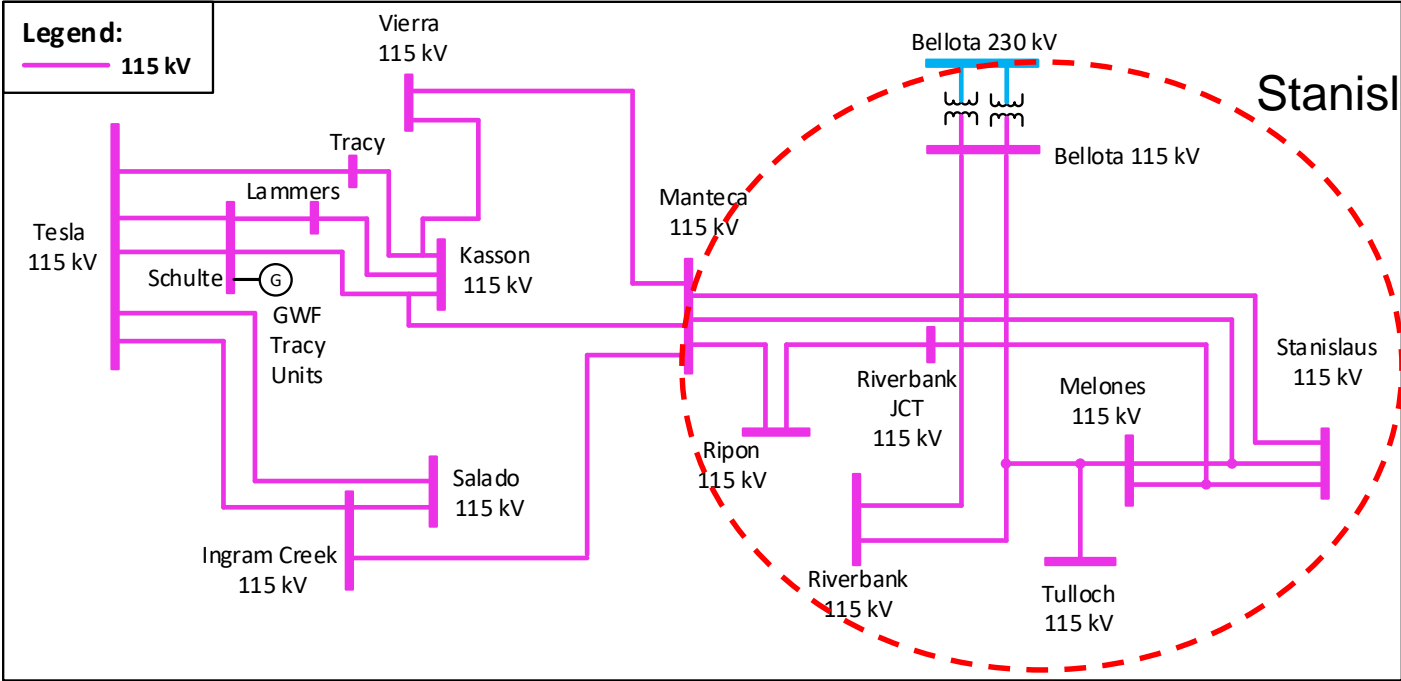
Regional Transmission Engineer Lead

Stakeholder Call

March 11, 2021

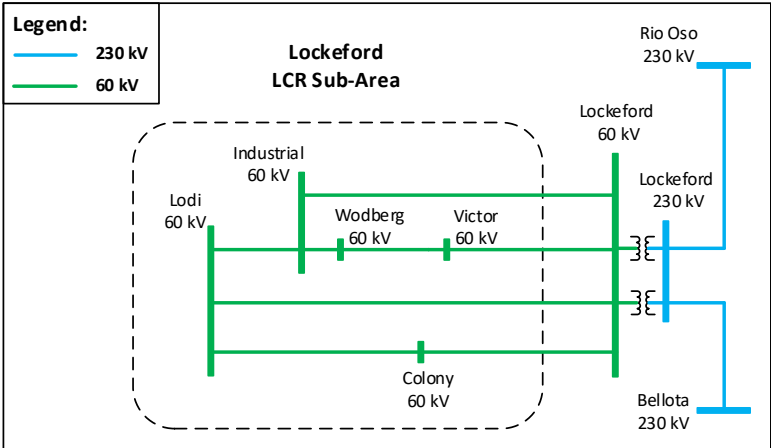
# Stockton Area Transmission System & LCR Sub-areas

Tesla - Bellota



Stanislaus

Lockeford



# New major transmission projects

Project Name	Expected ISD
Year 2022	
None	
Year 2026	
None	

# Power plant changes

## Additions:

- No new resource addition

## Retirements:

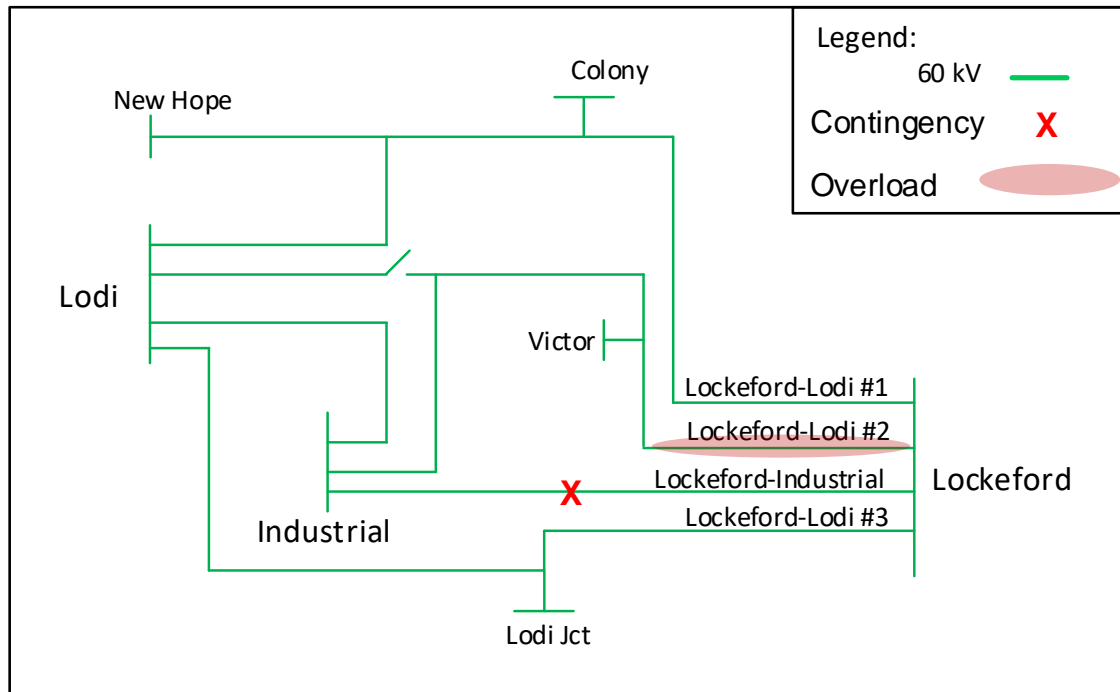
- No new retirements

# Stockton Area Overall: Load and Resources

Load (MW)	2022	2026	Generation (MW)	2022	2026
Gross Load	1,015	1,120	Market/ Net Seller/ Battery	445	445
AAEE	-7	-13	Solar	11	11
Behind the meter DG	0	-5	Wind	0	0
<b>Net Load</b>	<b>1,008</b>	<b>1,109</b>	Muni	139	139
Transmission Losses	19	23	QF	0	0
Pumps	0	0	Future preferred resource and energy storage	0	0
<b>Load + Losses + Pumps</b>	<b>1,027</b>	<b>1,125</b>	<b>Total Qualifying Capacity</b>	<b>596</b>	<b>596</b>

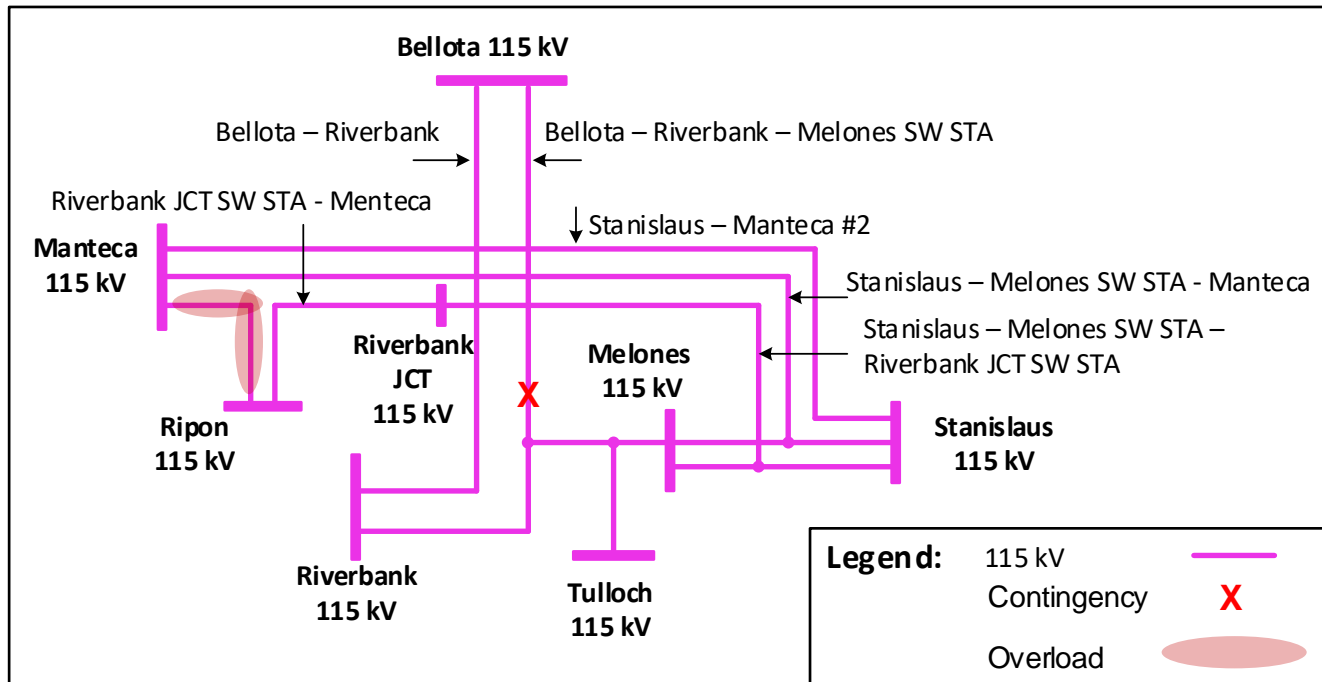
# Lockeford Sub-Area : Requirements

Year	Category	Limiting Facility	Contingency	LCR (MW) (Deficiency)
2022	P3	Lockeford – Lodi #2 60 kV	Lockeford-Industrial 60 kV line and Lodi CT	No requirements
2026	P3	Lockeford – Lodi #2 60 kV	Lockeford-Industrial 60 kV line and Lodi CT	27 (3)



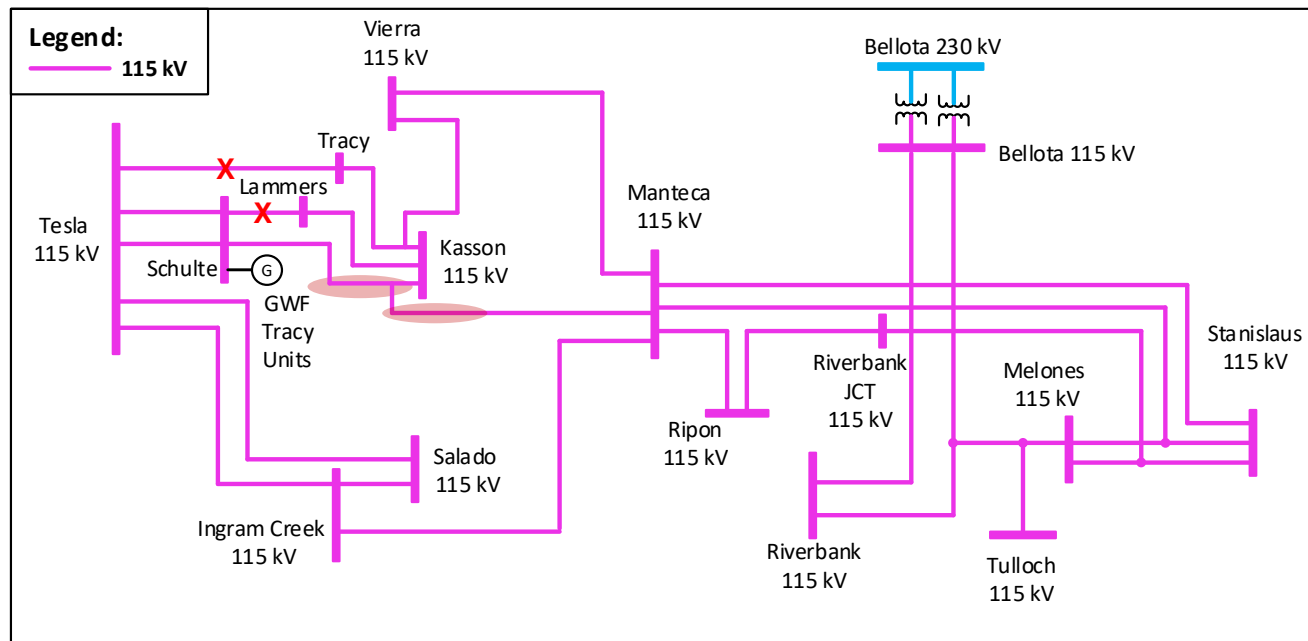
# Stanislaus Sub-Area : Requirements

Year	Category	Limiting Facility	Contingency	LCR (MW) (Deficiency)
2022	P3	Manteca - Ripon 115 kV Line	Bellota-Riverbank-Melones 115 kV line and Stanislaus PH unit	196
2026	P3	Manteca - Ripon 115 kV Line	Bellota-Riverbank-Melones 115 kV line and Stanislaus PH unit	239 (27)



# Tesla - Bellota Sub-Area : Requirements (2022)

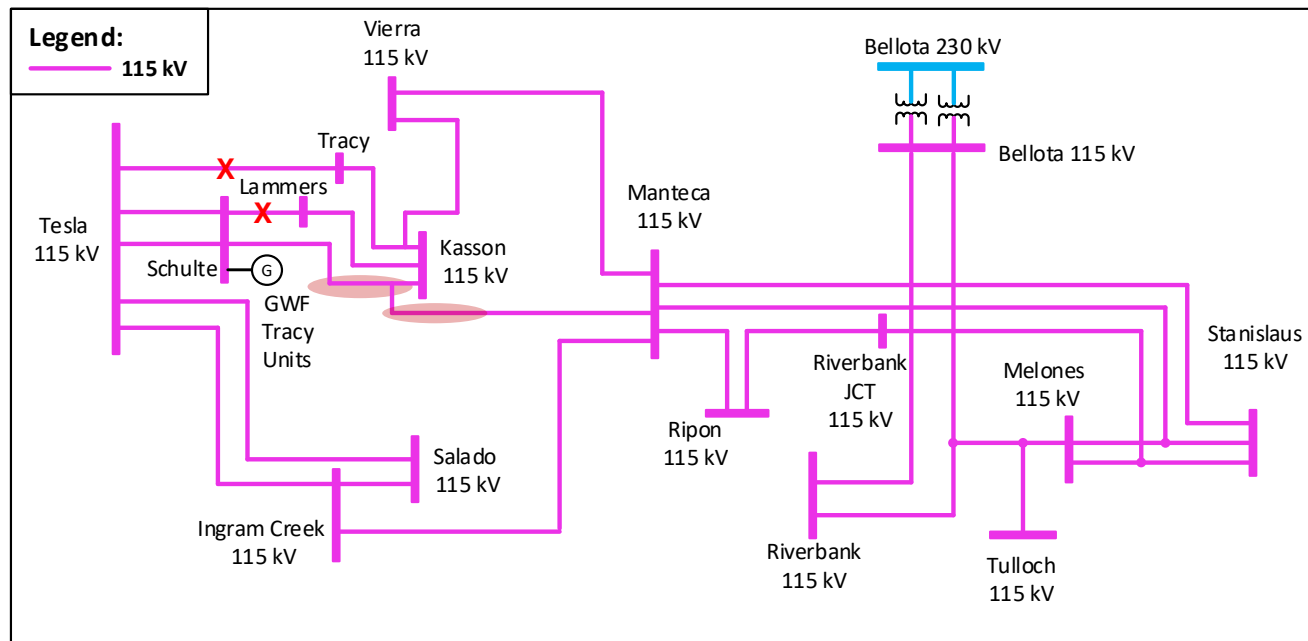
Year	Category	Limiting Facility	Contingency	LCR (MW) (Deficiency)
2022	P2-4	Stanislaus – Melones – Riverbank Jct line	Tesla 115 kV bus	642 (70 NQC / 81 Peak)
2022	P6	Schulte-Kasson- Manteca 115 kV line	Schulte – Lammers and Tesla – Tracy 115 kV lines	1,063 (801 NQC / 812 Peak)
Total LCR Need in 2022				1,373 (801 NQC / 812 Peak)





# Tesla - Bellota Sub-Area : Requirements (2026)

Year	Category	Limiting Facility	Contingency	LCR (MW) (Deficiency)
2026	P2-4	Stanislaus – Melones – Riverbank Jct line	Tesla 115 kV bus	720 (148 NQC / 159 Peak)
2026	P6	Schulte-Kasson- Manteca 115 kV line	Schulte – Lammers and Tesla – Tracy 115 kV lines	1,332 (1,070 NQC / 1,081 Peak)
Total LCR Need in 2026				1,642 (1,070 NQC / 1,081 Peak)



## Changes from 2021 to 2022

Sub-area	2021		2022	
	Load	LCR	Load	LCR
Lockeford	194	36 (12)	174	0
Stanislaus	N/A	205	N/A	196
Tesla - Bellota	898	1,219 (658)	853	1,373 (801)
Total	1,092	1,255 (670)	1,027	1,373 (801)

- The LCR decreases in Lockeford sub-area is due to lower load forecast.
- Although load forecast in the Tesla – Bellota sub-area decreased, but the LCR requirement has increased due to the lower line rating.

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

# Changes from 2025 to 2026

Sub-area	2025		2026	
	Load	LCR	Load	LCR
Lockeford	198	N/A	180	27 (3)
Stanislaus	N/A	213 (1)	N/A	239 (27)
Tesla - Bellota	950	741 (134)	945	1,642 (1,070)
Total	1,148	741 (134)	1,125	1,669 (1,073)

- The ISD of the Lockeford – Lodi 230 kV project is now expected to be after 2026 and therefore the Lockeford will be an LCR sub-area in 2026.
- The ISD of the Vierra Looping in project that was the reason for the drop in the LCR requirement in the area is now expected to be after 2026.

*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)	Deficiency (MW)	Total MW Need
2022	572	801	1,373
2026	596	1,073	1,669