

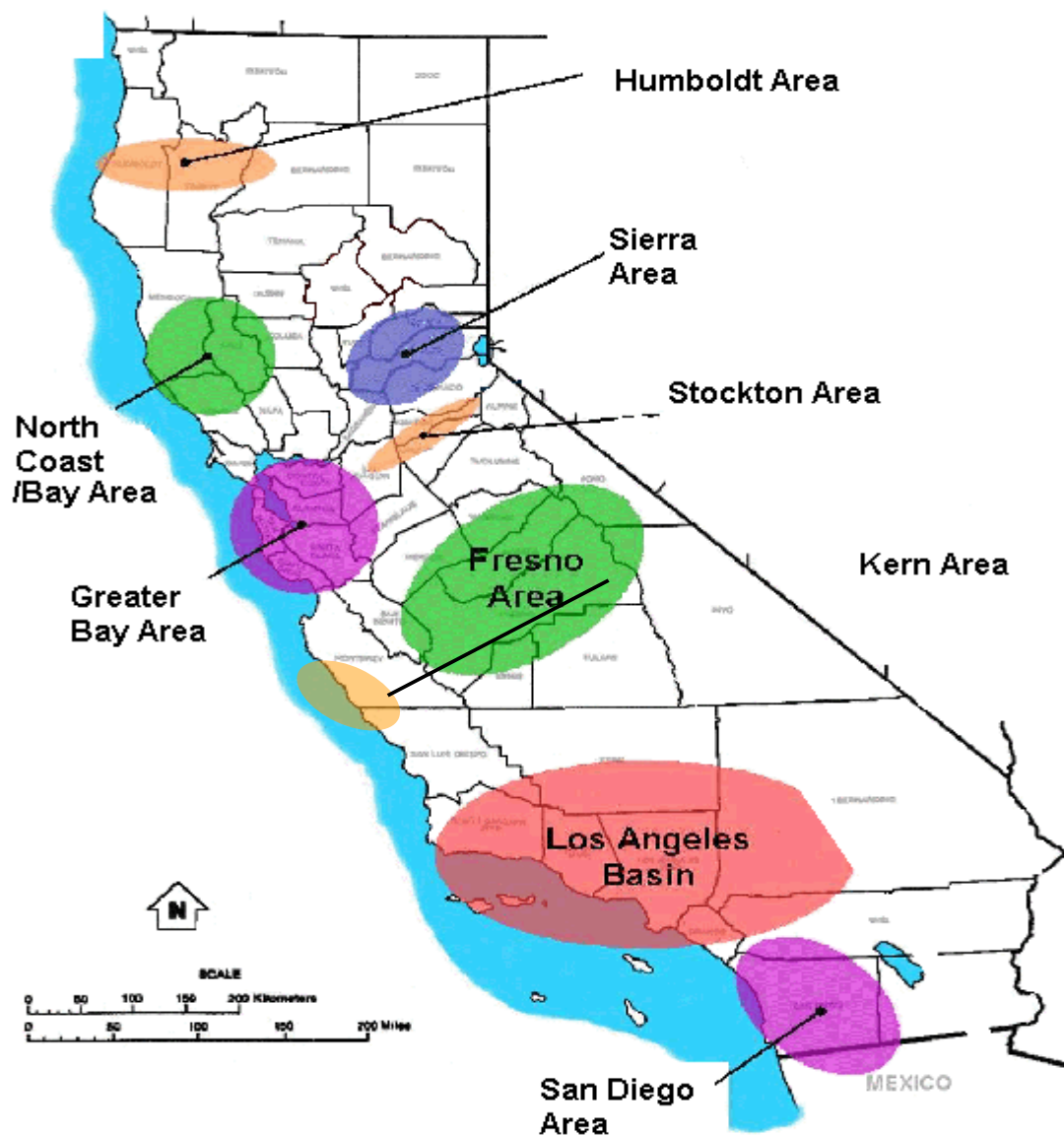
Year 2007 LCR Study

Stockton Area in PG&E System

Summary of Findings

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Northern Cal. LCR Areas





Sub-areas Defined for the Stockton Area

- 1. Tesla-Bellota Sub-area**
- 2. Lockeford Sub-area**
- 3. Stagg Sub-area (New for 2007)**

Stockton Area Load and Resources (MW)

2007

Load = 1241

Transmission Losses = 26

Total Load = **1267**

Market Generation = 257

Muni Generation = 200

QF Generation = 114

Total Qualifying Capacity = **571**

Critical Stockton Area Contingencies

Tesla-Bellota Sub-area

Tesla-Bellota Sub-area

Contingency: Tesla-Tracy 115 kV line and Tesla-Schulte 115 kV line.

LCR: 428 MW (includes 235 MW of QF and Muni generation).

Limiting component: Thermal overload on the Tesla-AEC section of the Tesla-Kasson-Manteca 115 kV line.

Tesla-Bellota Sub-area – Category B

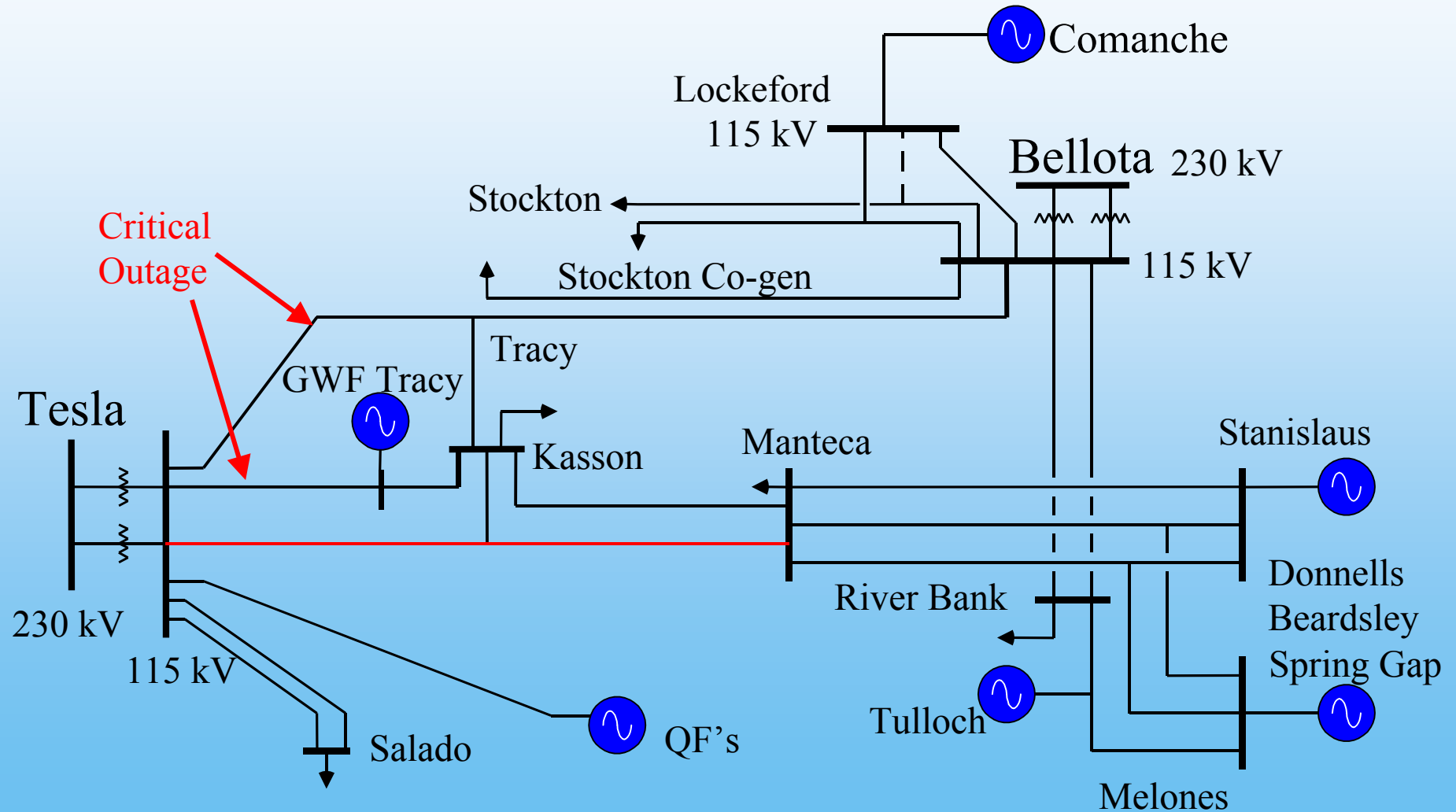
Contingency: Tesla-Tracy 115 kV line and the loss of Stanis unit #1.

LCR: 348 MW (includes 235 MW of QF and Muni generation).

Limiting component: Thermal overload on the Tesla-AEC 1 section of the Tesla-GWF Tracy 115 kV line.



Tesla-Bellota 115 kV Area Transmission



Critical Stockton Area Contingencies Lockeford Sub-area

- Contingency: Lockeford-Industrial 60 kV line and Lockeford-Lodi #2 60 kV line.
- LCR: 81 MW (including 28 MW of QF and Muni generation as well as a deficiency of 53 MW).
- Limiting component: Thermal overload on the Lockeford-Colony section of the Lockeford-Lodi #2 60 kV line.

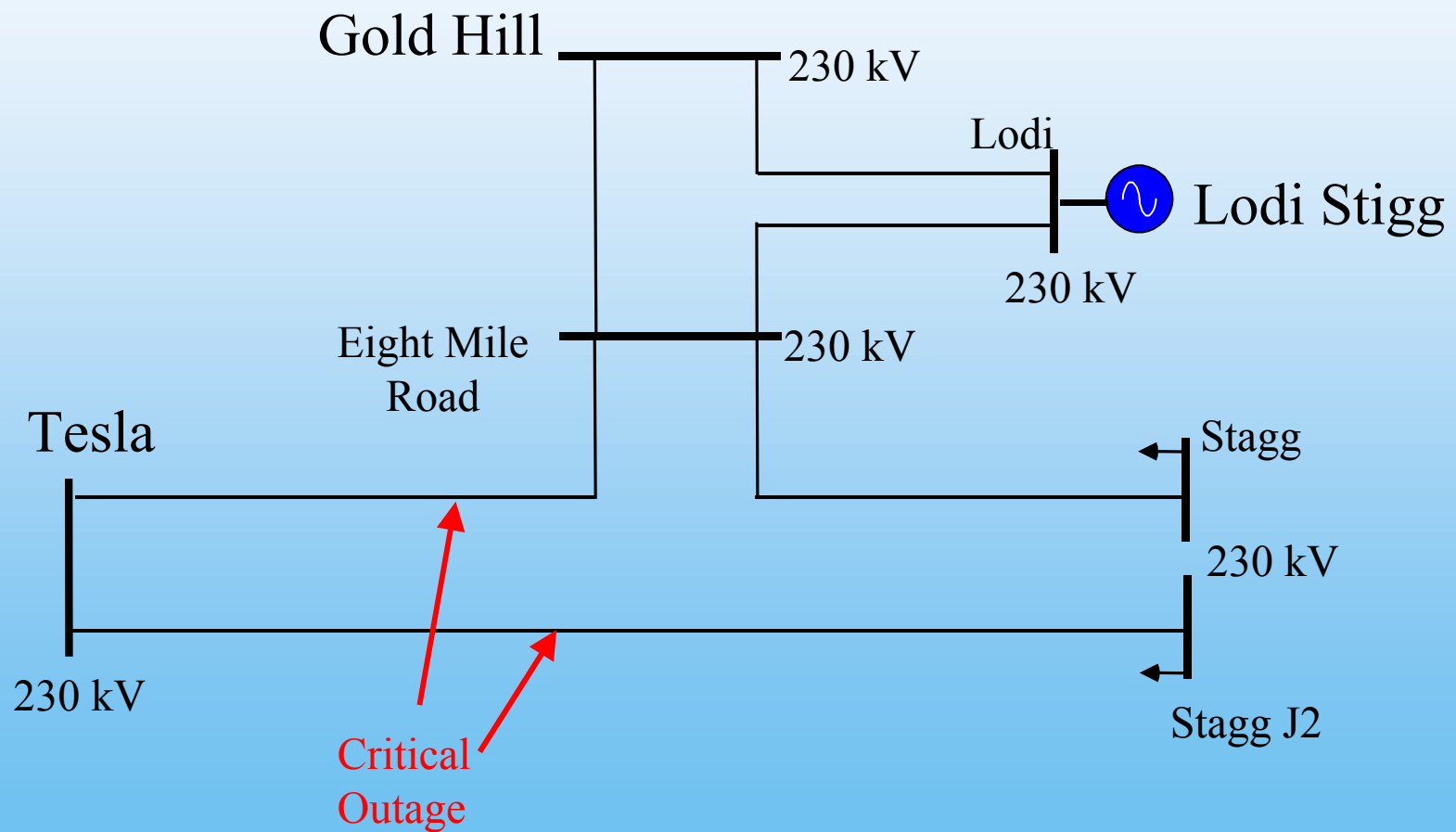
Critical Stockton Area Contingencies

Stagg Sub-area

- Contingency: Tesla-Stagg 230 kV line and Tesla-Eight Mile 230 kV line.
- LCR: 50 MW (Lodi Stagg generating unit).
- Post-contingency steady-state voltages less than 0.90 p.u. at Stagg, Eight Mile Road, and Lodi 230 kV busses.



Stagg 230 kV Area Transmission



Critical Stockton Area Contingencies Aggregate

	QF (MW)	Muni (MW)	Market (MW)	Max. Qualifying Capacity (MW)
Available generation	114	200	257	571

	Existing Generation Capacity Needed (MW)	Deficiency (MW)	Total MW Requirement
Category B (Single)	348	0	348
Category C (Multiple)	506	53	559

Each unit is only counted once, regardless in how many sub-areas it is needed.

In order to come up with an aggregate deficiency, where applicable the deficiencies in each smaller sub-area has been accounted for (based on their effectiveness factors) toward the deficiency of a much larger sub-area.



Changes since the 2006 LCR study

2006 Study

1 in 10 load used for the 2006 LCR Study for Stockton = 924 MW.

2007 Study

1 in 10 load used for the 2007 LCR Study for Stockton = 1,267 MW.

New Stagg pocket defined for the 2007 LCR study (New pocket adds approx. 330 MW of load).



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Stakeholder Comments