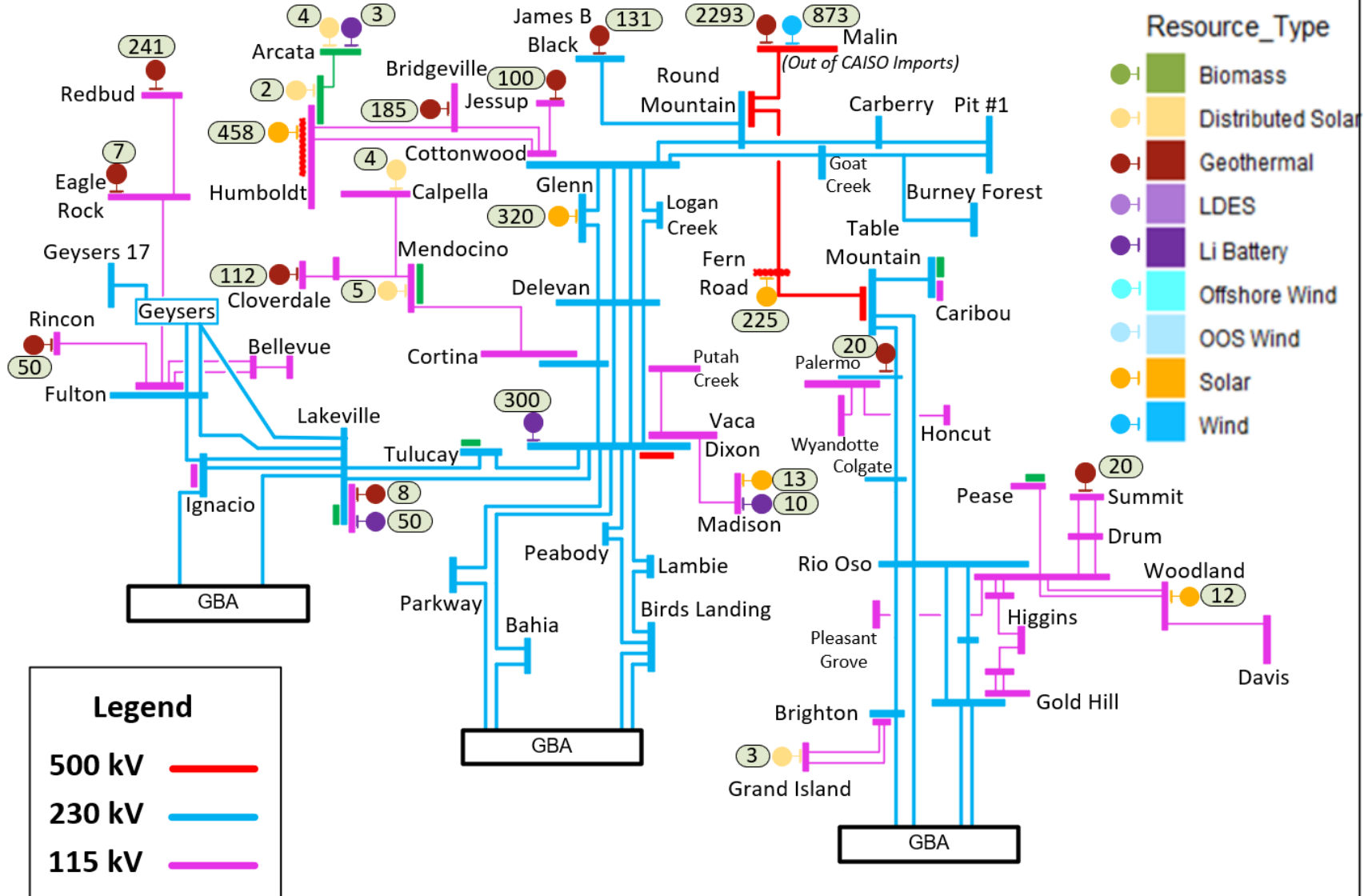




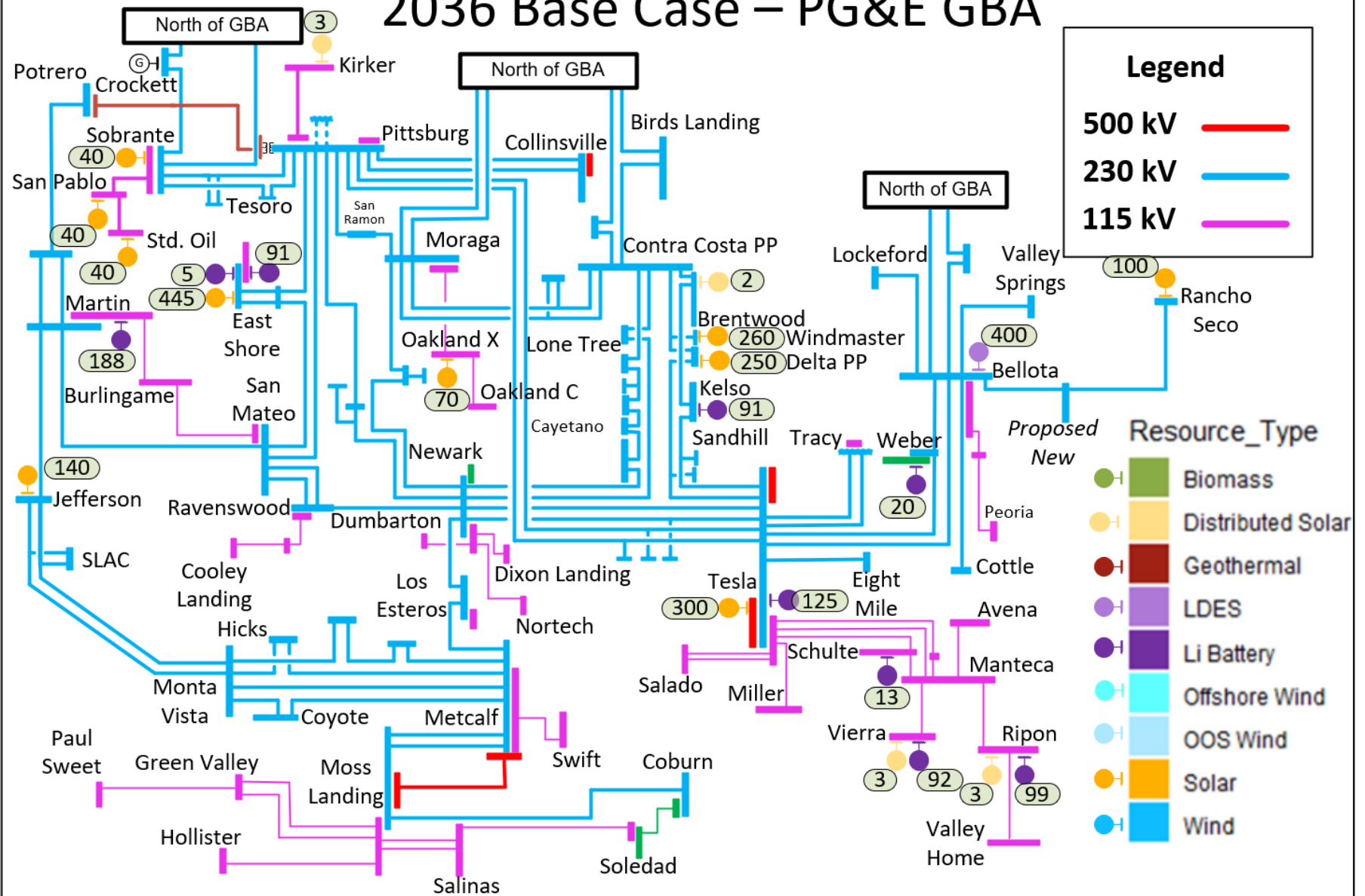
California ISO

CPUC Portfolio Busbar Mapping Diagrams

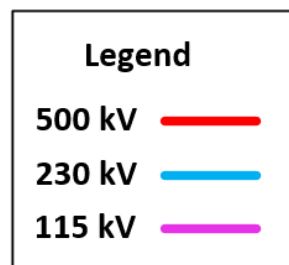
2036 Base Case – PG&E NGBA



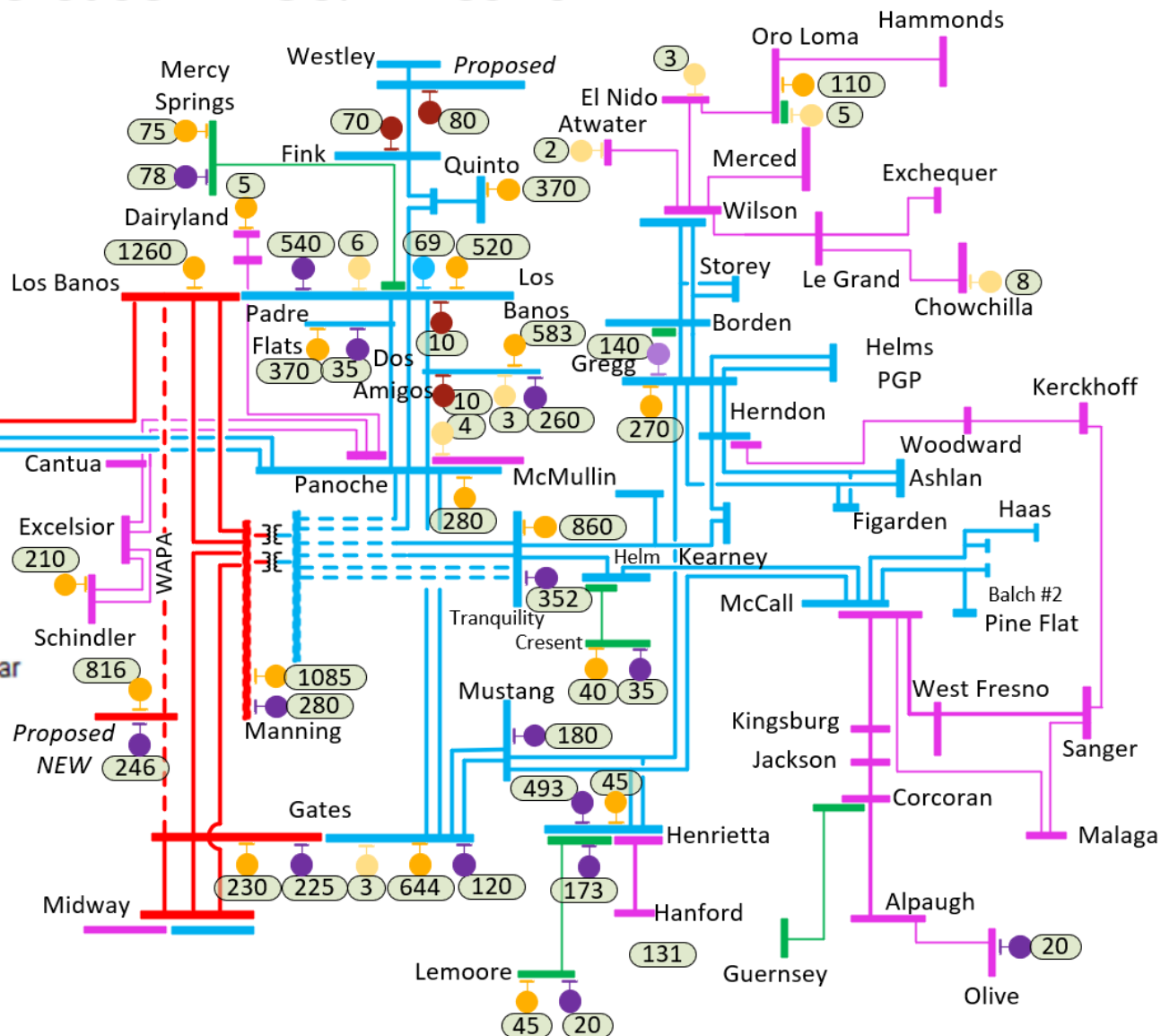
2036 Base Case – PG&E GBA



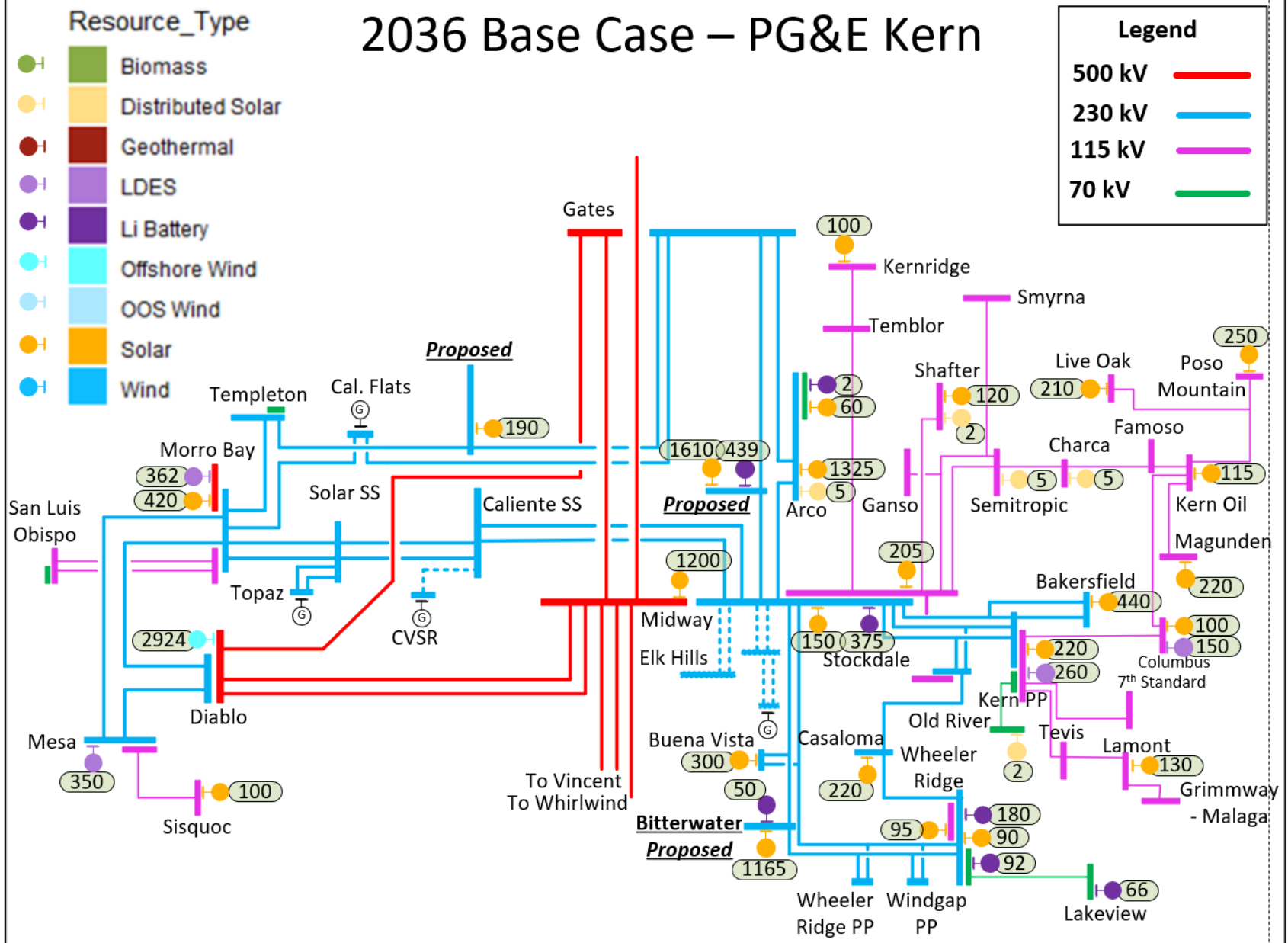
2036 Base Case – PG&E Fresno



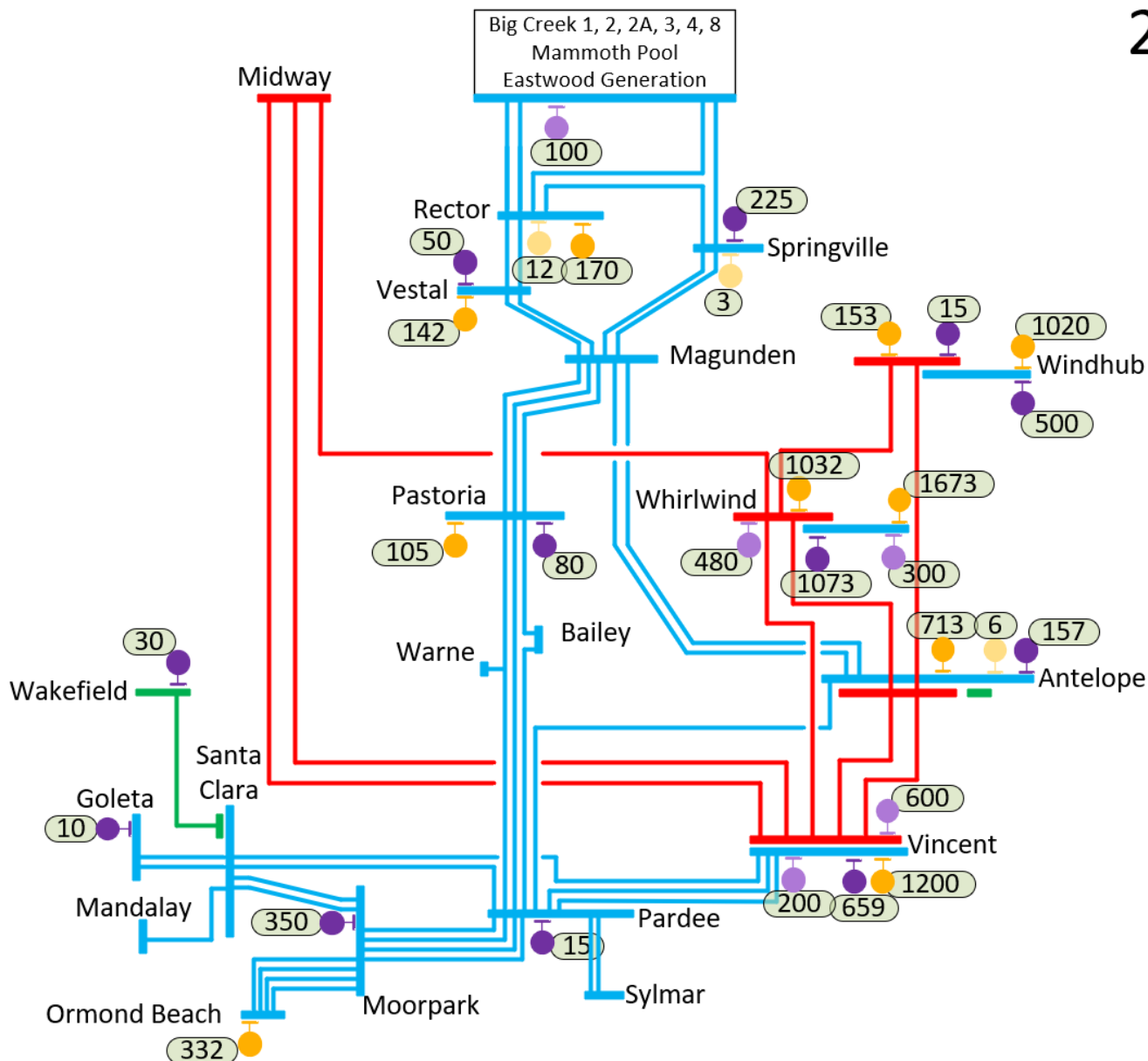
Resource_Type



2036 Base Case – PG&E Kern



2036 Base Case SCE Northern



Legend:

500 kV —

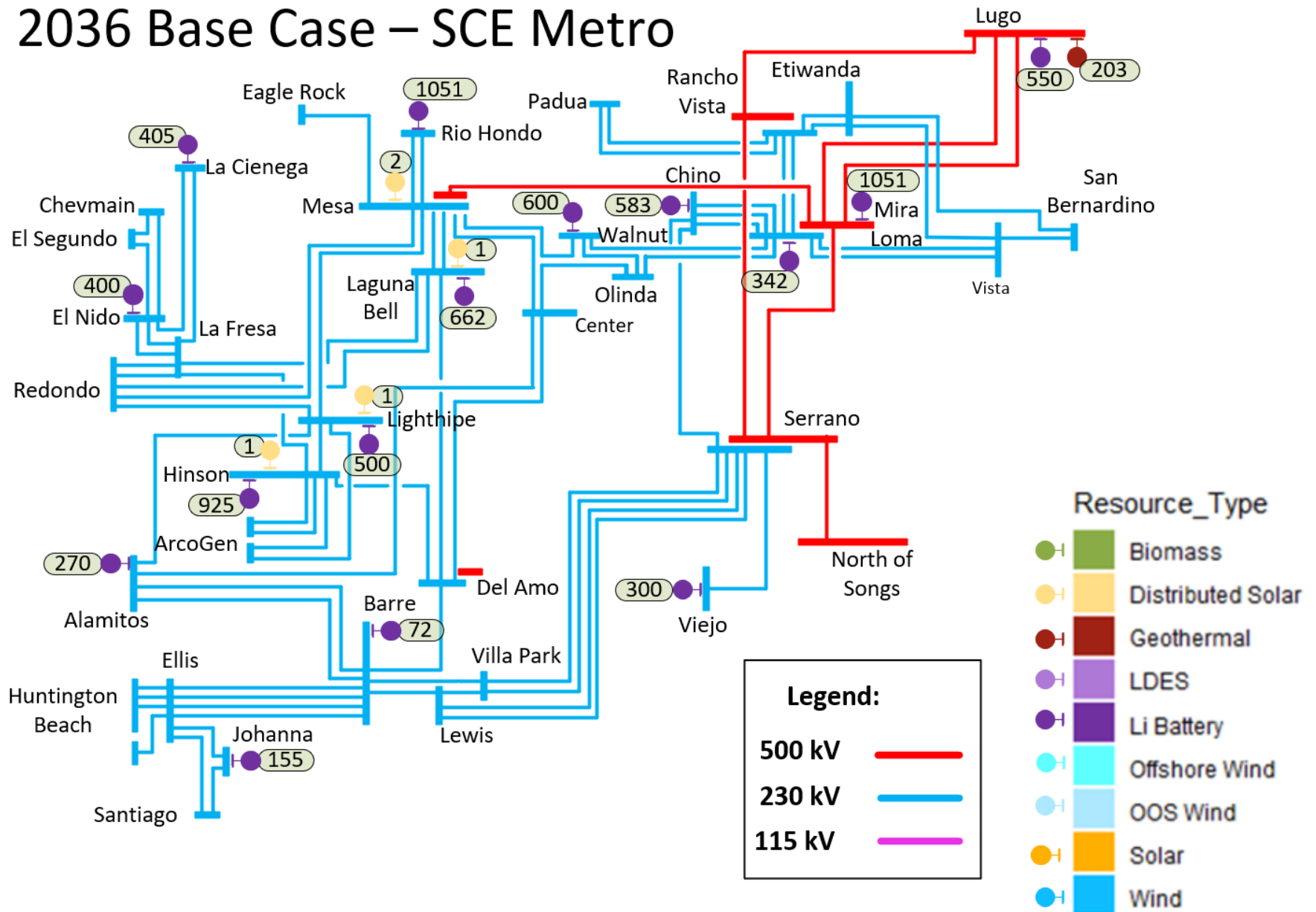
230 kV —

66 kV —

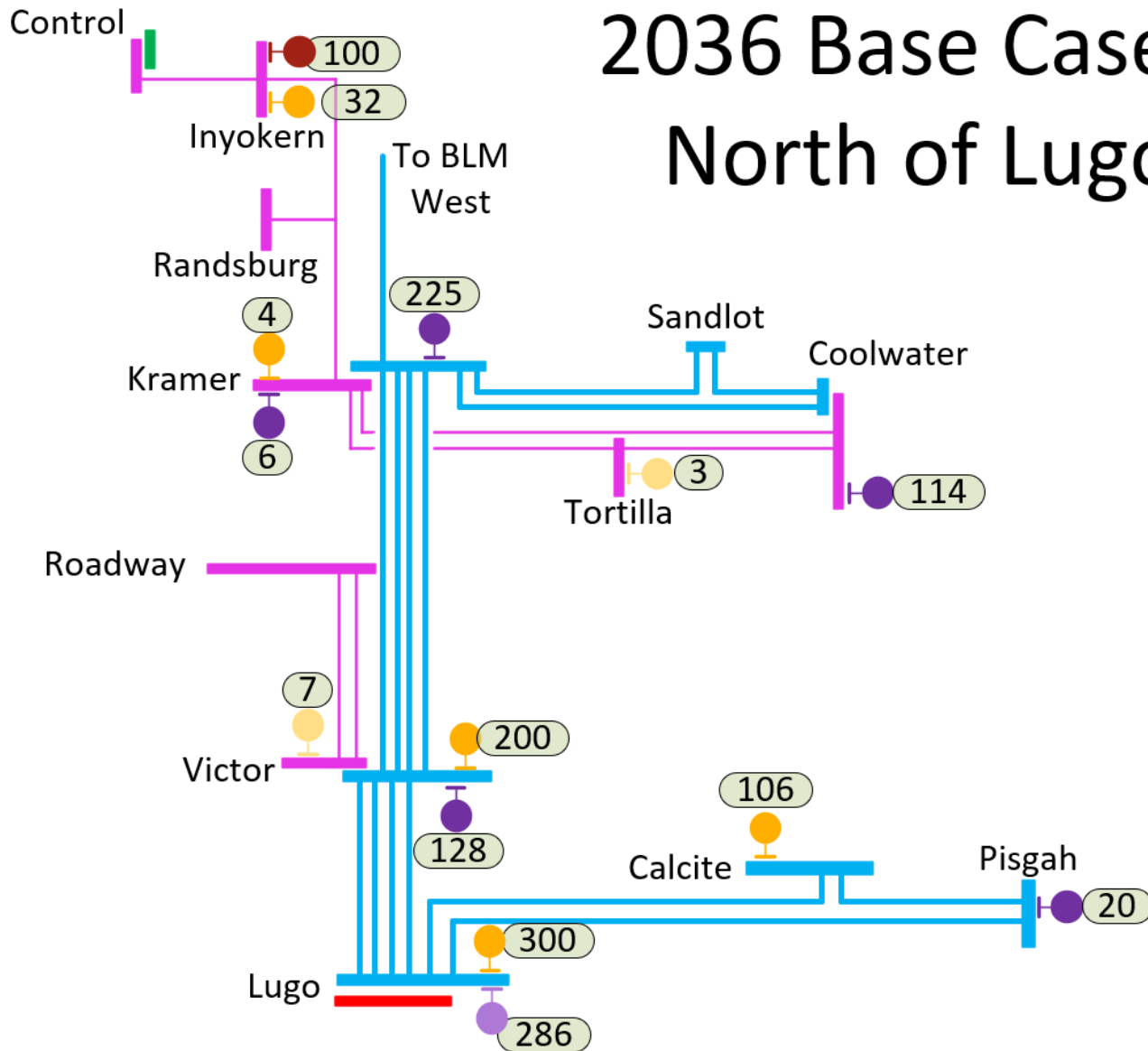
Resource_Type

- Biomass
- Distributed Solar
- Geothermal
- LDES
- Li Battery
- Offshore Wind
- OOS Wind
- Solar
- Wind

2036 Base Case – SCE Metro



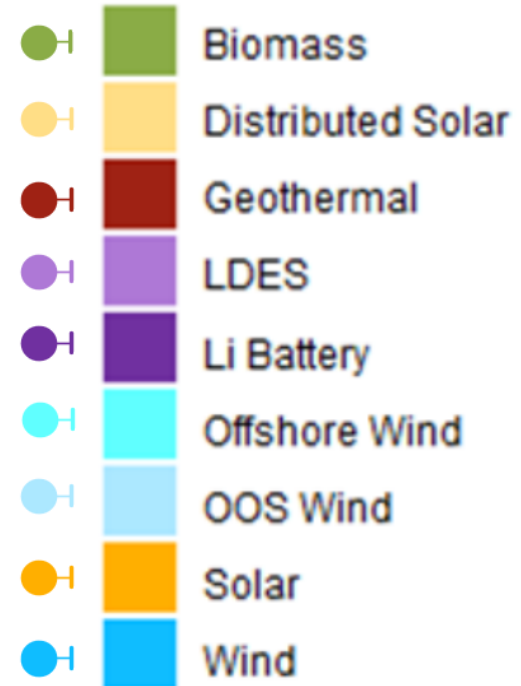
2036 Base Case – North of Lugo



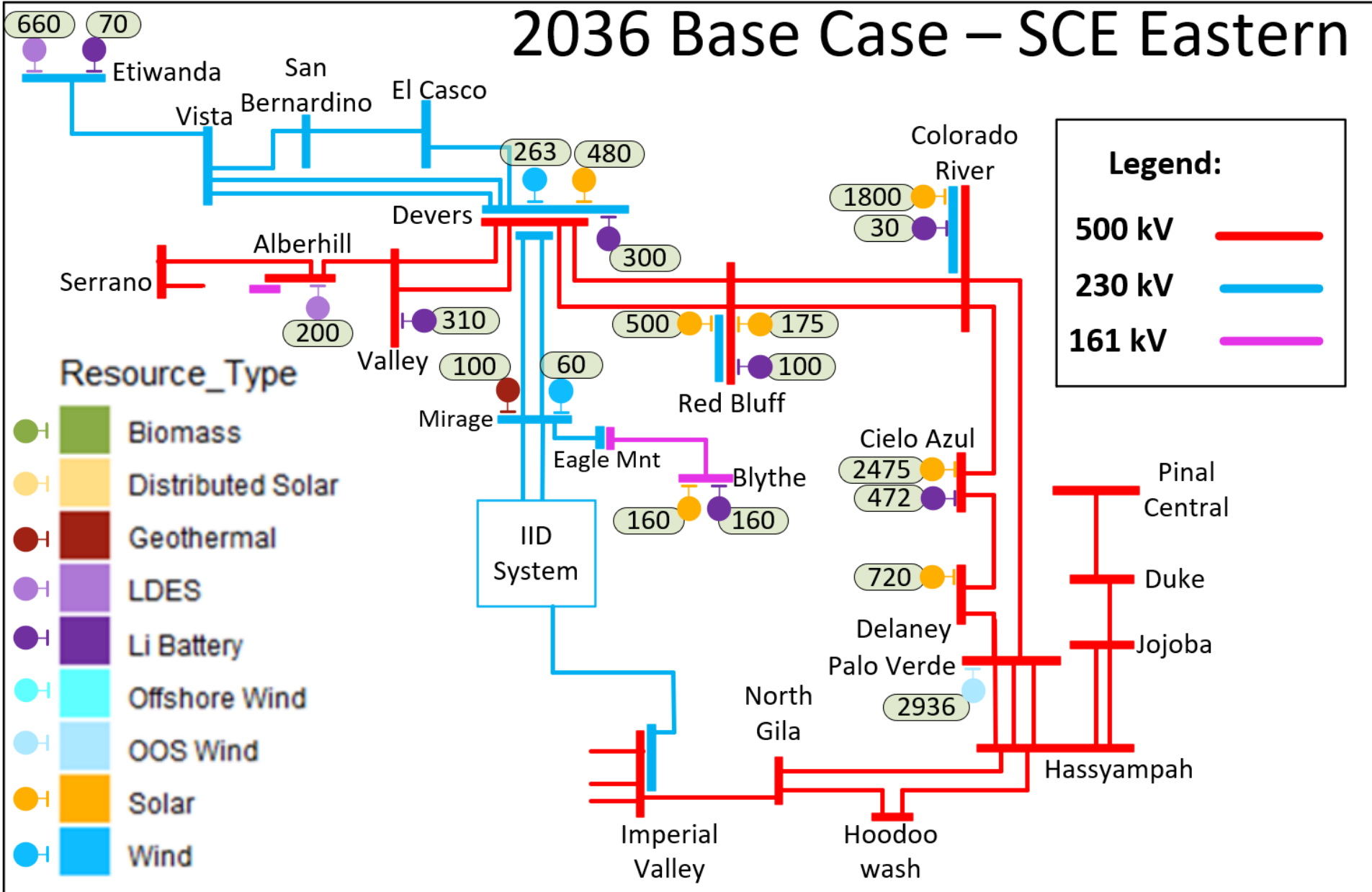
Legend:

500 kV —
 230 kV —
 115 kV —

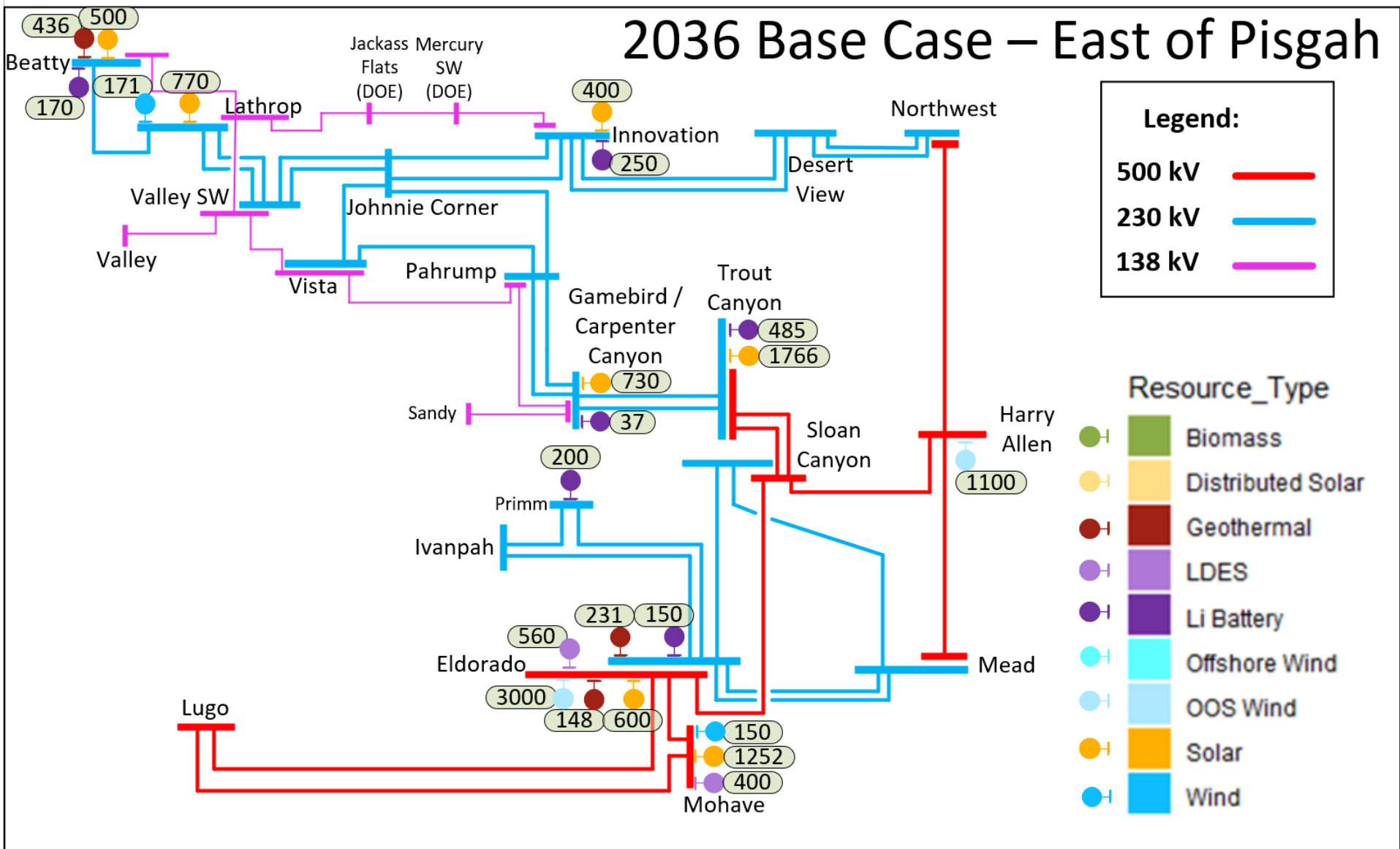
Resource_Type



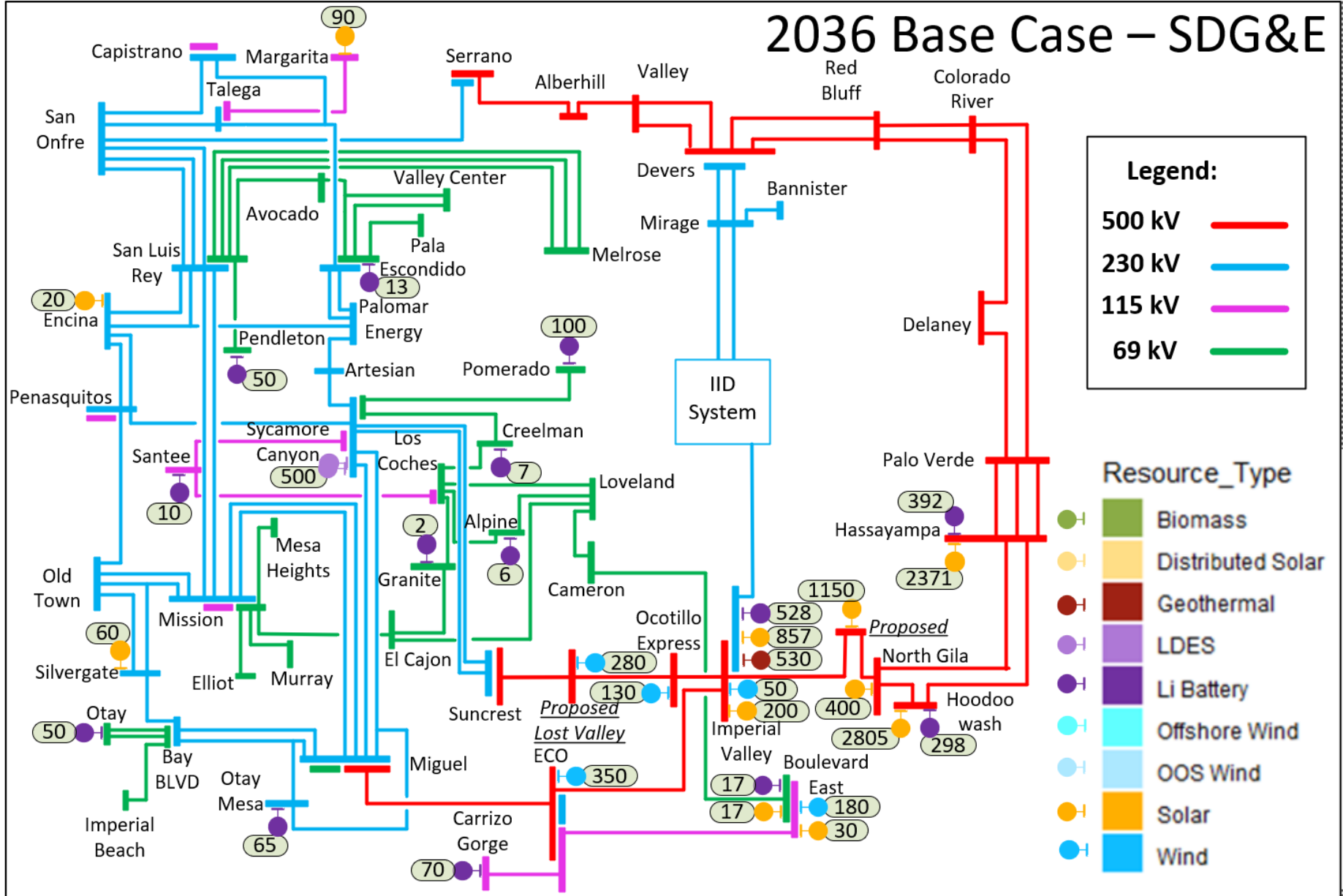
2036 Base Case – SCE Eastern



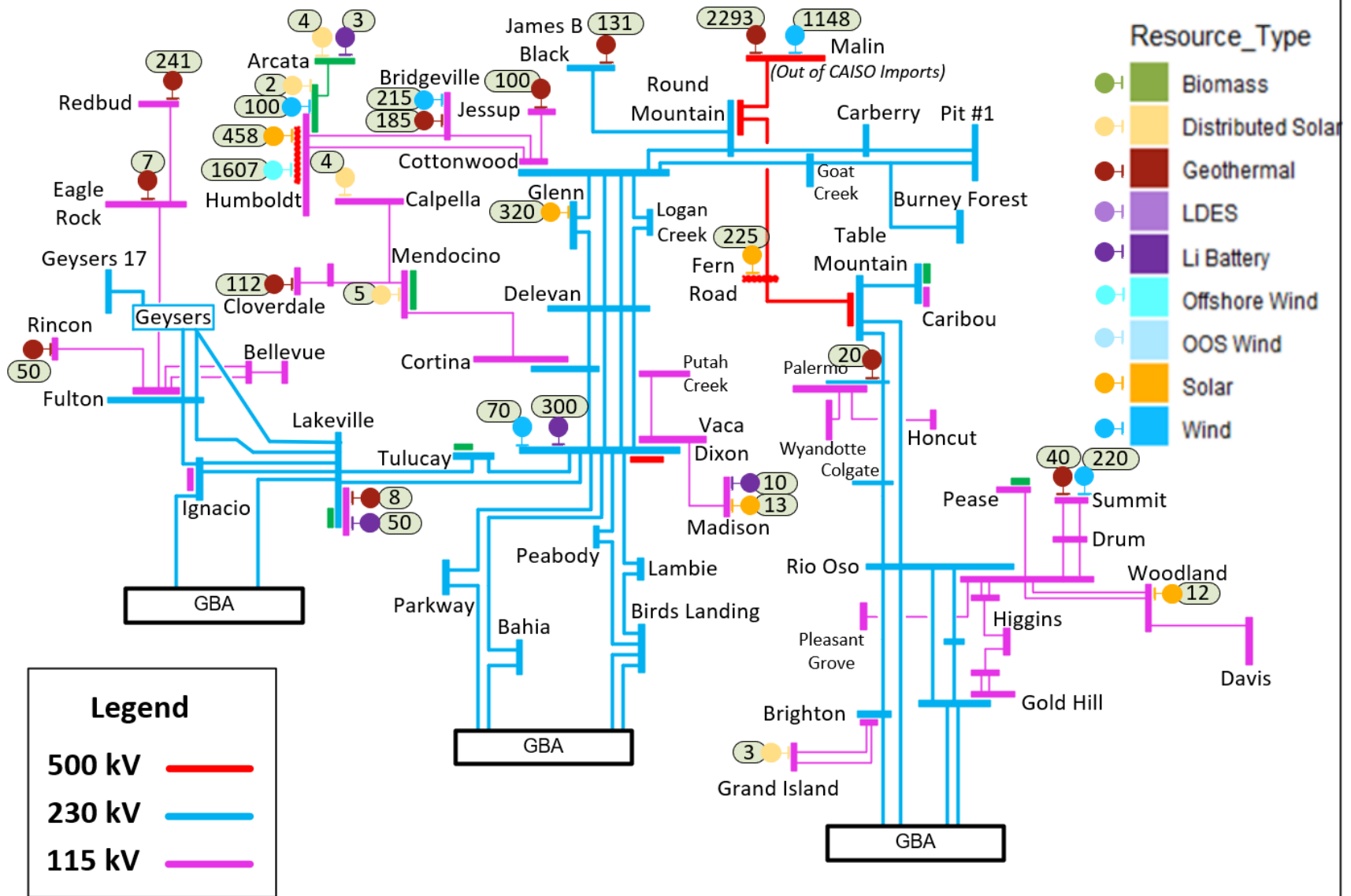
2036 Base Case – East of Pisgah



2036 Base Case – SDG&E



2041 Base Case – PG&E NGBA



2041 Base Case – PG&E GBA

Legend

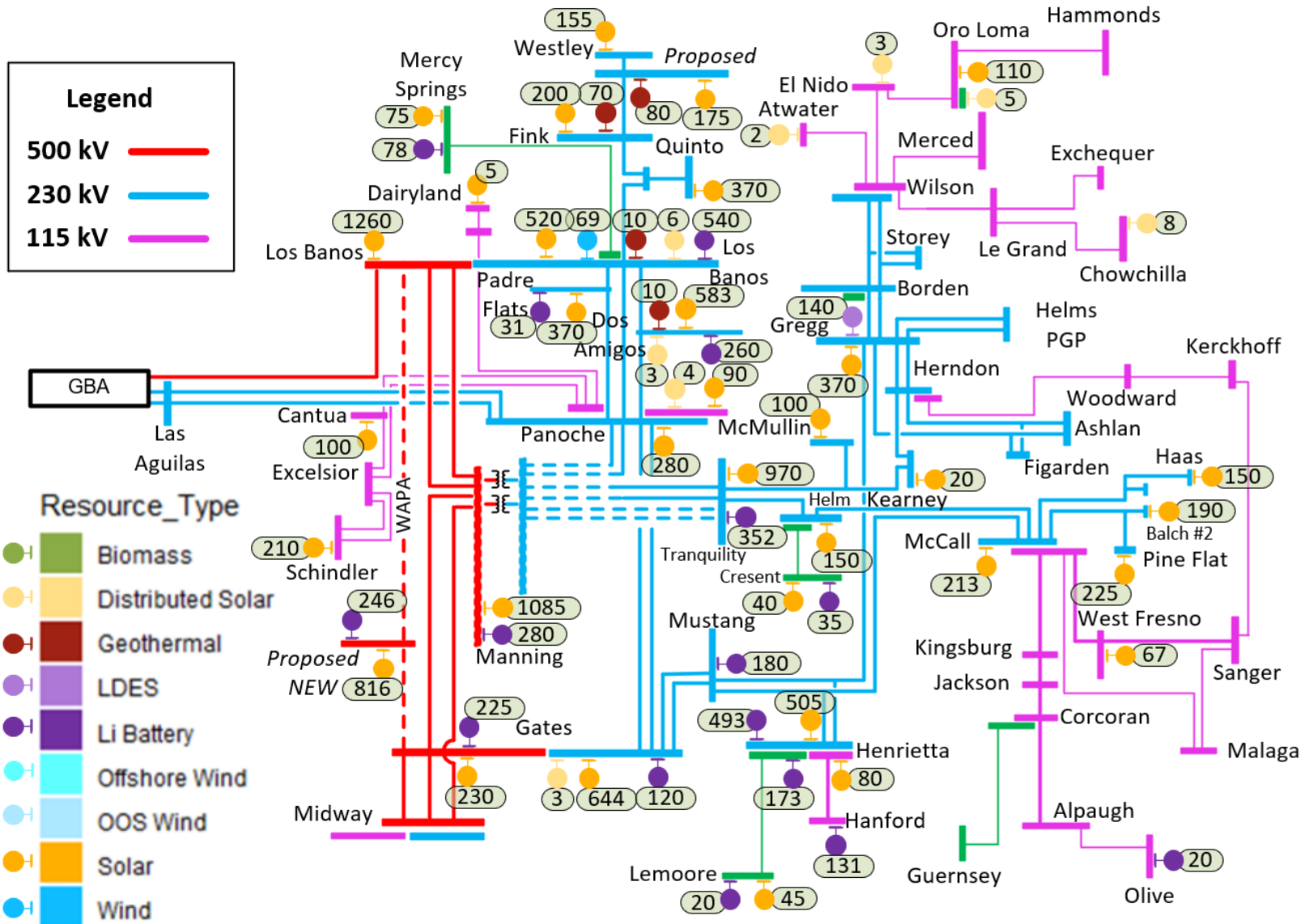
- 500 kV (Red line)
- 230 kV (Blue line)
- 115 kV (Magenta line)

Resource_Type

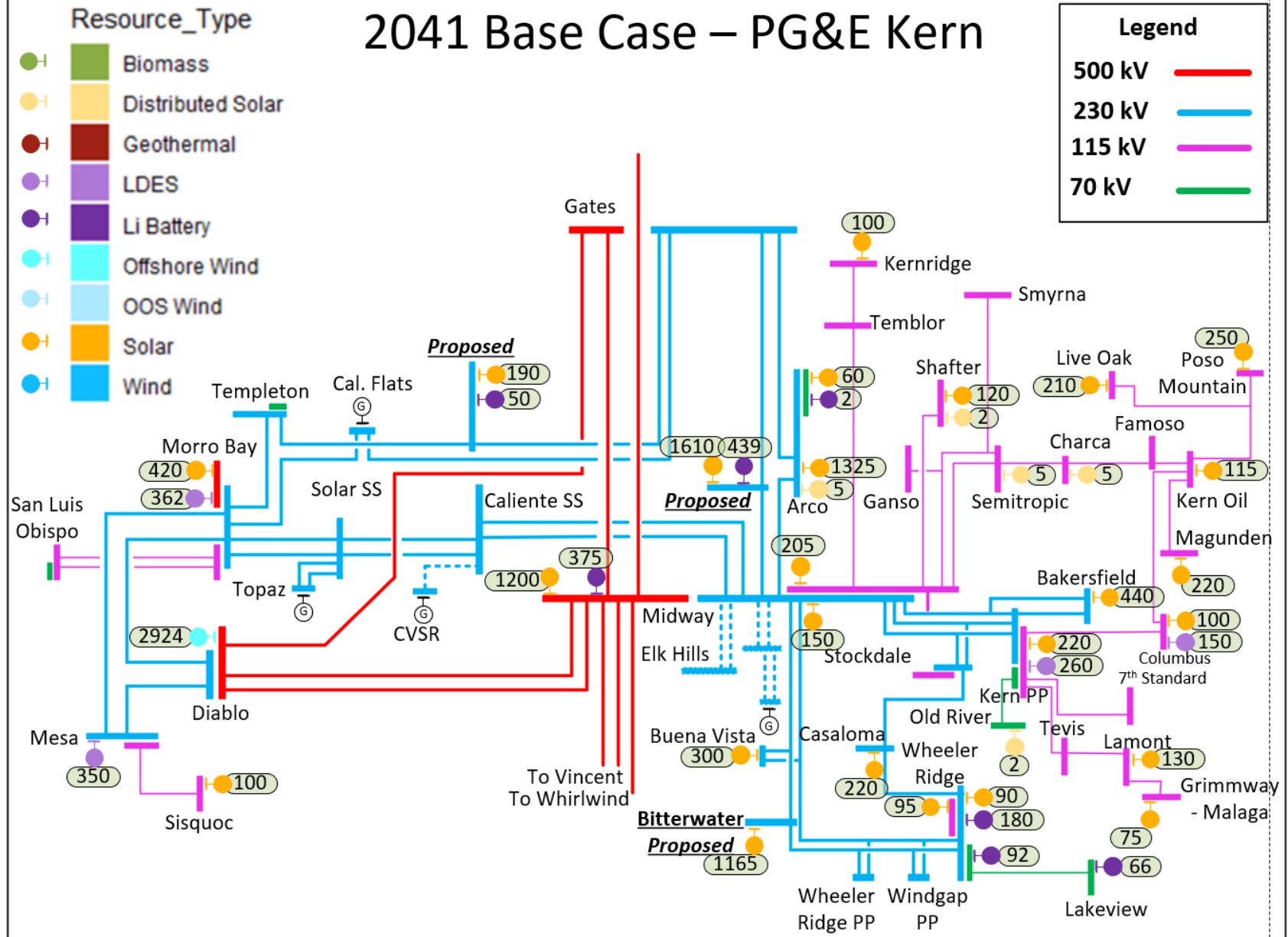
- Biomass (Green square)
- Distributed Solar (Yellow square)
- Geothermal (Brown square)
- LDSE (Purple square)
- Li Battery (Dark purple square)
- Offshore Wind (Cyan square)
- OOS Wind (Light blue square)
- Solar (Orange square)
- Wind (Blue square)

The map shows a dense network of transmission lines connecting various substations and power resources. Key substations include North of GBA, Potrero, Crockett, Sobrante, San Pablo, Tesoro, Pittsburgh, Collinsville, Birds Landing, Moraga, Contra Costa PP, Lone Tree, Oakland X, Oakland C, Newark, Dumbarton, Los Esteros, Nortech, Metcalf, Swift, Coburn, Soledad, Salinas, Moss Landing, Green Valley, Hollister, Paul Sweet, Monta Vista, Coyote, Hicks, Cooley Landing, SLAC, Jefferson, Burlingame, East Shore, San Mateo, Ravenswood, Dumbarton, Dixon Landing, Tesla, Salado, Miller, Schulte, Vierra, Ripon, Valley Home, Valley Springs, Bellota, Rancho Seco, Peoria, Cottle, Avena, Manteca, and Weber. Power resources are indicated by colored circles with numbers, representing different types of energy sources like Solar, Wind, and Geothermal.

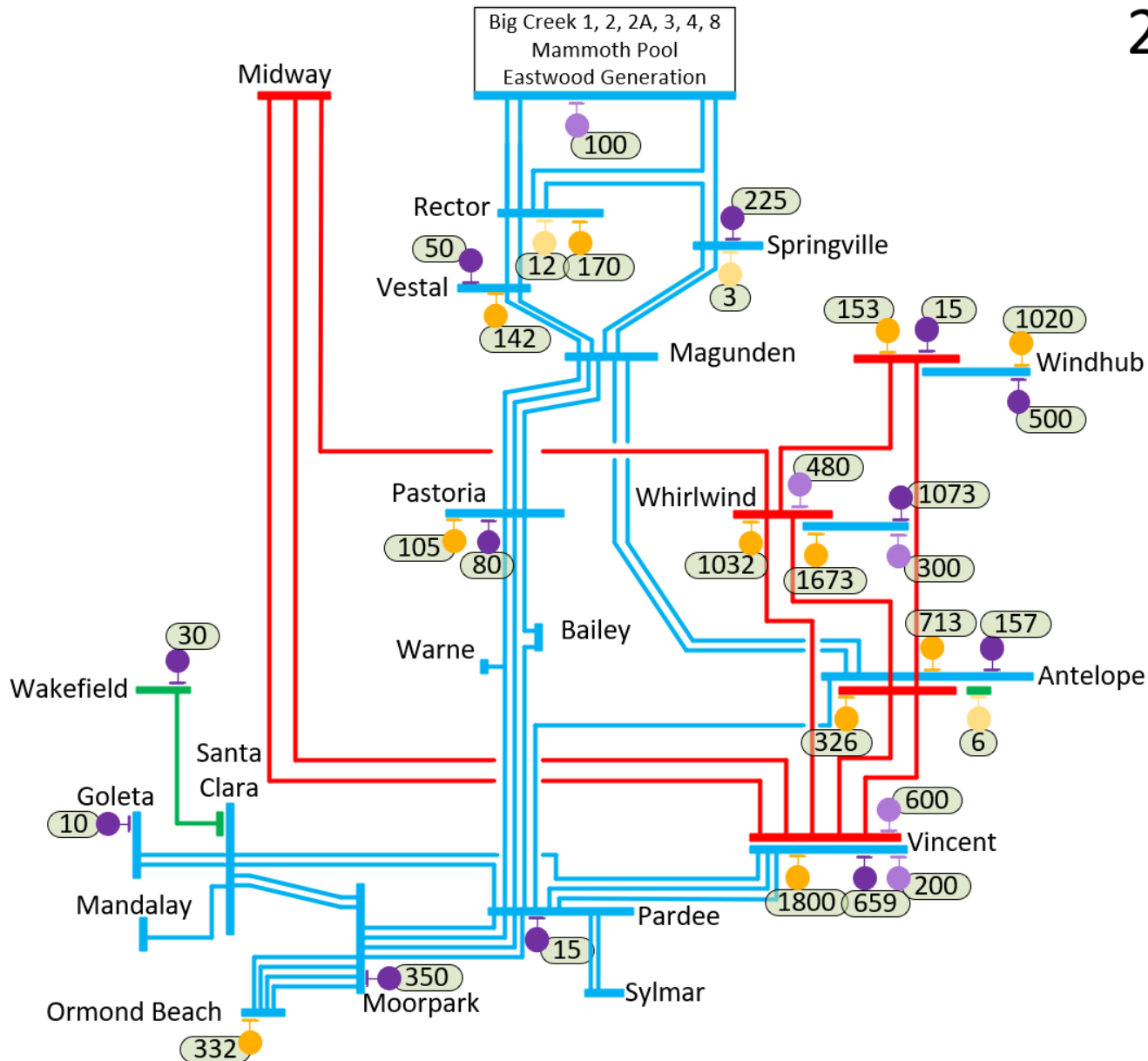
2041 Base Case – PG&E Fresno



2041 Base Case – PG&E Kern



2041 Base Case SCE Northern



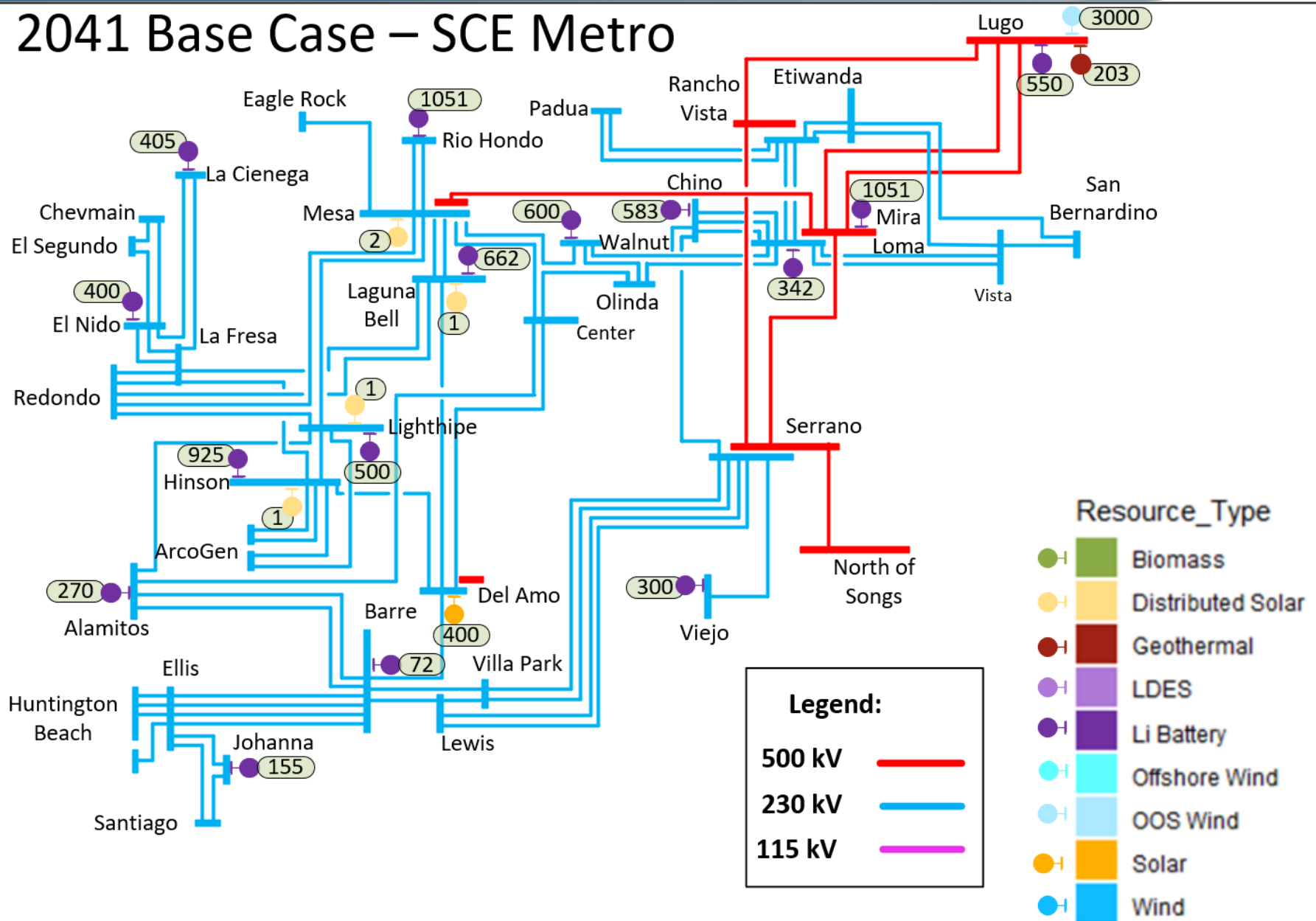
Legend:

500 kV —
230 kV —
66 kV —

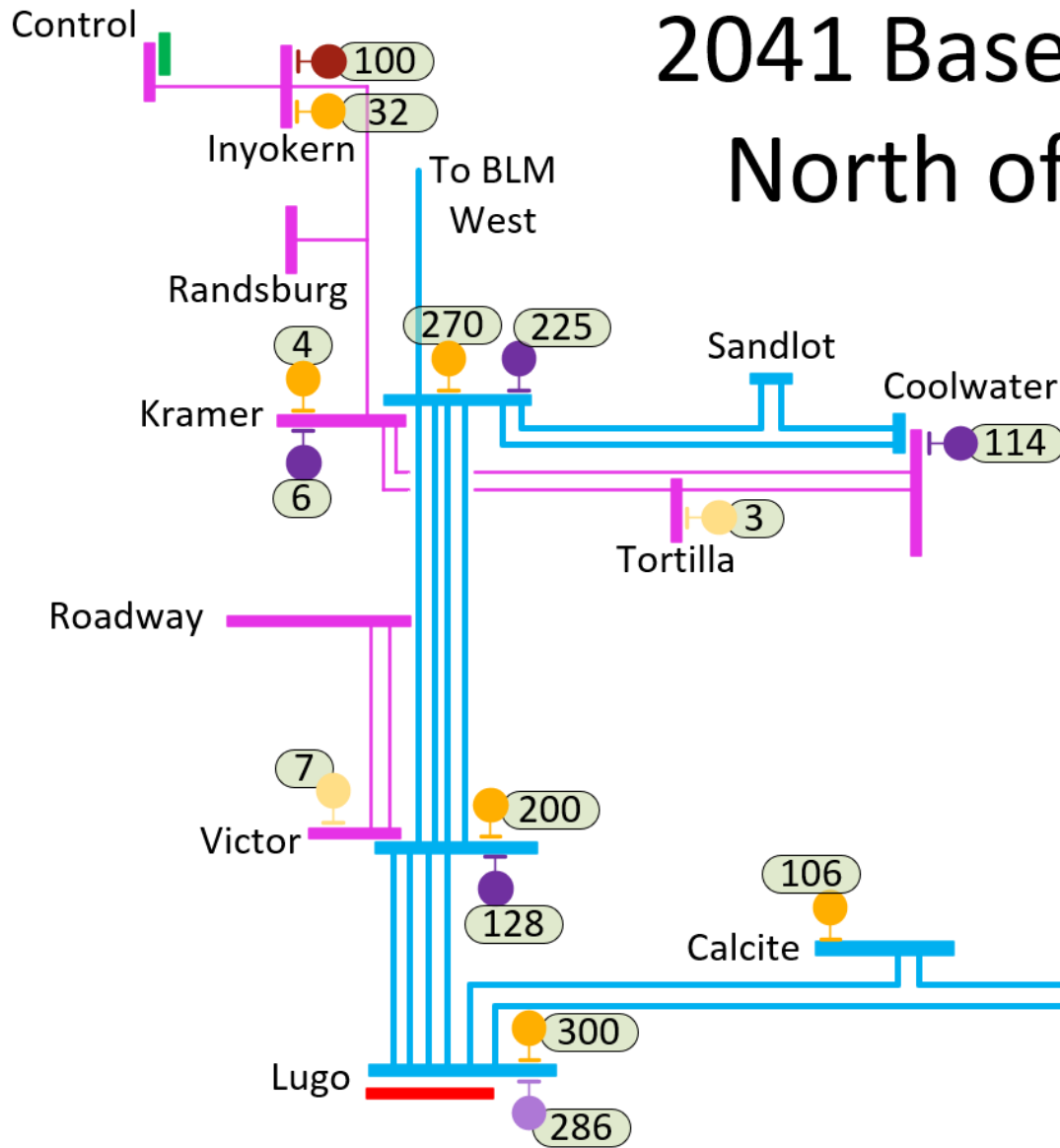
Resource_Type

- Biomass
- Distributed Solar
- Geothermal
- LDES
- Li Battery
- Offshore Wind
- OOS Wind
- Solar
- Wind

2041 Base Case – SCE Metro



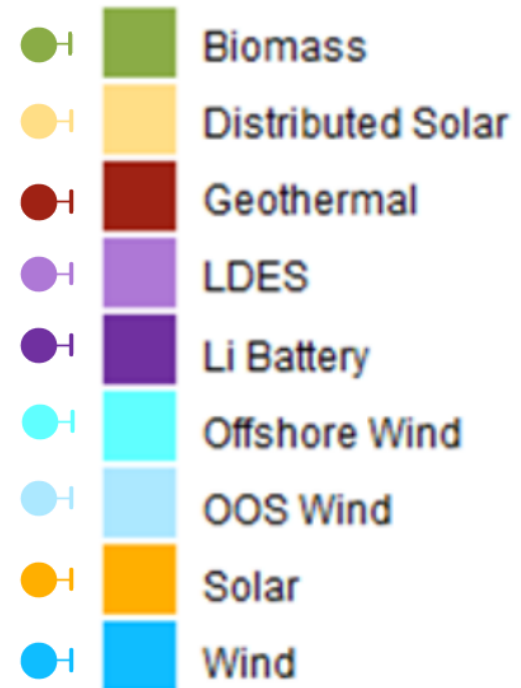
2041 Base Case – North of Lugo



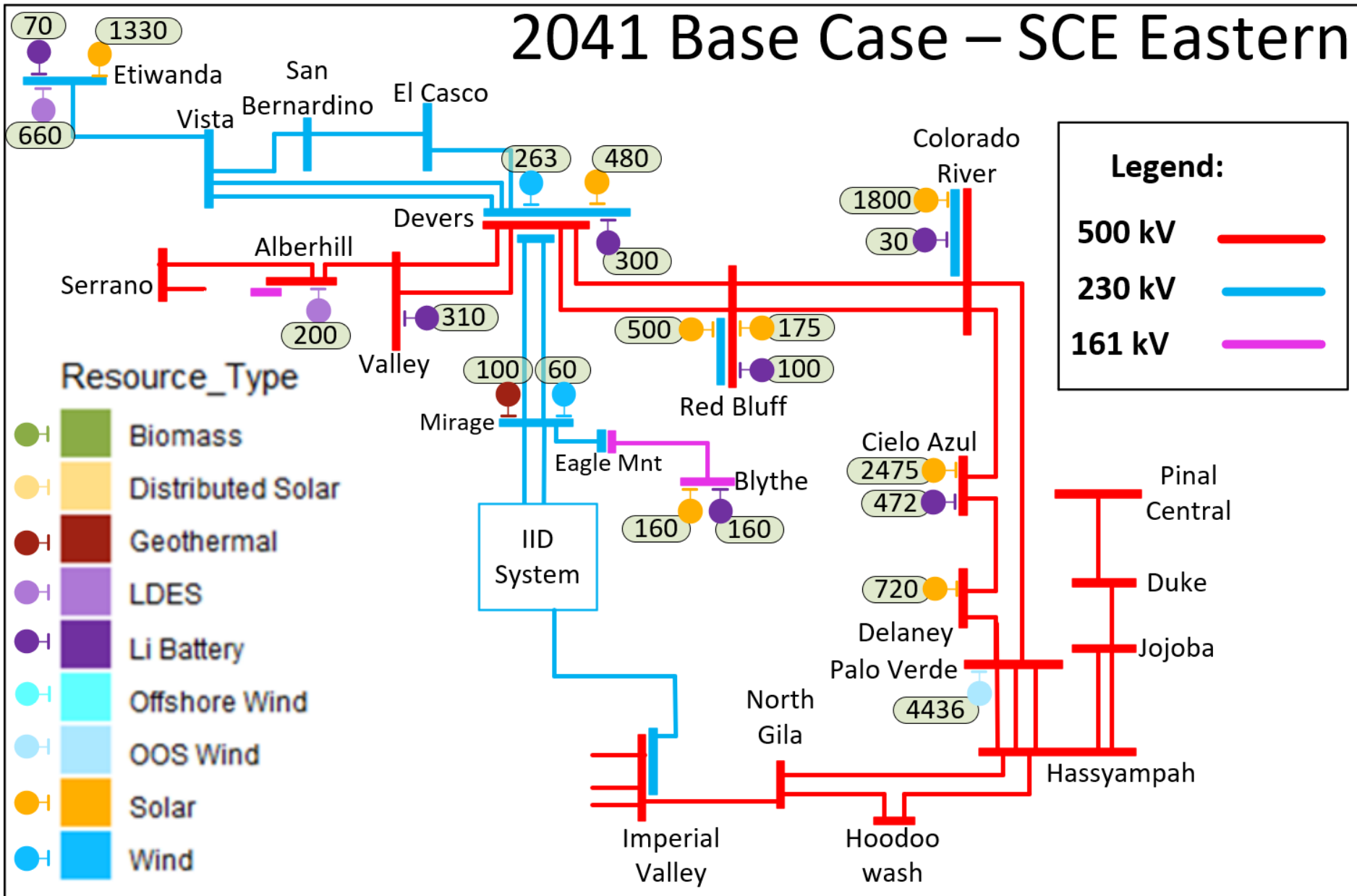
Legend:

500 kV —
230 kV —
115 kV —

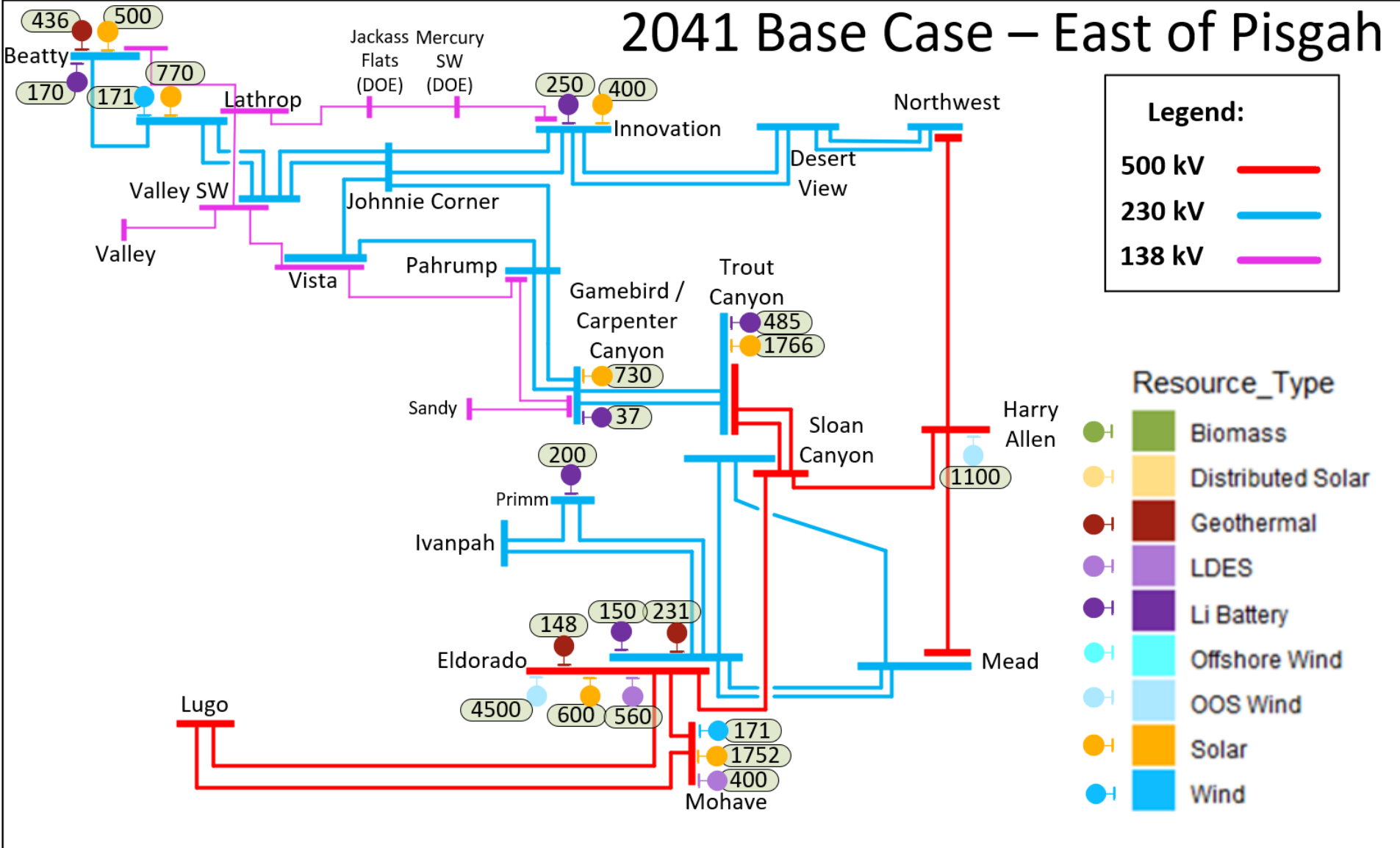
Resource_Type



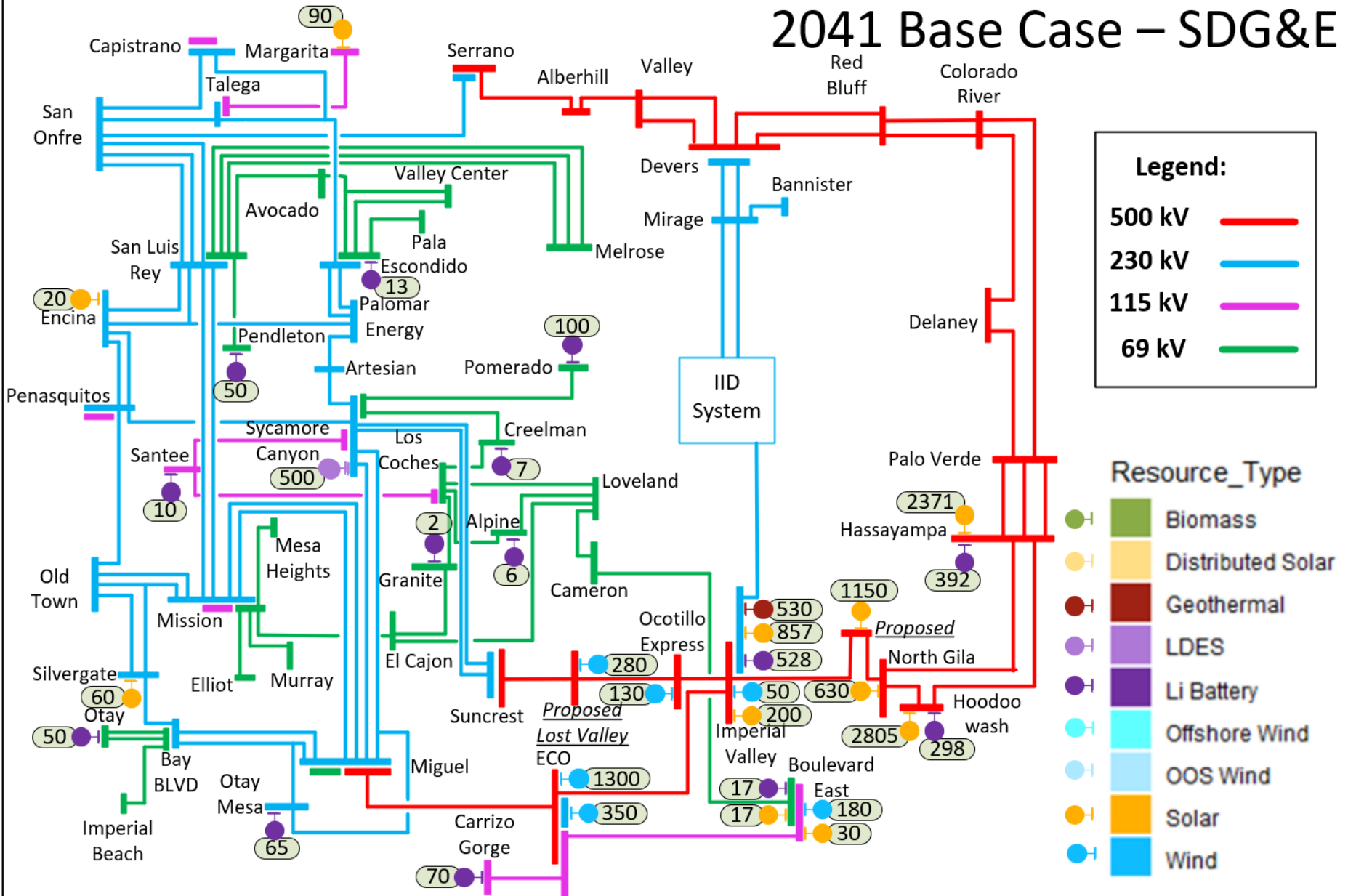
2041 Base Case – SCE Eastern



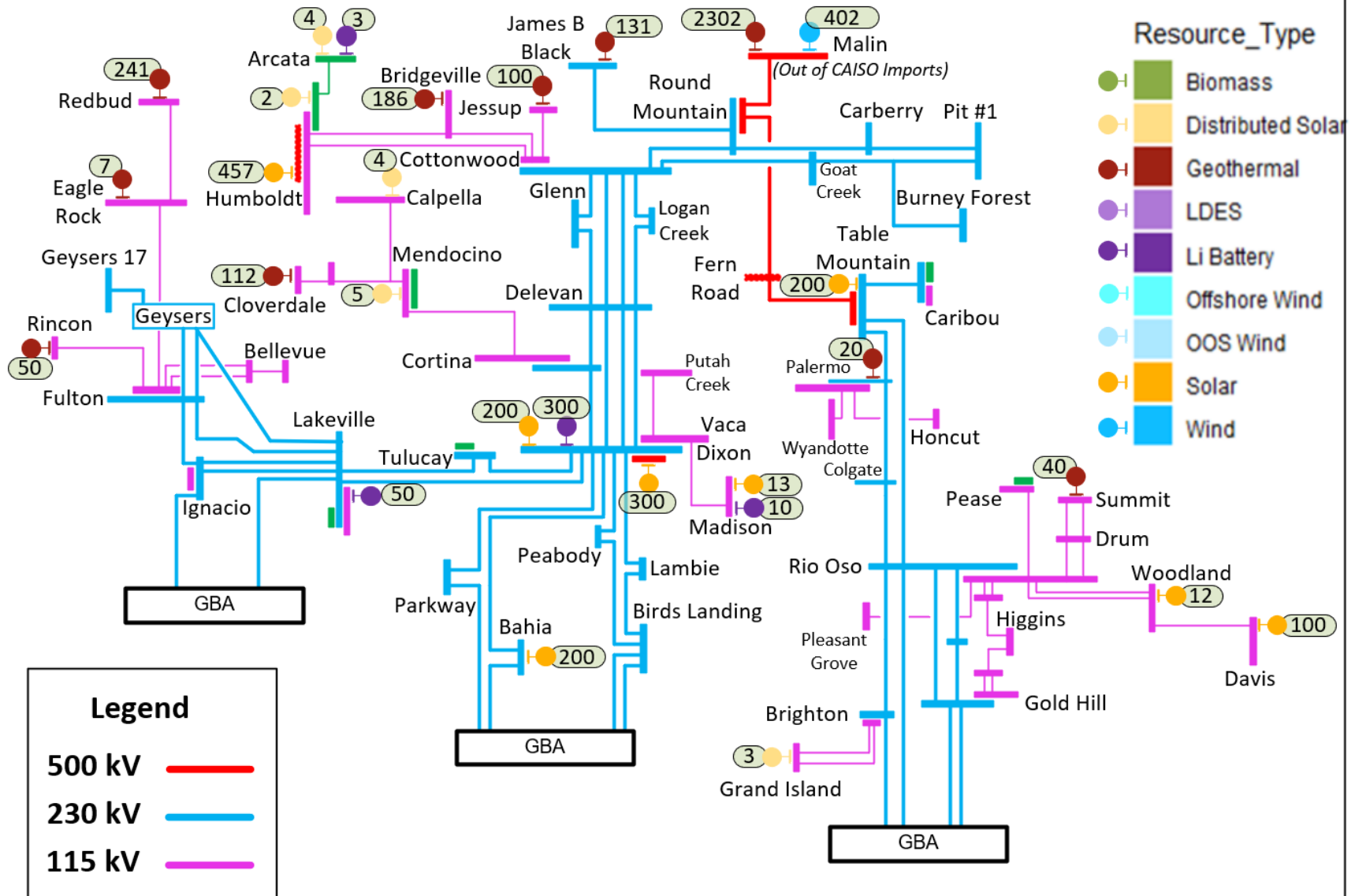
2041 Base Case – East of Pisgah



2041 Base Case – SDG&E



2036 Sensitivity Case – PG&E NGBA



2036 Sensitivity Case – PG&E GBA

Legend

- 500 kV (Red line)
- 230 kV (Blue line)
- 115 kV (Purple line)

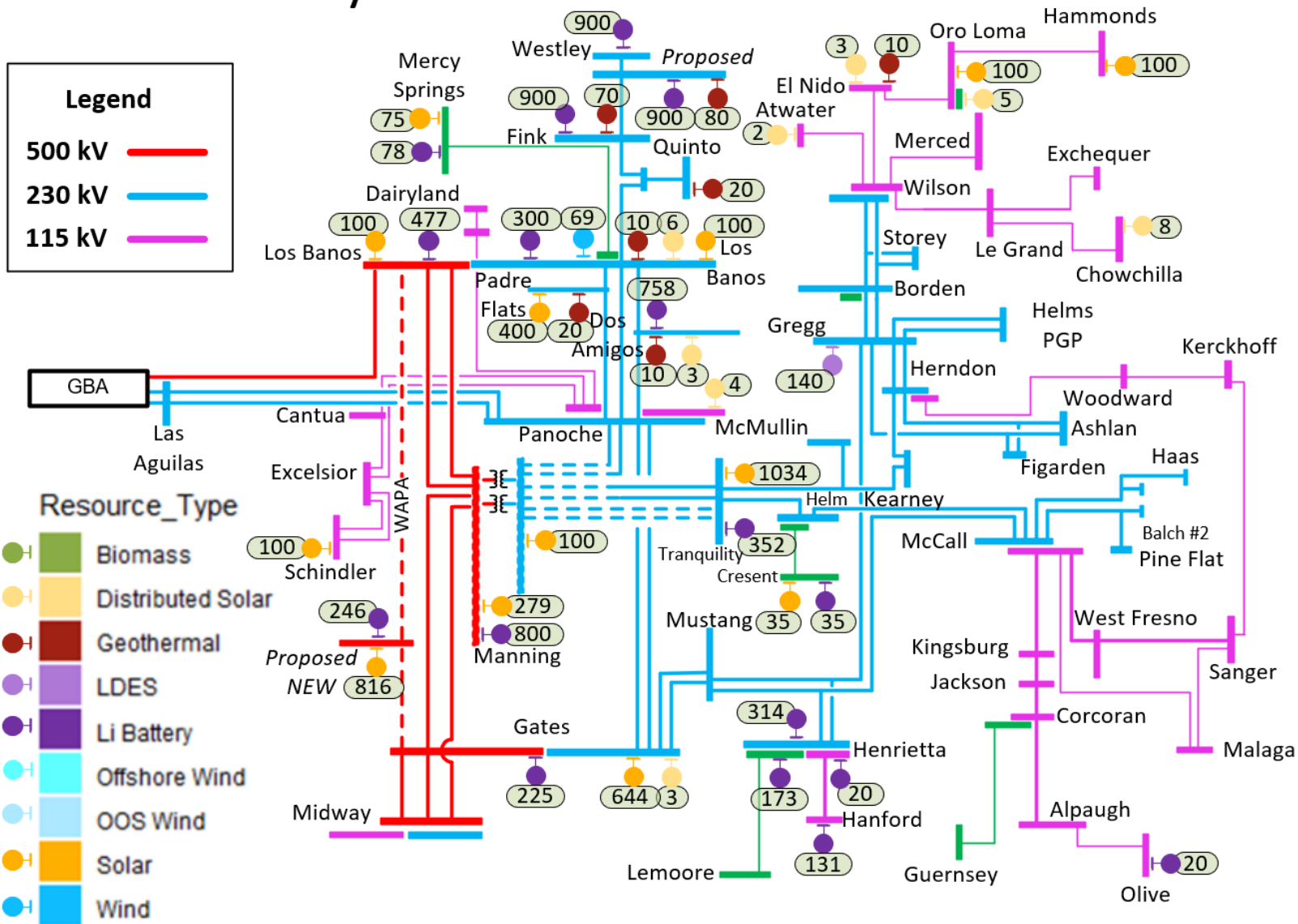
Resource_Type

- Biomass (Green square)
- Distributed Solar (Yellow square)
- Geothermal (Brown square)
- LDES (Light purple square)
- Li Battery (Dark purple square)
- Offshore Wind (Cyan square)
- OOS Wind (Light blue square)
- Solar (Orange square)
- Wind (Blue square)

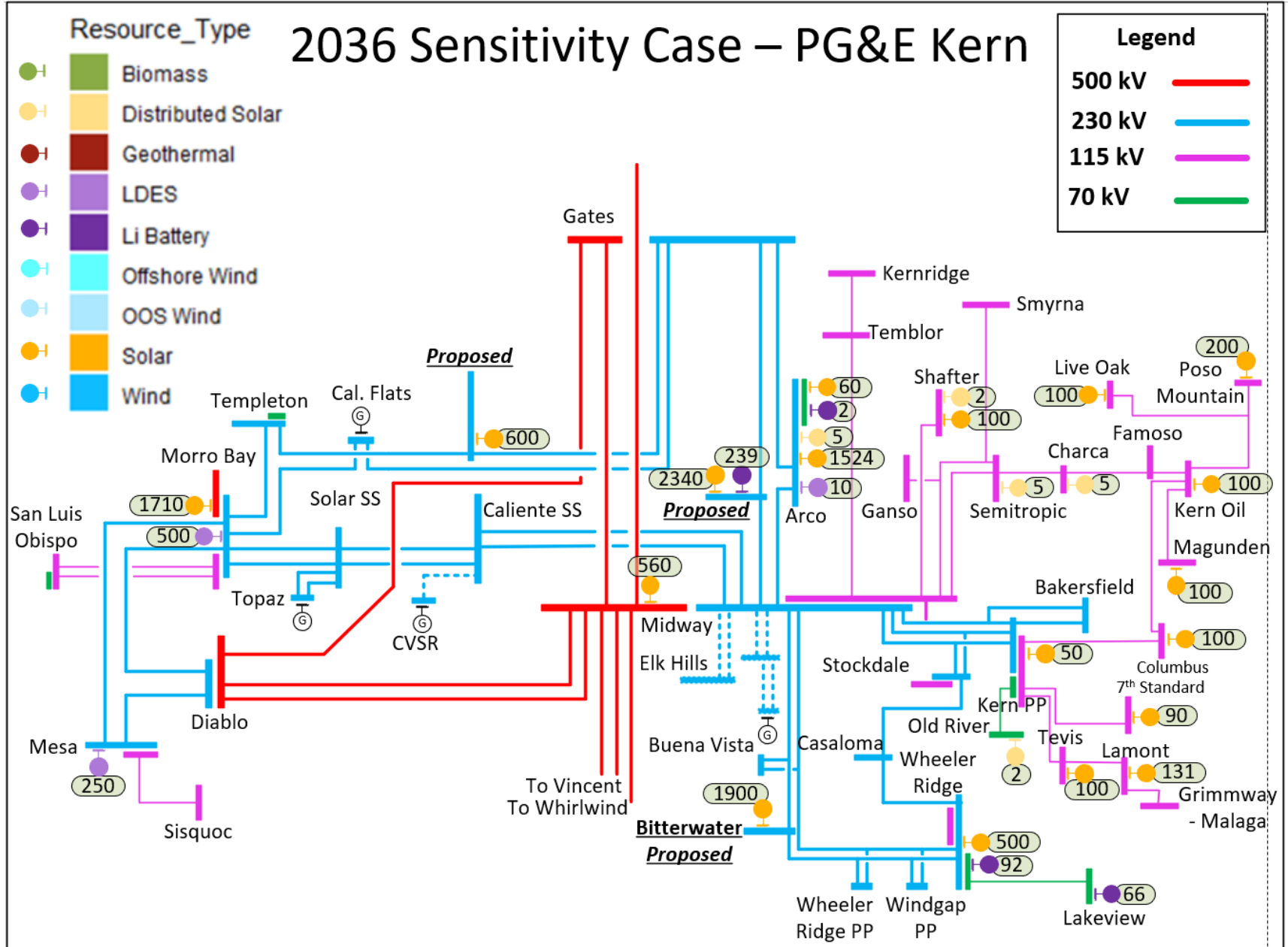
Resource Locations and Capacities:

- Potrero (3)
- Kirker (3)
- Birds Landing (100)
- Lockeford (200)
- Valley Springs (200)
- Brentwood (23, 90)
- Kelso (91)
- Sandhill (91)
- Tracy (400)
- Weber (20)
- Peoria (20)
- Cottle (100)
- Avena (100)
- Manteca (100)
- Ripon (3, 99)
- Valley Home (100)
- Salinas (50)
- Soledad (100)
- Coburn (100)
- Swift (34)
- Metcalf (37)
- Coyote (100)
- Green Valley (100)
- Hollister (164)
- Paul Sweet (13)
- Monta Vista (100)
- Hicks (100)
- Cooley Landing (100)
- SLAC (100)
- Jefferson (100)
- Burlingame (188)
- Martin (188)
- East Shore (100)
- San Mateo (100)
- Dumbarton (100)
- Los Esteros (100)
- Nortech (100)
- Dixon Landing (23)
- Tesla (125)
- Eight Mile (1100)
- Schulte (13)
- Vierra (3, 92)
- Miller (100)
- Salado (100)
- Salinas (100)
- Moss Landing (50)
- Hollister (164)
- Green Valley (100)
- Paul Sweet (13)
- Monta Vista (100)
- Hicks (100)
- Cooley Landing (100)
- SLAC (100)
- Jefferson (100)
- Burlingame (188)
- Martin (188)
- East Shore (100)
- San Mateo (100)
- Dumbarton (100)
- Los Esteros (100)
- Nortech (100)
- Dixon Landing (23)
- Tesla (125)
- Eight Mile (1100)
- Schulte (13)
- Vierra (3, 92)
- Miller (100)
- Salado (100)
- Salinas (100)
- Moss Landing (50)
- Hollister (164)
- Green Valley (100)
- Paul Sweet (13)
- Monta Vista (100)
- Hicks (100)
- Cooley Landing (100)
- SLAC (100)
- Jefferson (100)
- Burlingame (188)
- Martin (188)
- East Shore (100)
- San Mateo (100)
- Dumbarton (100)
- Los Esteros (100)
- Nortech (100)
- Dixon Landing (23)
- Tesla (125)
- Eight Mile (1100)
- Schulte (13)
- Vierra (3, 92)
- Miller (100)
- Salado (100)
- Salinas (100)
- Moss Landing (50)
- Hollister (164)
- Green Valley (100)
- Paul Sweet (13)
- Monta Vista (100)
- Hicks (100)
- Cooley Landing (100)
- SLAC (100)
- Jefferson (100)
- Burlingame (188)
- Martin (188)
- East Shore (100)
- San Mateo (100)
- Dumbarton (100)
- Los Esteros (100)
- Nortech (100)
- Dixon Landing (23)
- Tesla (125)
- Eight Mile (1100)
- Schulte (13)
- Vierra (3, 92)
- Miller (100)
- Salado (100)
- Salinas (100)
- Moss Landing (50)
- Hollister (164)
- Green Valley (100)
- Paul Sweet (13)
- Monta Vista (100)
- Hicks (100)
- Cooley Landing (100)
- SLAC (100)
- Jefferson (100)
- Burlingame (188)
- Martin (188)
- East Shore (100)
- San Mateo (100)
- Dumbarton (100)
- Los Esteros (100)
- Nortech (100)
- Dixon Landing (23)
- Tesla (125)
- Eight Mile (1100)
- Schulte (13)
- Vierra (3, 92)
- Miller (100)
- Salado (100)
- Salinas (100)
- Moss Landing (50)
- Hollister (164)
- Green Valley (100)
- Paul Sweet (13)
- Monta Vista (100)
- Hicks (100)
- Cooley Landing (100)
- SLAC (100)
- Jefferson (100)
- Burlingame (188)
- Martin (188)
- East Shore (100)
- San Mateo (100)
- Dumbarton (100)
- Los Esteros (100)
- Nortech (100)
- Dixon Landing (23)
- Tesla (125)
- Eight Mile (1100)
- Schulte (13)
- Vierra (3, 92)
- Miller (100)
- Salado (100)
- Salinas (100)
- Moss Landing (50)
- Hollister (164)
- Green Valley (100)
- Paul Sweet (13)
- Monta Vista (100)
- Hicks (100)
- Cooley Landing (100)
- SLAC (100)
- Jefferson (100)
- Burlingame (188)
- Martin (188)
- East Shore (100)
- San Mateo (100)
- Dumbarton (100)
- Los Esteros (100)
- Nortech (100)
- Dixon Landing (23)
- Tesla (125)
- Eight Mile (1100)
- Schulte (13)
- Vierra (3, 92)
- Miller (100)
- Salado (100)
- Salinas (100)
- Moss Landing (50)
- Hollister (164)
- Green Valley (100)
- Paul Sweet (13)
- Monta Vista (100)
- Hicks (100)
- Cooley Landing (100)
- SLAC (100)
- Jefferson (100)
- Burlingame (188)
- Martin (188)
- East Shore (100)
- San Mateo (100)
- Dumbarton (100)
- Los Esteros (100)
- Nortech (100)
- Dixon Landing (23)
- Tesla (125)
- Eight Mile (1100)
- Schulte (13)
- Vierra (3, 92)
- Miller (100)
- Salado (100)
- Salinas (100)
- Moss Landing (50)
- Hollister (164)
- Green Valley (100)
- Paul Sweet (13)
- Monta Vista (100)
- Hicks (100)
- Cooley Landing (100)
- SLAC (100)
- Jefferson (100)
- Burlingame (188)
- Martin (188)
- East Shore (100)
- San Mateo (100)
- Dumbarton (100)
- Los Esteros (100)
- Nortech (100)
- Dixon Landing (23)
- Tesla (125)
- Eight Mile (1100)
- Schulte (13)
- Vierra (3, 92)
- Miller (100)
- Salado (100)
- Salinas (100)
- Moss Landing (50)
- Hollister (164)
- Green Valley (100)
- Paul Sweet (13)
- Monta Vista (100)
- Hicks (100)
- Cooley Landing (100)
- SLAC (100)
- Jefferson (100)
- Burlingame (188)
- Martin (188)
- East Shore (100)
- San Mateo (100)
- Dumbarton (100)
- Los Esteros (100)
- Nortech (100)
- Dixon Landing (23)
- Tesla (125)
- Eight Mile (1100)
- Schulte (13)
- Vierra (3, 92)
- Miller (100)
- Salado (100)
- Salinas (100)
- Moss Landing (50)
- Hollister (164)
- Green Valley (100)
- Paul Sweet (13)
- Monta Vista (100)
- Hicks (100)
- Cooley Landing (100)
- SLAC (100)
- Jefferson (100)
- Burlingame (188)
- Martin (188)
- East Shore (100)
- San Mateo (100)
- Dumbarton (100)
- Los Esteros (100)
- Nortech (100)
- Dixon Landing (23)
- Tesla (125)
- Eight Mile (1100)
- Schulte (13)
- Vierra (3, 92)
- Miller (100)
- Salado (100)
- Salinas (100)
- Moss Landing (50)
- Hollister (164)
- Green Valley (100)
- Paul Sweet (13)
- Monta Vista (100)
- Hicks (100)
- Cooley Landing (100)
- SLAC (100)
- Jefferson (100)
- Burlingame (188)
- Martin (188)
- East Shore (100)
- San Mateo (100)
- Dumbarton (100)
- Los Esteros (100)
- Nortech (100)
- Dixon Landing (23)
- Tesla (125)
- Eight Mile (1100)
- Schulte (13)
- Vierra (3, 92)
- Miller (100)
- Salado (100)
- Salinas (100)
- Moss Landing (50)
- Hollister (164)
- Green Valley (100)
- Paul Sweet (13)
- Monta Vista (100)
- Hicks (100)
- Cooley Landing (100)
- SLAC (100)
- Jefferson (100)
- Burlingame (188)
- Martin (188)
- East Shore (100)
- San Mateo (100)
- Dumbarton (100)
- Los Esteros (100)
- Nortech (100)
- Dixon Landing (23)
- Tesla (125)
- Eight Mile (1100)
- Schulte (13)
- Vierra (3, 92)
- Miller (100)
- Salado (100)
- Salinas (100)
- Moss Landing (50)
- Hollister (164)
- Green Valley (100)
- Paul Sweet (13)
- Monta Vista (100)
- Hicks (100)
- Cooley Landing (100)
- SLAC (100)
- Jefferson (100)
- Burlingame (188)
- Martin (188)
- East Shore (100)
- San Mateo (100)

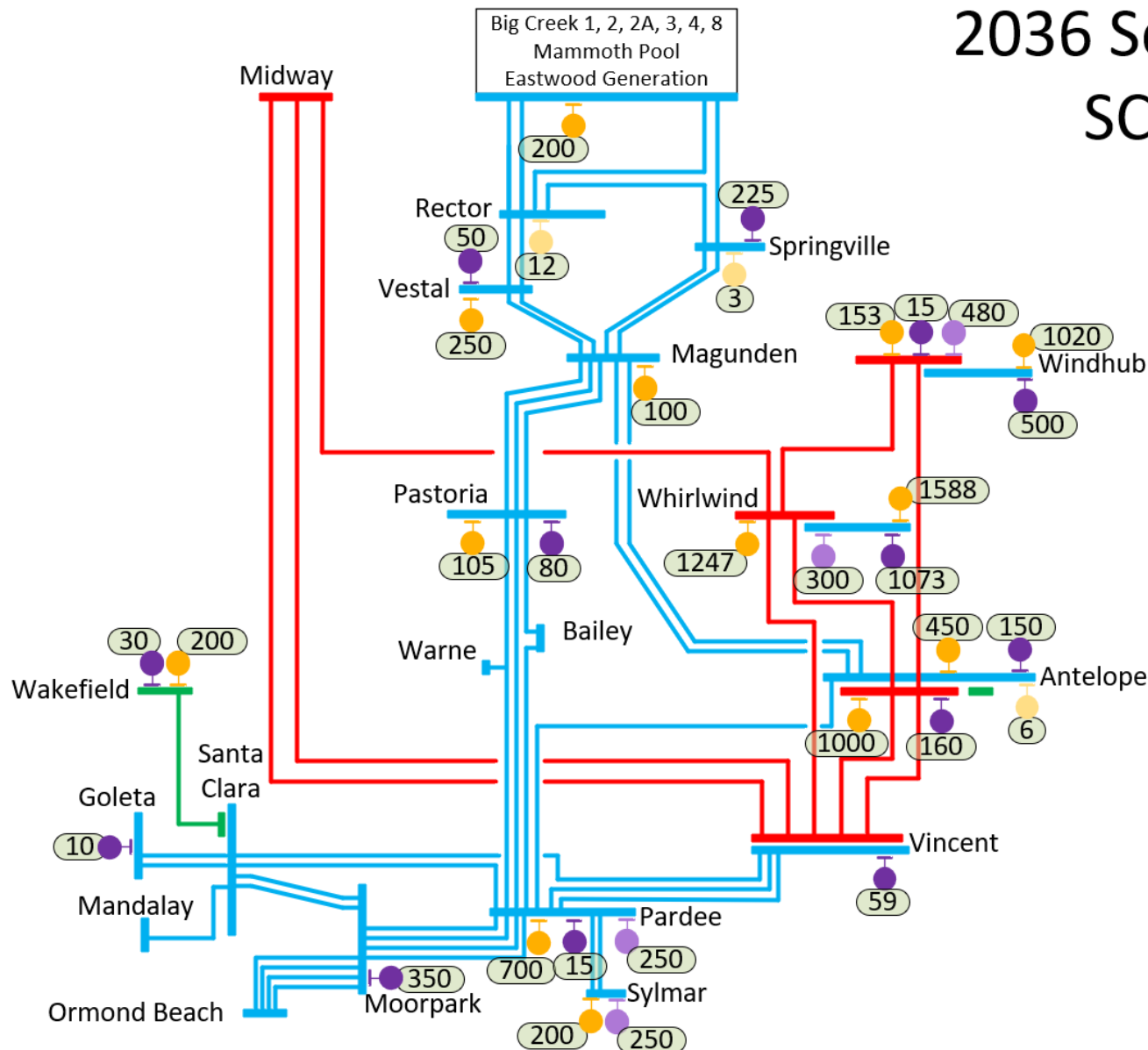
2036 Sensitivity Case – PG&E Fresno



2036 Sensitivity Case – PG&E Kern



2036 Sensitivity Case – SCE Northern



Legend:

500 kV —

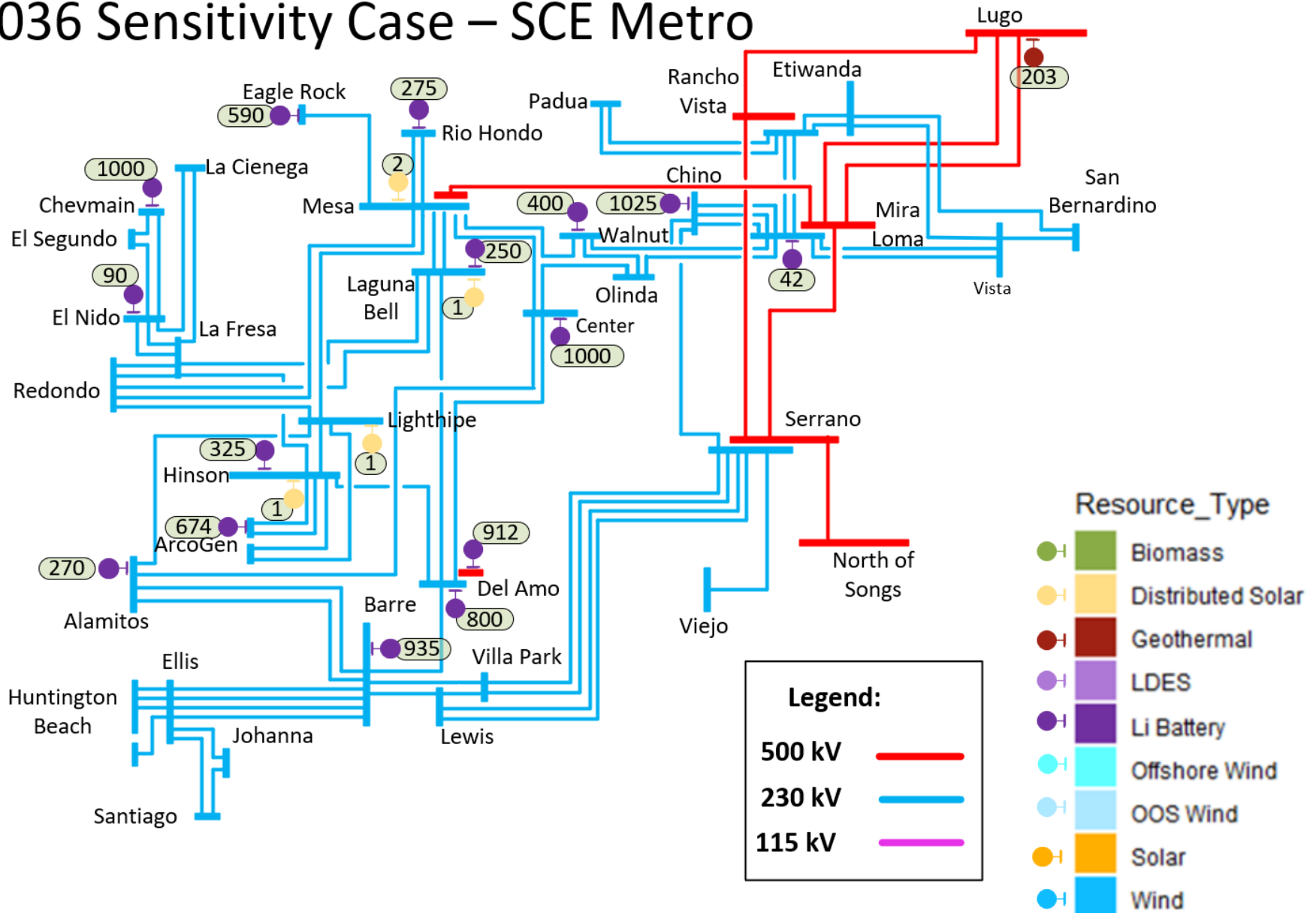
230 kV —

66 kV —

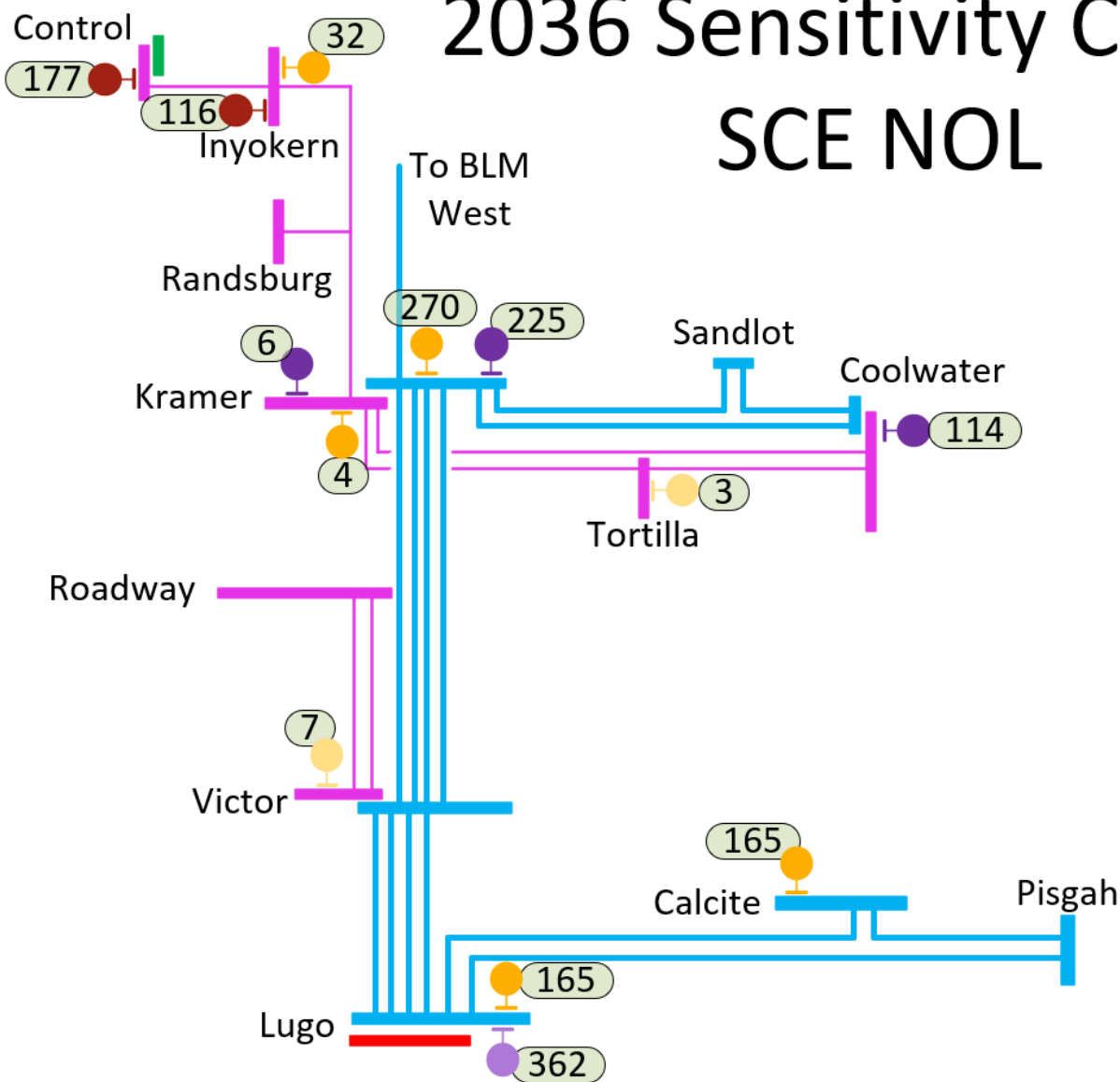
Resource_Type

- Biomass
- Distributed Solar
- Geothermal
- LDES
- Li Battery
- Offshore Wind
- OOS Wind
- Solar
- Wind

2036 Sensitivity Case – SCE Metro



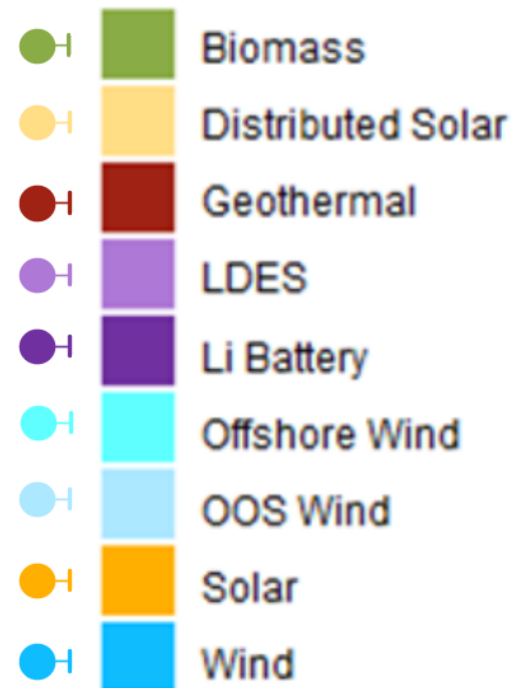
2036 Sensitivity Case – SCE NOL



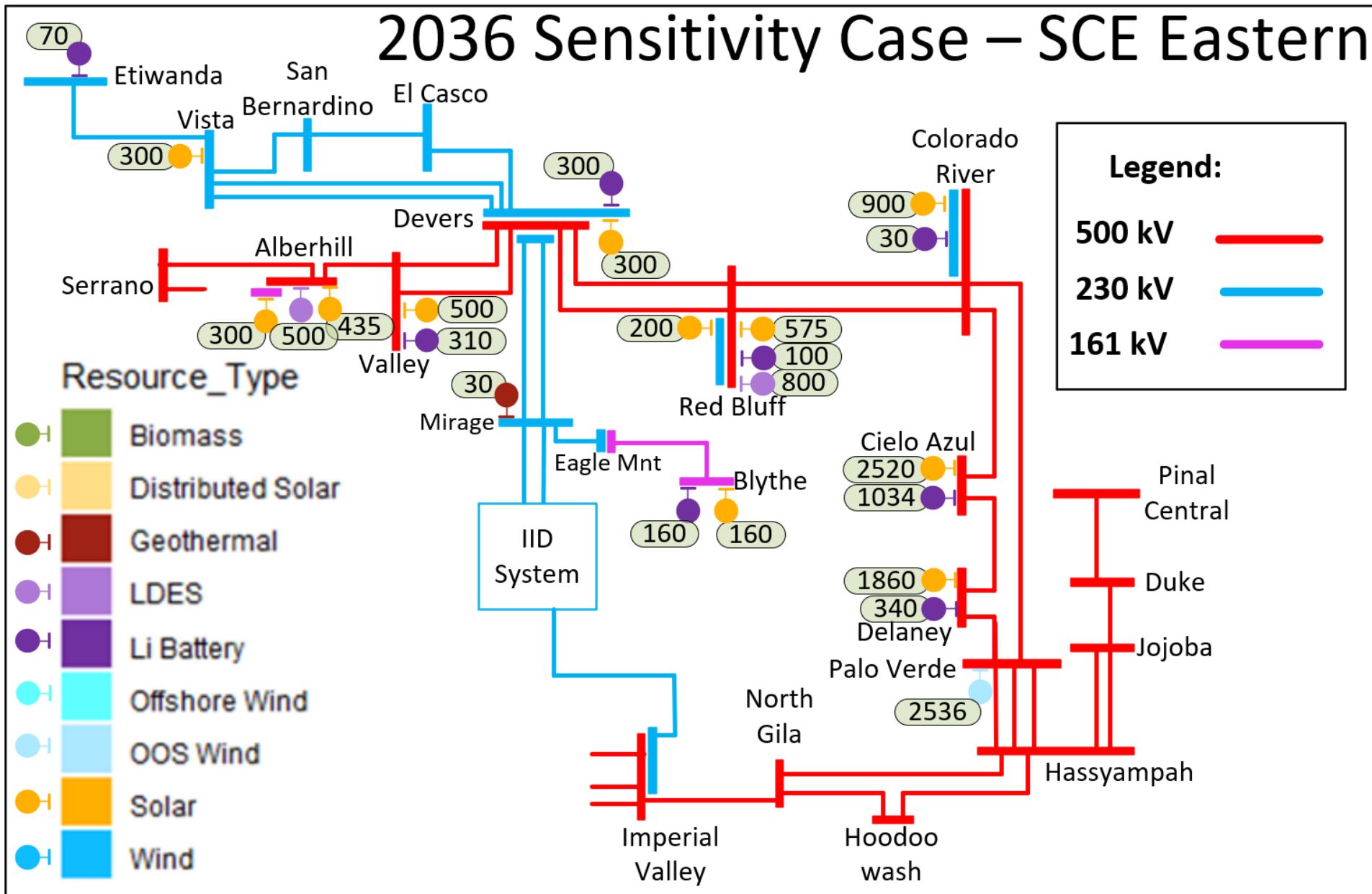
Legend:

500 kV —
230 kV —
115 kV —

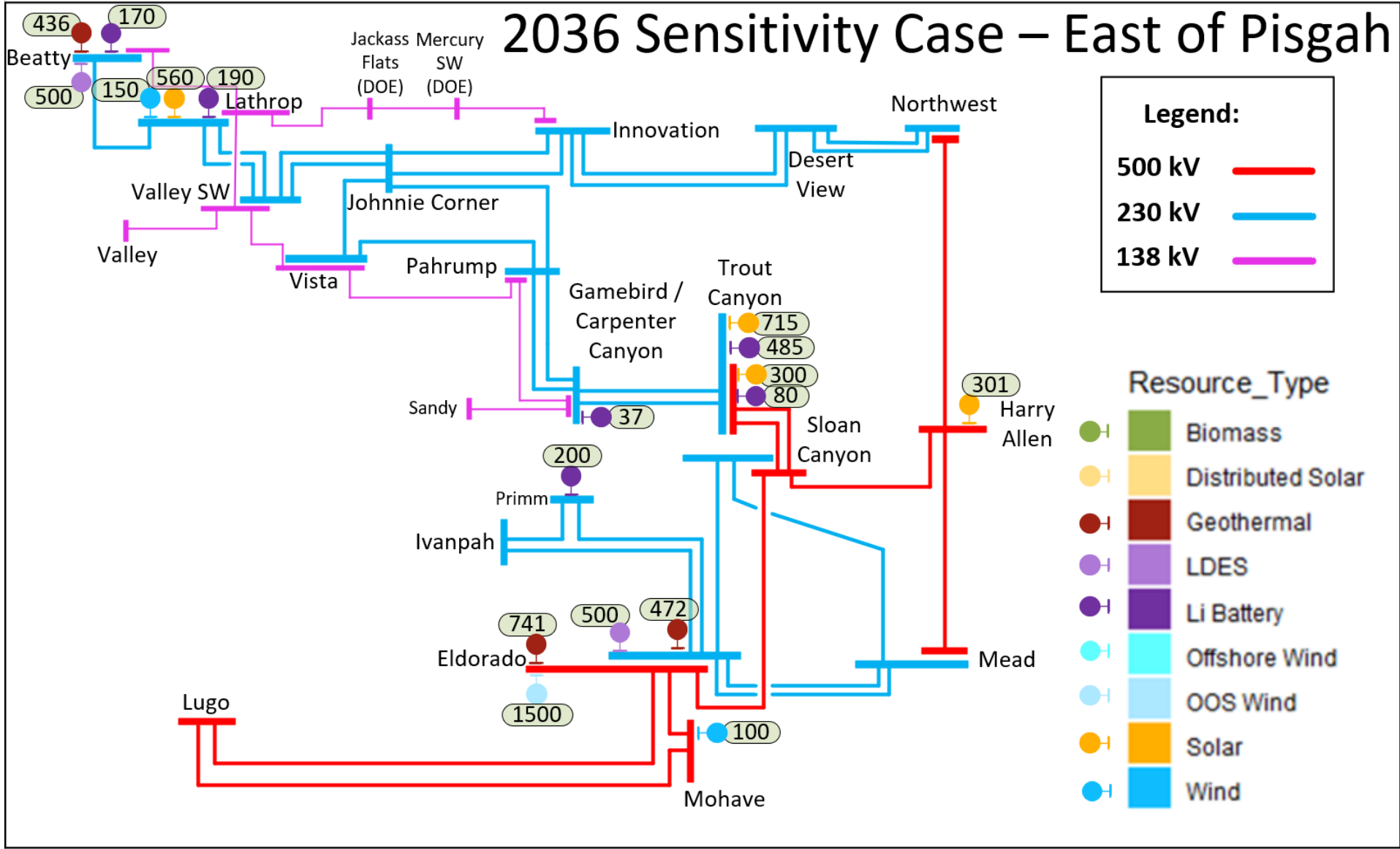
Resource_Type



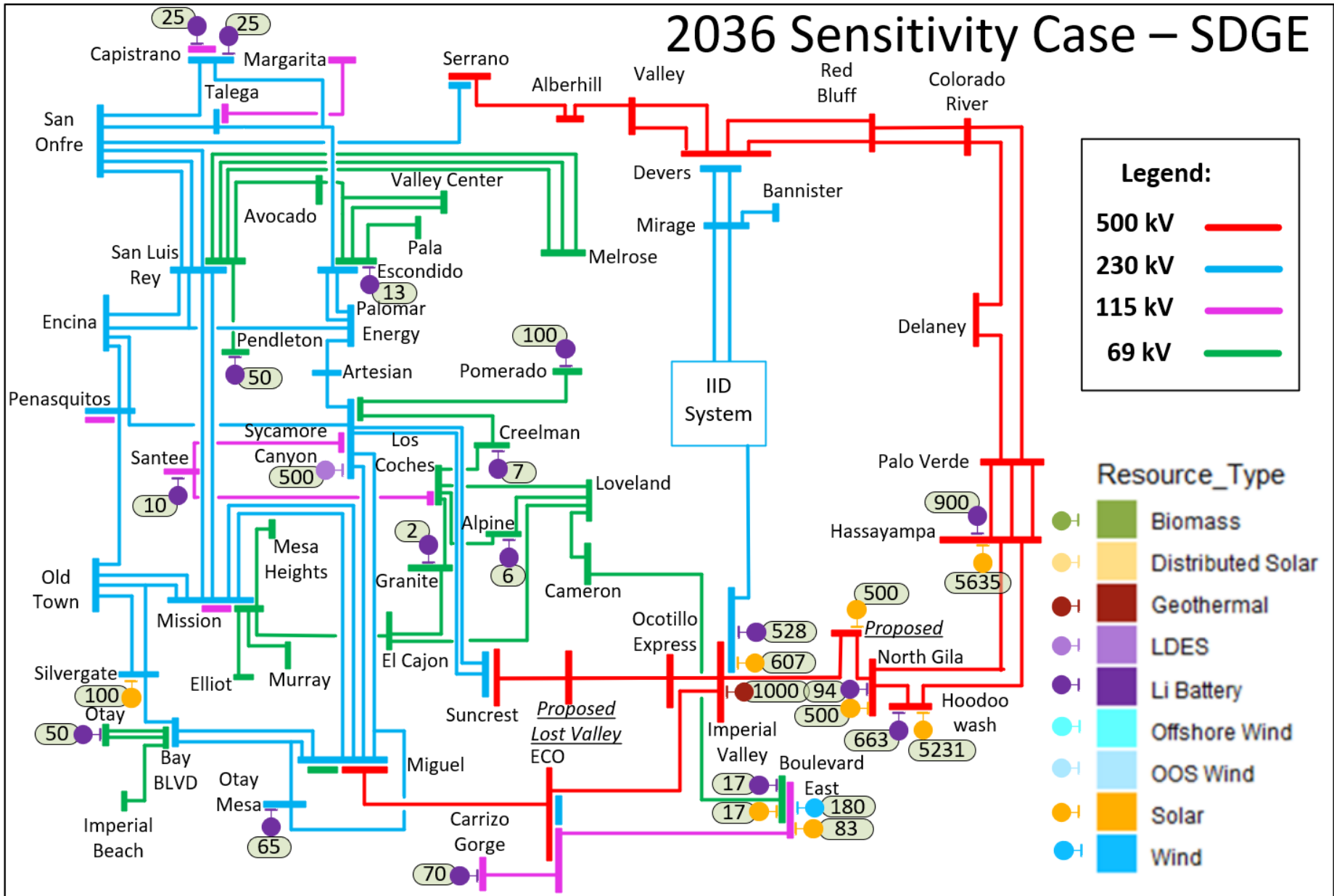
2036 Sensitivity Case – SCE Eastern



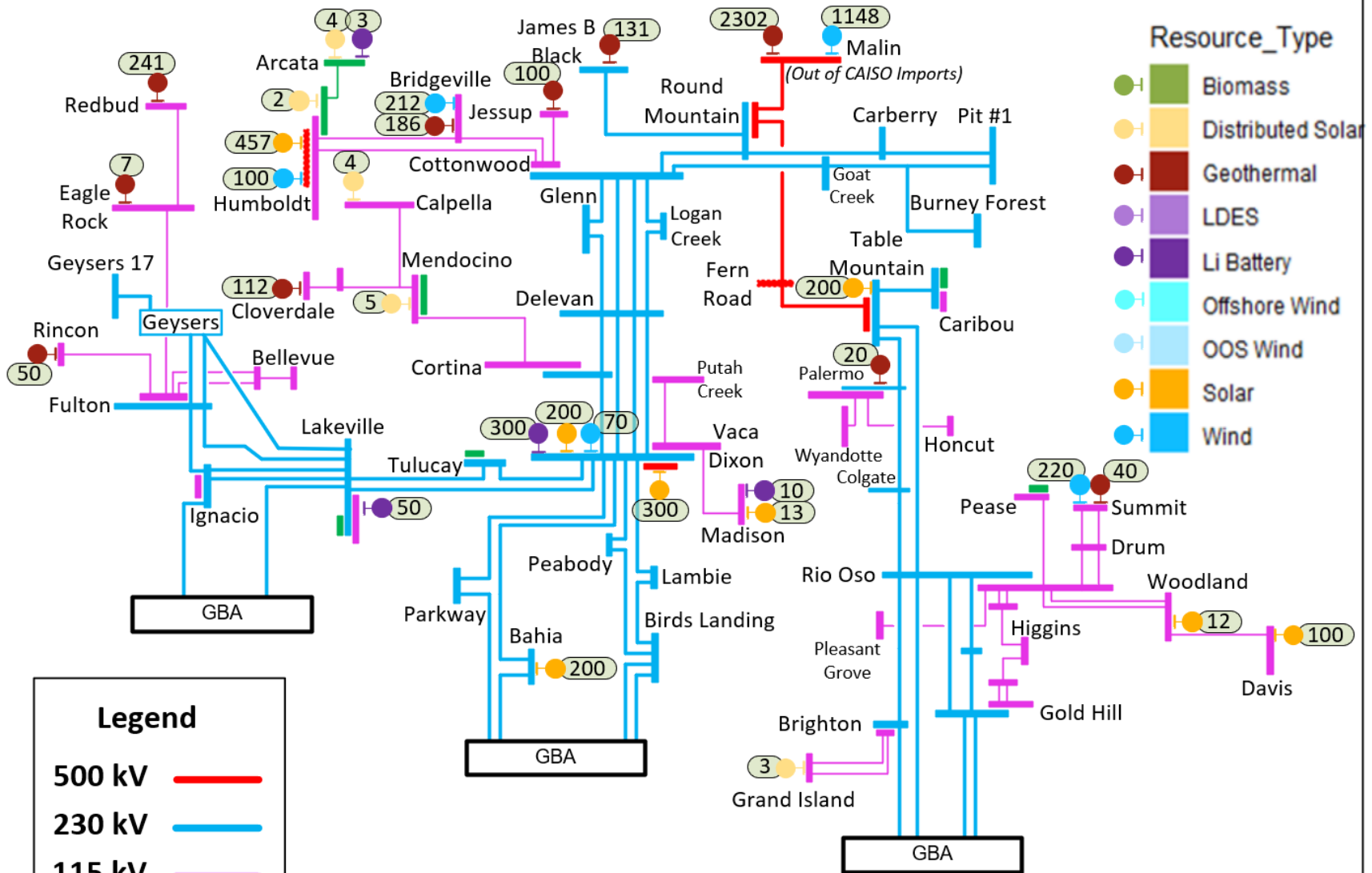
2036 Sensitivity Case – East of Pisgah



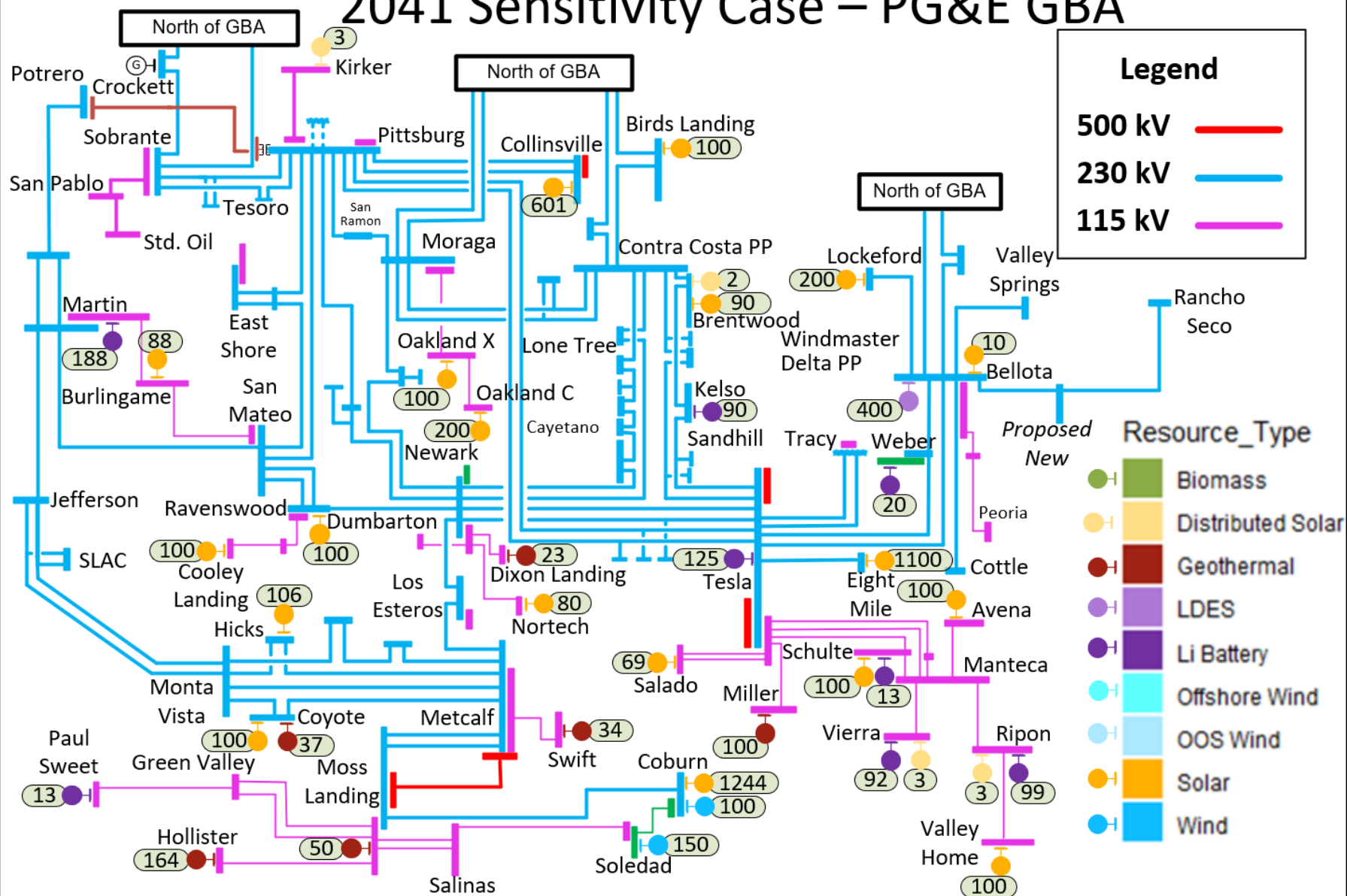
2036 Sensitivity Case – SDGE



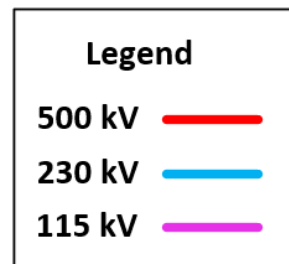
2041 Sensitivity Case – PG&E NGBA



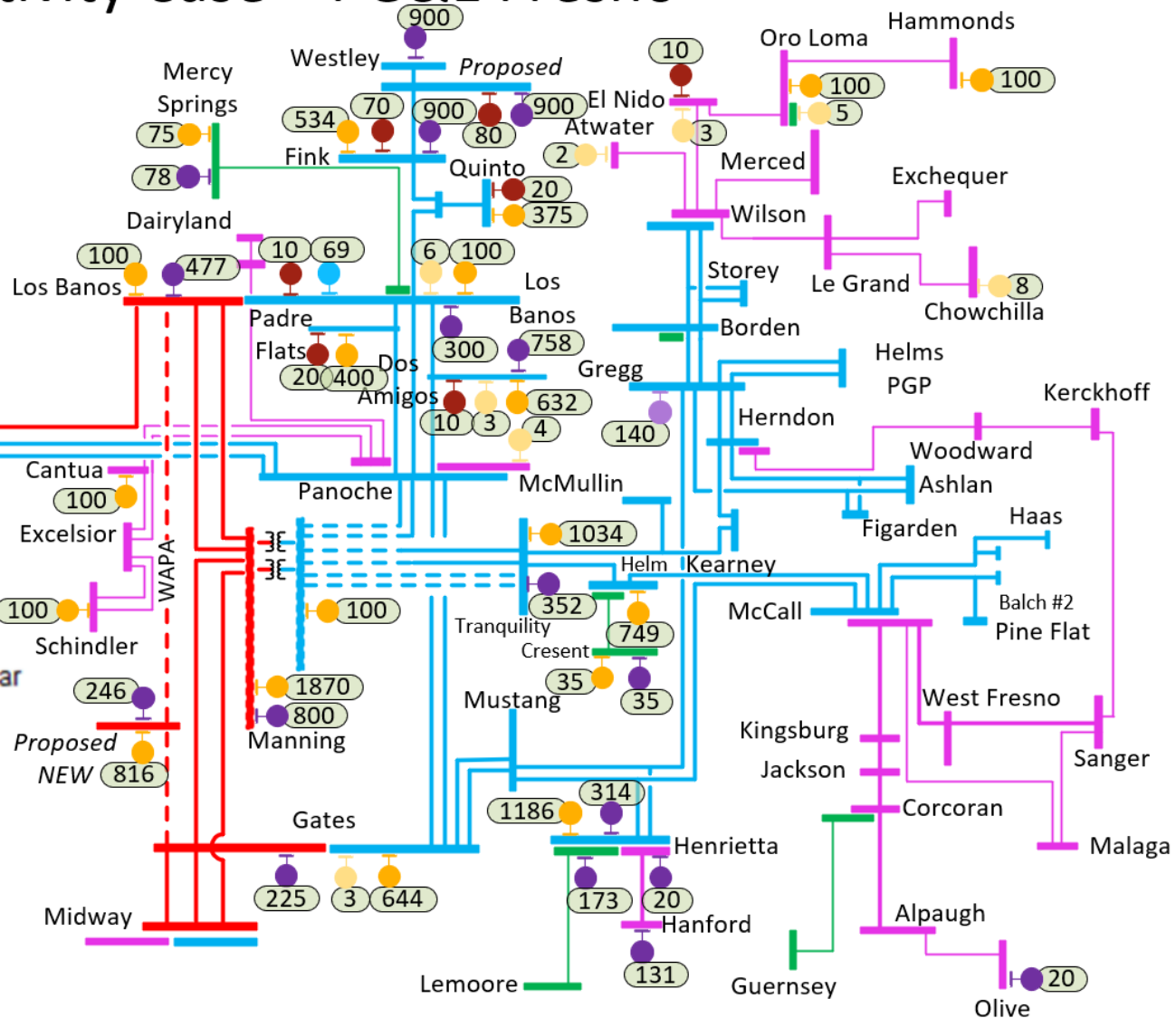
2041 Sensitivity Case – PG&E GBA



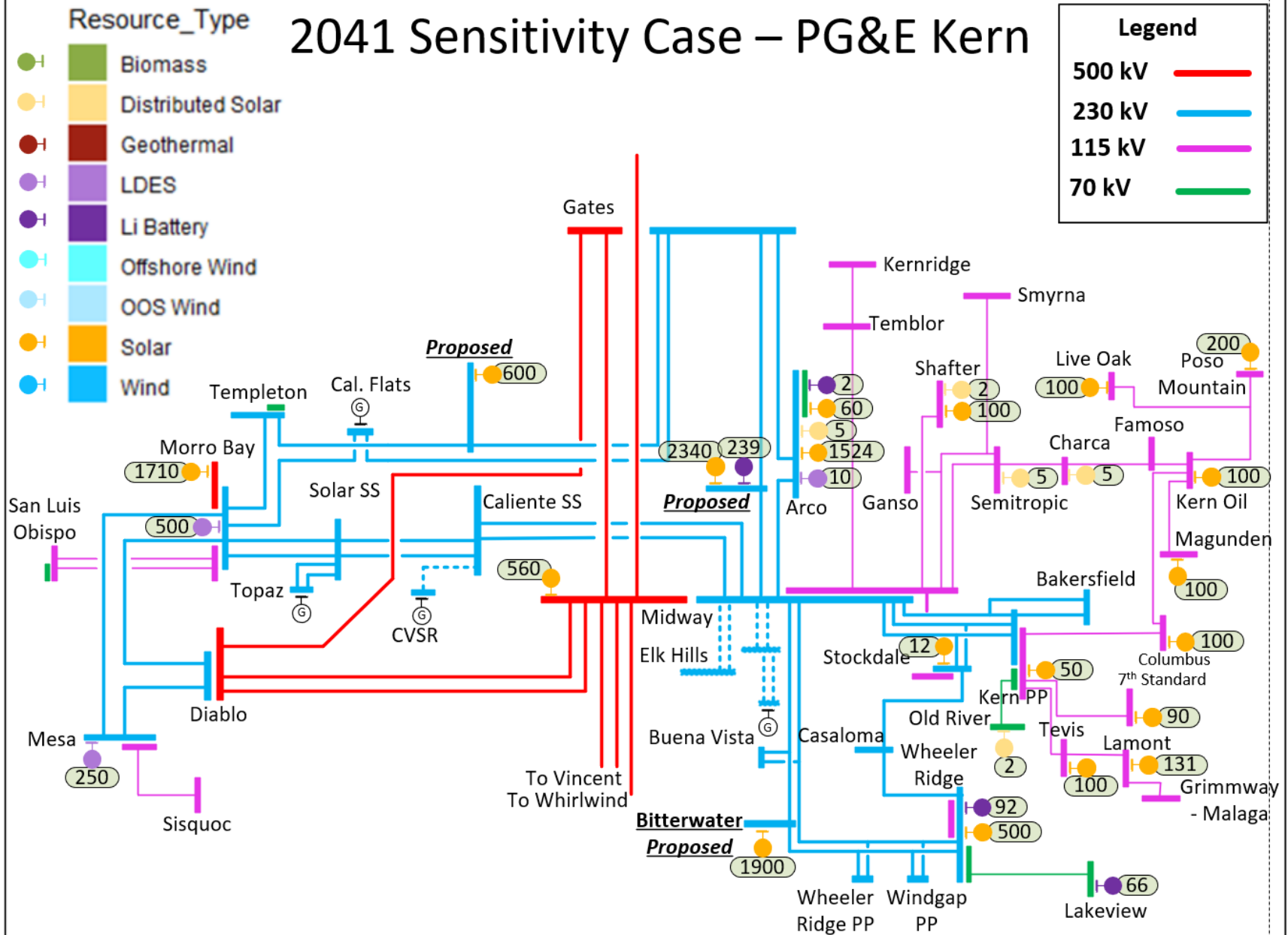
2041 Sensitivity Case – PG&E Fresno



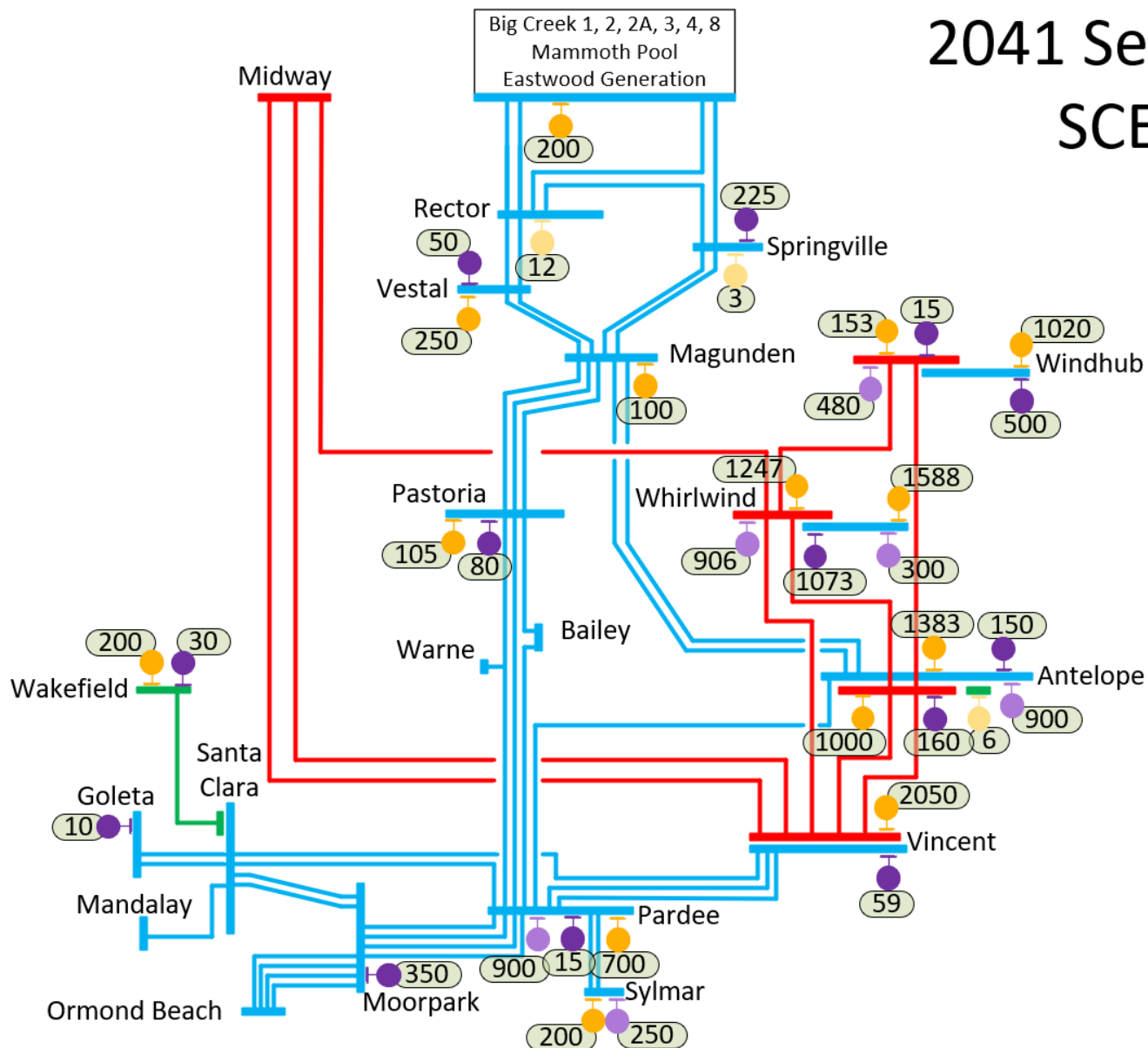
Resource_Type



2041 Sensitivity Case – PG&E Kern



2041 Sensitivity Case – SCE Northern



Legend:

500 kV

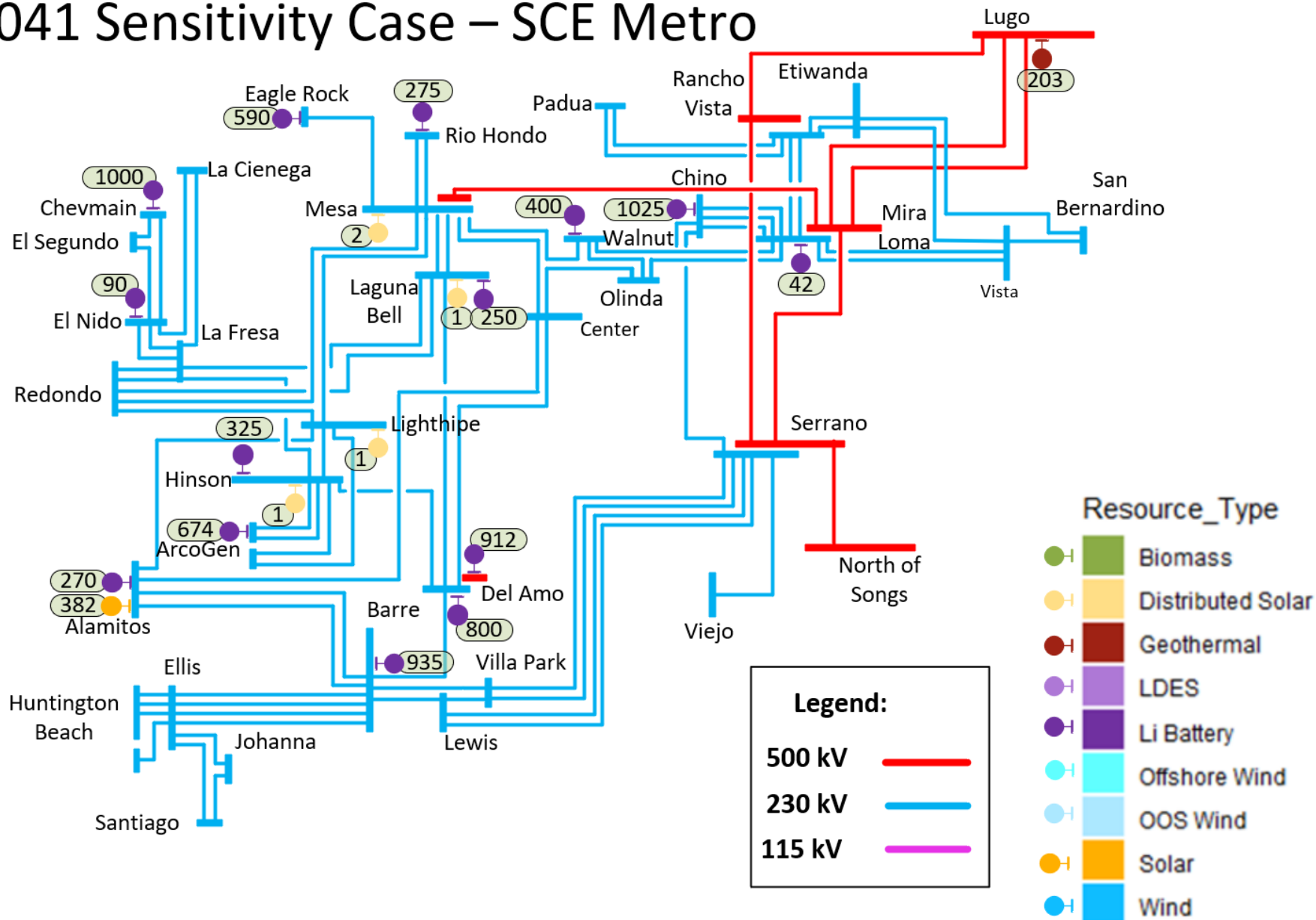
230 kV

66 kV

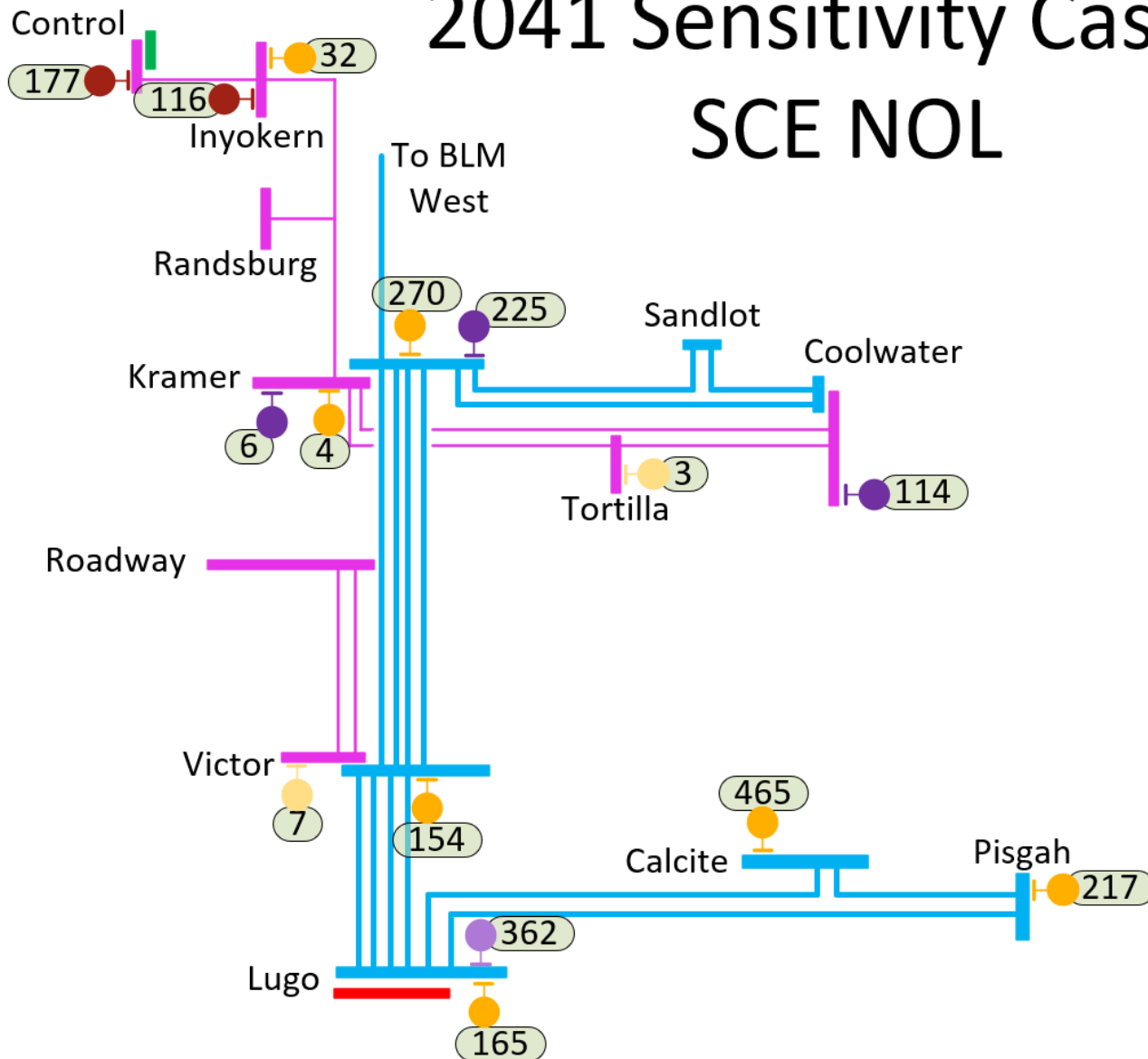
Resource_Type

		Biomass
		Distributed Solar
		Geothermal
		LDES
		Li Battery
		Offshore Wind
		OOS Wind
		Solar
		Wind

2041 Sensitivity Case – SCE Metro



2041 Sensitivity Case – SCE NOL



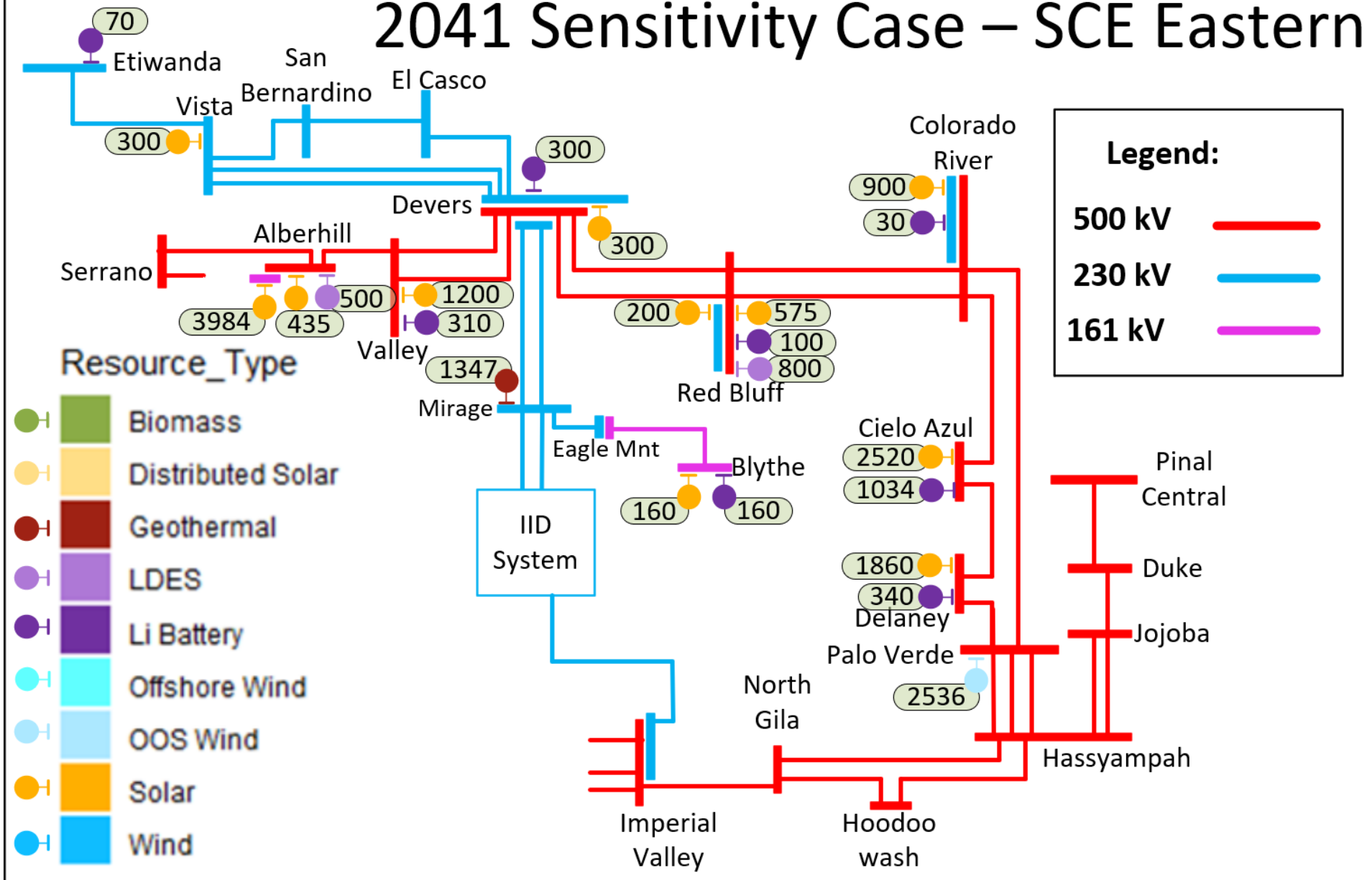
Legend:

500 kV —
230 kV —
115 kV —

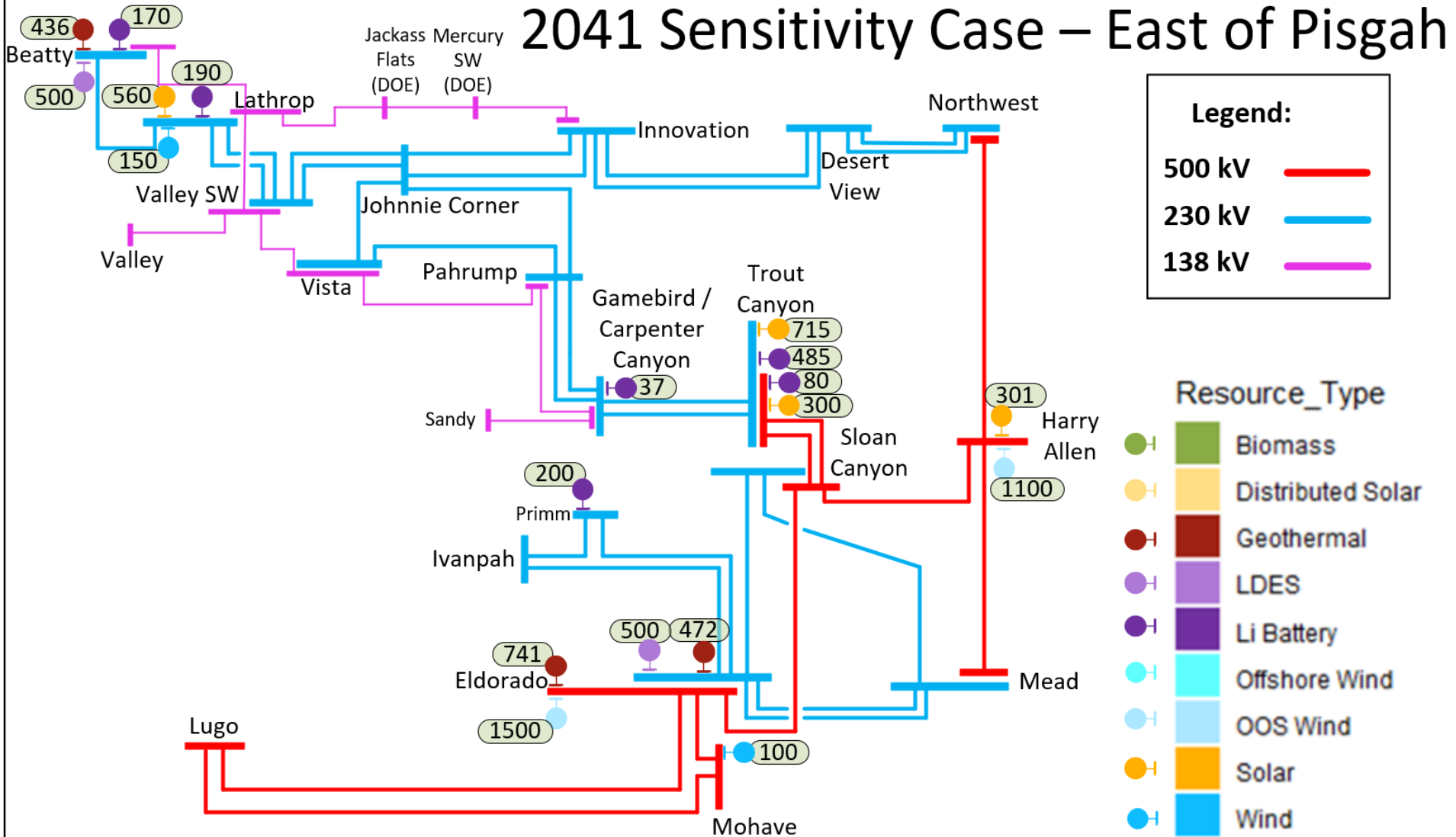
Resource_Type

● Biomass
● Distributed Solar
● Geothermal
● LDES
● Li Battery
● Offshore Wind
● OOS Wind
● Solar
● Wind

2041 Sensitivity Case – SCE Eastern



2041 Sensitivity Case – East of Pisgah



2041 Sensitivity Case – SDGE

