2016 and 2020 Draft LCR Study Results – Humboldt and North Coast/ North Bay Areas

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Stakeholder Meeting

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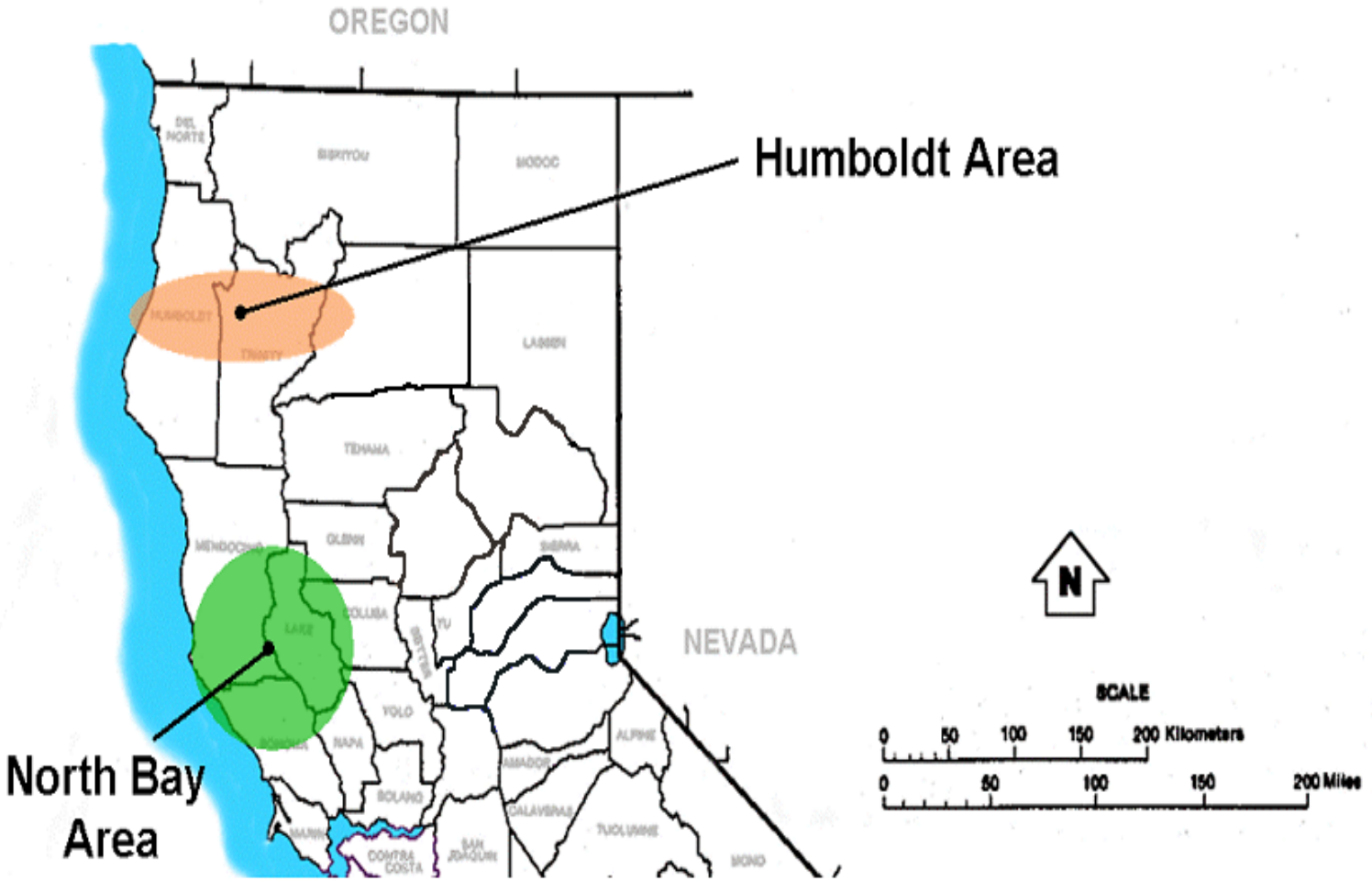
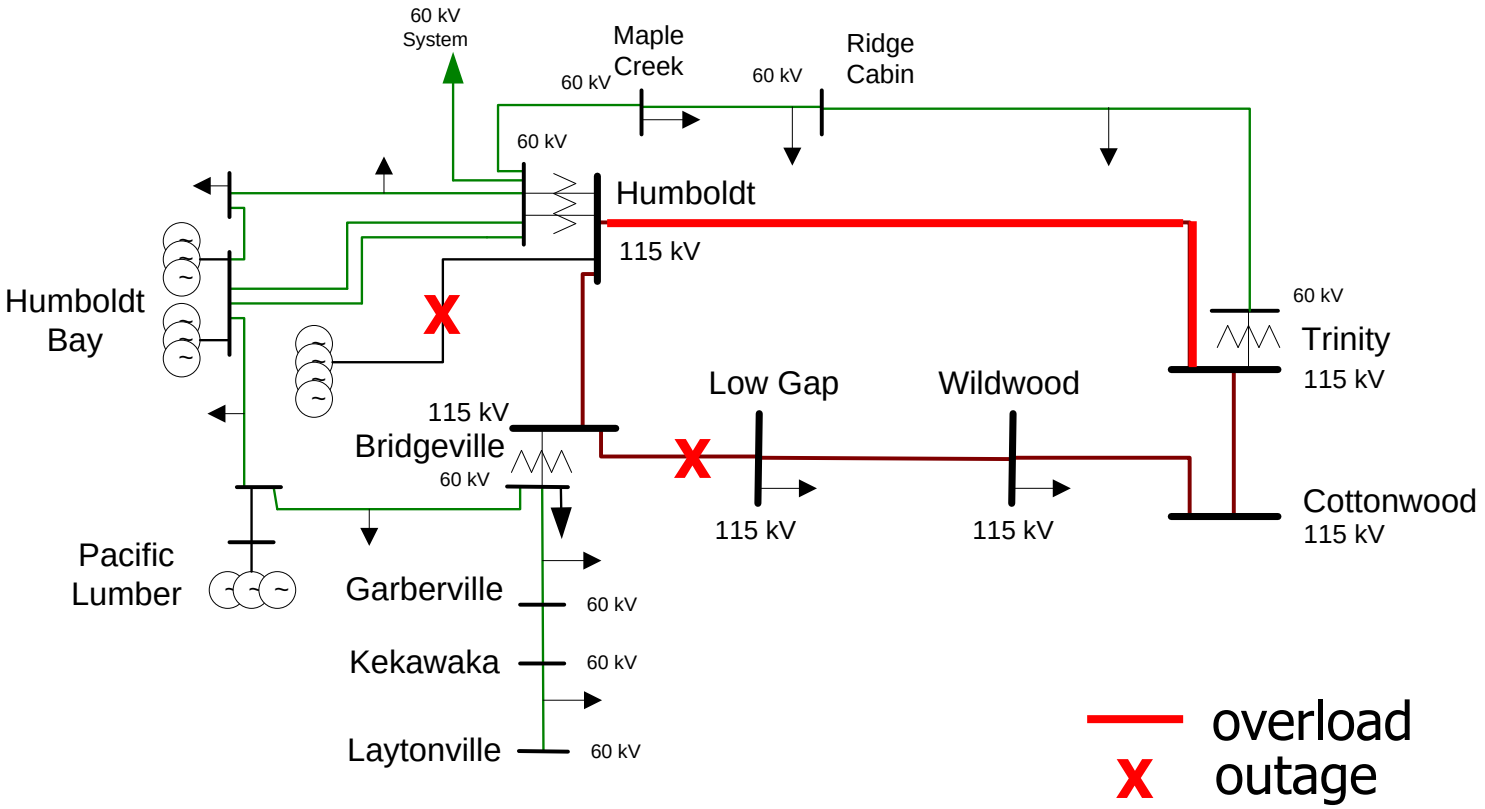
Humboldt and North Coast/North Bay



Humboldt Load and Resources (MW)

		2016	2020
Load	=	190	203
AAEE	=	-4	-12
Transmission Losses	=	10	9
Total Load	=	**196**	**200**
Market Generation	=	173	173
QF/Self-Gen Generation	=	36	36
Total Qualifying Capacity	=	**209**	**209**

Critical Contingencies
Humboldt Area



Critical Contingencies Humboldt Area

Humboldt Overall – Category B Winter Peak

Contingency: Cottonwood-Bridgeville 115 kV line + one Humboldt PP units out of service
Limiting component: Thermal overload on Humboldt -Trinity 115 kV line
2016 LCR Need: 118 MW (including 36 MW of QF/Self generation)
2020 LCR Need: 121 MW (including 36 MW of QF/Self generation)

Humboldt Overall – Category C Winter Peak

Contingency: Cottonwood – Bridgeville 115 kV line + 115 kV Gen tie to the Humboldt Bay Units
Limiting component: Thermal overload on Humboldt - Trinity 115 kV line
2016 LCR need: 167 MW (including 36 MW of QF/Self generation)
2020 LCR need: 170 MW (including 36 MW of QF/Self generation)

Changes

Since last year:

1) Load went up by 1 MW in 2016 compared with 2015
2) LCR need increased by 1 MW in 2016 compared to 2015
3) Load went down by 4 MW in 2020 compared with 2019
4) Long-Term LCR decreased by 3 MW in 2020 compared to 2019

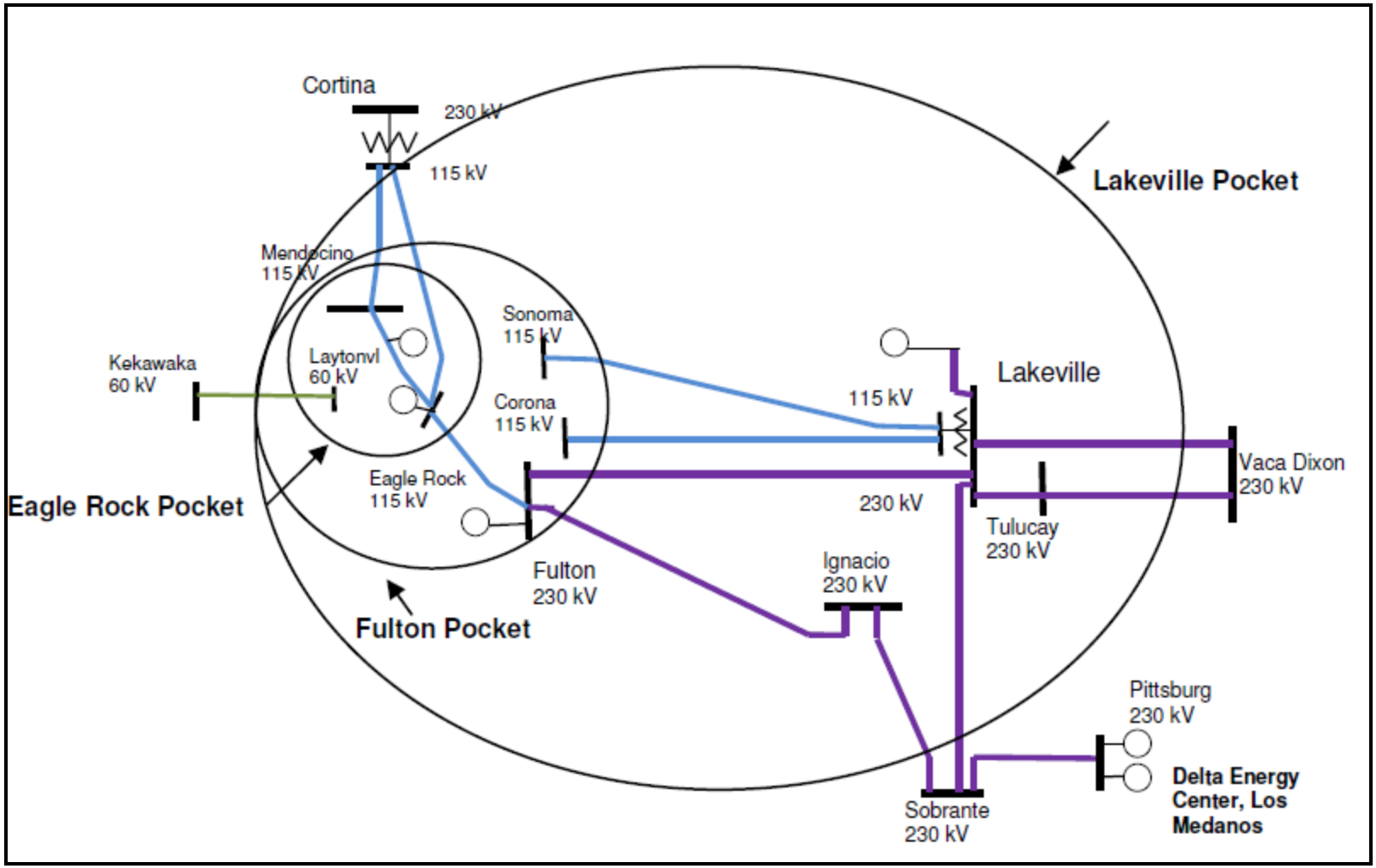
Your comments and questions are welcomed

Please send written comments to:
RegionalTransmission@caiso.com

North Coast/North Bay Load and Resources (MW)

		2016	2020
Load	=	1425	1511
AAEE	=	-28	-73
Transmission Losses	=	36	38
Total Load	=	**1433**	**1476**
Market Generation	=	739	739
Wind Generation	=	0	0
Muni Generation	=	112	112
QF Generation	=	16	16
Total Qualifying Capacity	=	**867**	**867**

North Coast and North Bay



Eagle Rock Sub-Area

Eagle Rock Sub-area – Category B

Contingency: Cortina-Mendocino 115 kV line, with Geyser #11 unit out

2016 LCR need: 176 MW (includes 1 MW of QF/Muni generation)

2020 LCR need: 202 MW (includes 1 MW of QF/Muni generation)

Limiting component: Thermal overload on Eagle Rock-Cortina 115 kV line

Eagle Rock Sub-area – Category C

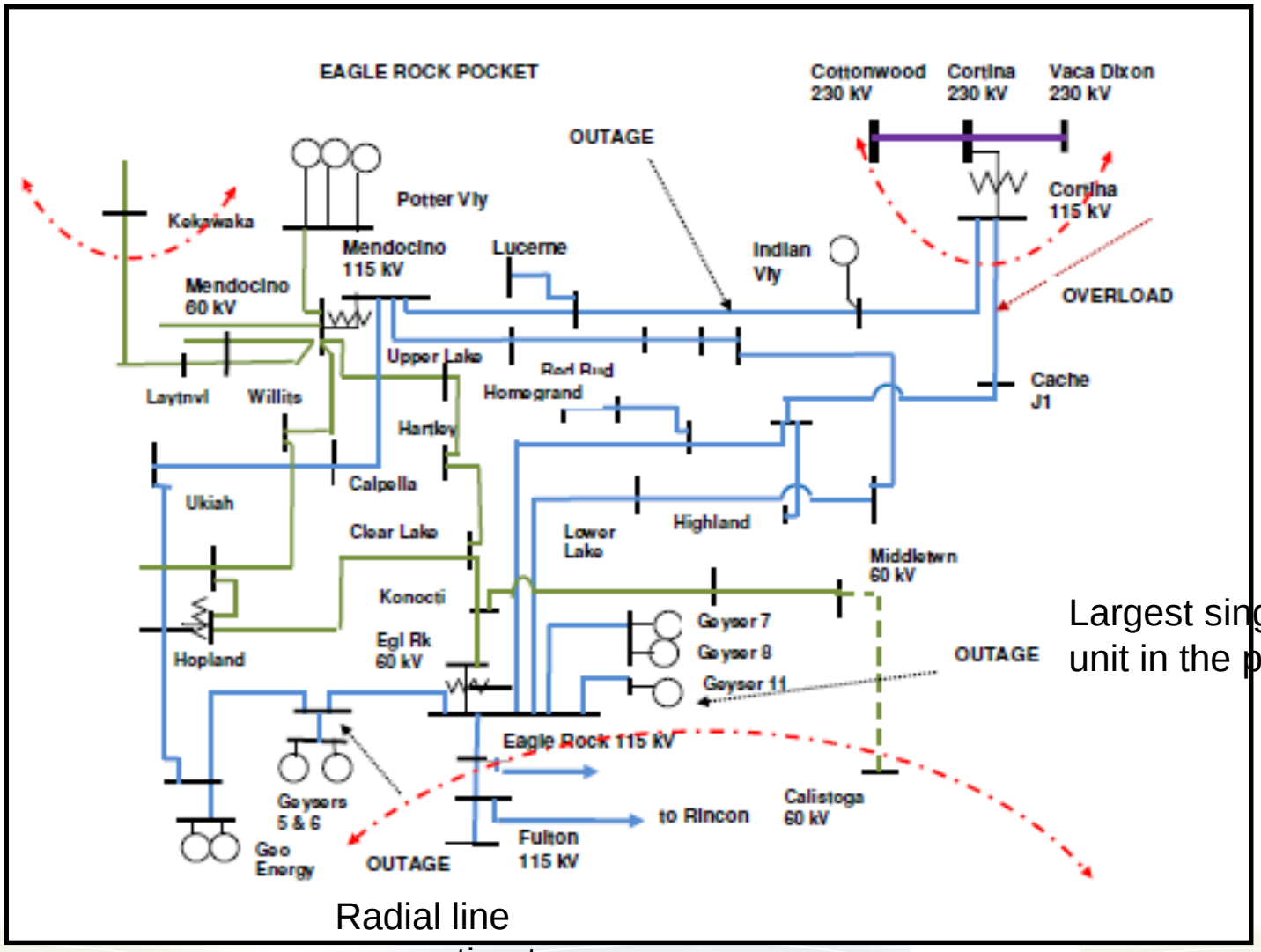
Contingency: Cortina-Mendocino and Geysers #3-Geysers #5 115 kV lines

2016 LCR need: 192 MW (includes 1 MW of QF/Muni generation)

2020 LCR need: 217 MW (includes 1 MW of QF/Muni generation)

Limiting component: Thermal overload on Eagle Rock-Cortina 115 kV line

Eagle Rock Sub-Area



Largest single unit in the pocket

Radial line connecting two units

Fulton Sub-area

Fulton Sub-area – Category B

No requirement.

Fulton Sub-area – Category C

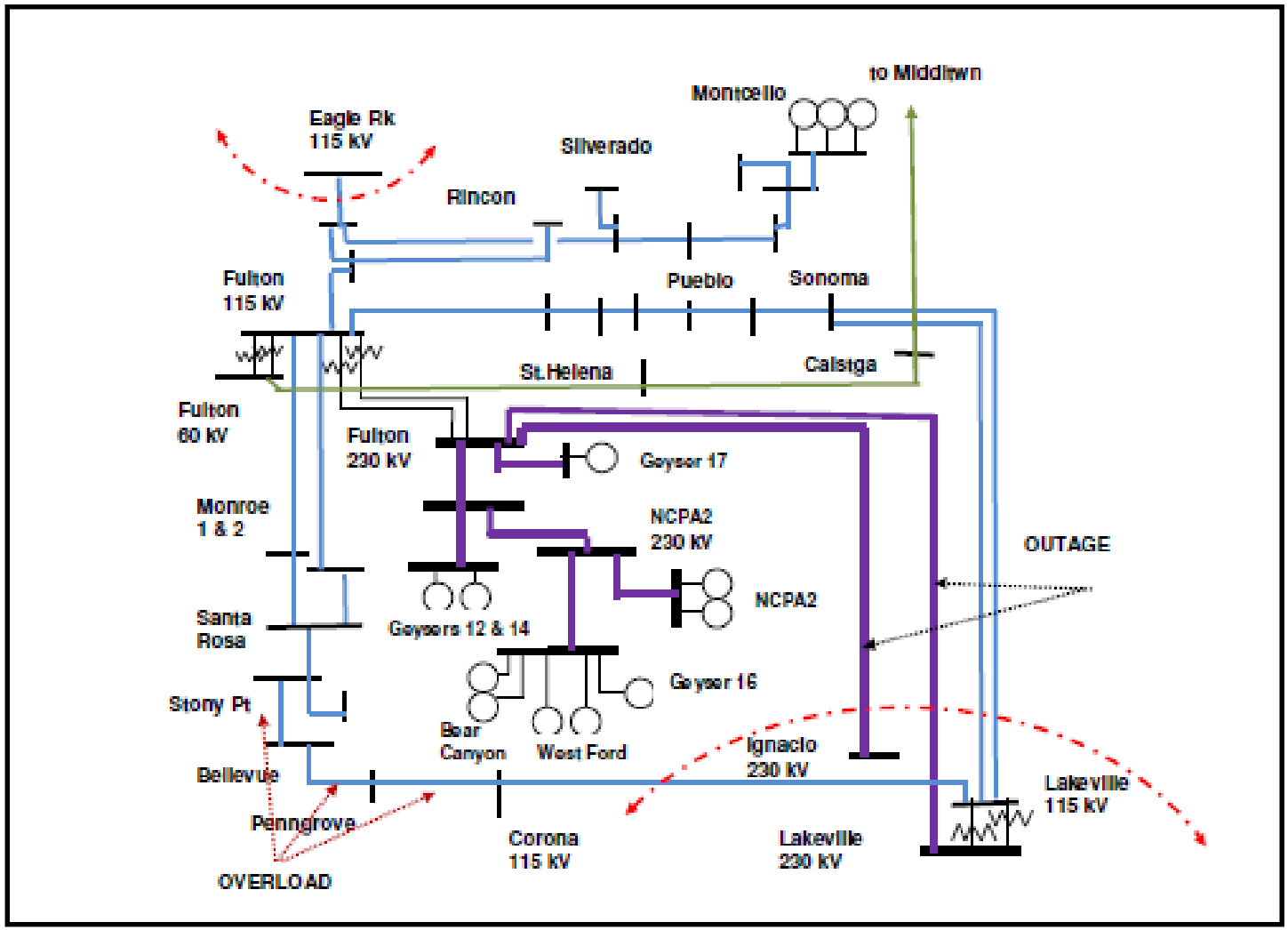
Contingency: Fulton-Lakeville and Fulton-Ignacio 230 kV lines

2016 LCR need: 282 MW (includes 69 MW of QF/Muni generation)

2020 LCR need: 303 MW (includes 69 MW of QF/Muni generation)

Limiting component: Thermal overload on Santa Rosa-Corona 115 kV line

Fulton Sub-area



Lakeville Sub-area

Lakeville Sub-area (NC/NB Overall) – Category B

Contingency: Vaca Dixon-Tulucay 230 kV line with Delta Energy Center power plant out of service

2016 LCR need: 611 MW (includes 128 MW of QF/Muni generation)

2020 LCR need: not limiting due to the system upgrades, same as Eagle Rock sub-area: 202 MW (includes 128 MW of QF/Muni generation)

Limiting component: Thermal overload on the Vaca Dixon-Lakeville 230 kV line

Lakeville Sub-area (NC/NB Overall) – Category C

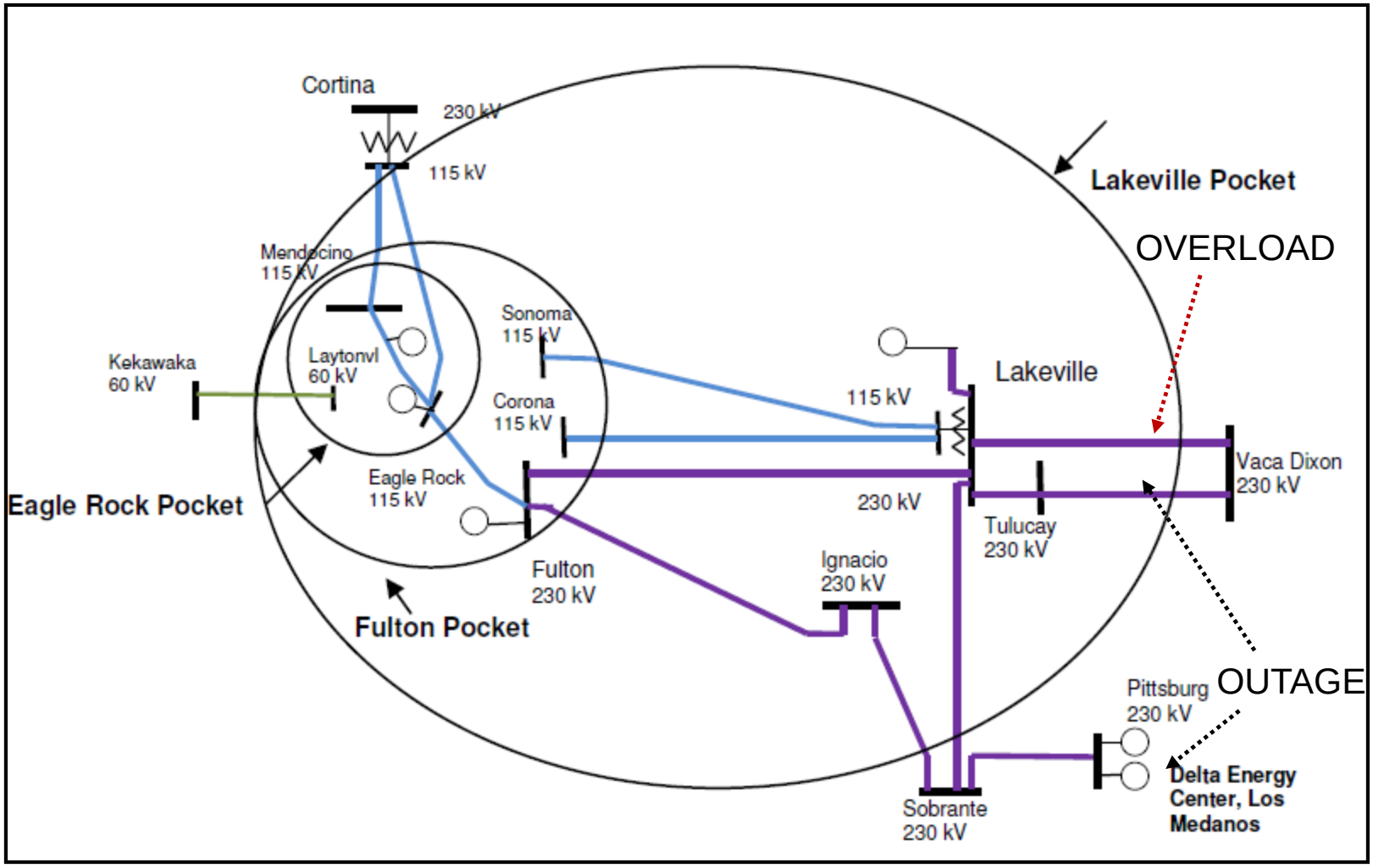
2016 LCR need: Same as Category B

2020 Contingency: Vaca Dixon-Tulucay and Vaca Dixon-Lakeville 230 kV lines

2020 LCR need: 509 MW (includes 128 MW of QF/Muni generation)

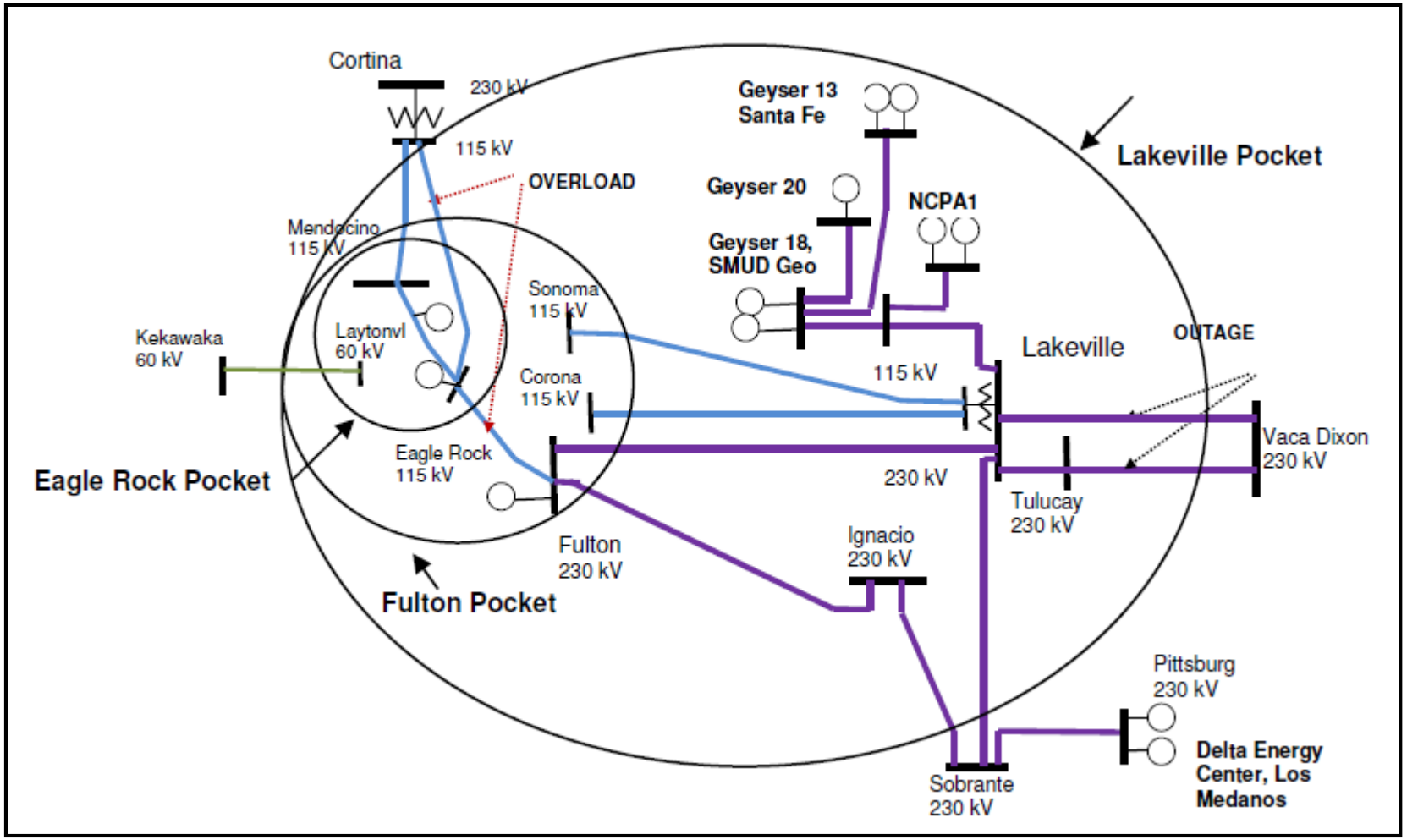
Limiting component: Thermal overload on the Eagle Rock-Cortina 115 kV line and possible overload on the Eagle Rock-Fulton 115 kV line as well as Moraga-Sobrante 115 kV line

Lakeville Sub-area Category B (2016)



No overload in 2020 due to the line reconductoring.

Lakeville Sub-area Category C (2020)



LCR need depends on the generation in the Pittsburg area.

Changes

Since last year:

1. 2016 load forecast has decreased by 25 MW vs. 2015
2. LCR need has increased by 61 MW due to lower Pittsburg area generation in the Bay Area
4. Vaca Dixon-Lakeville 230 kV Reconductoring Project – 7/2017
5. 2020 load forecast has decreased by 8 MW vs. 2019
6. Long-term LCR need has decreased by 7 MW.

Your comments and questions are welcomed

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