Santa Cruz Continuity of Service

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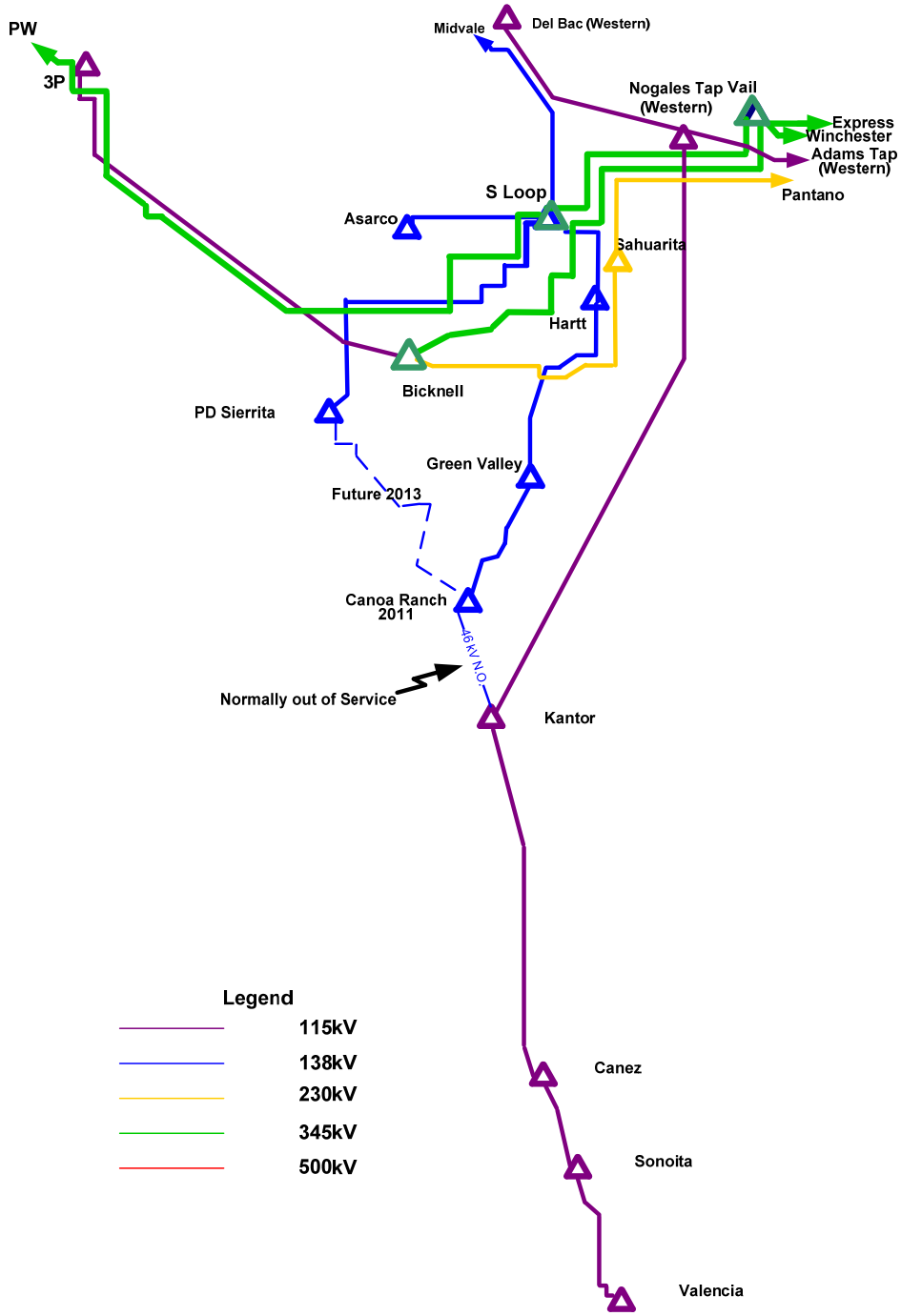


EXISTING SANTA CRUZ TRANSMISSION SYSTEM

<u>Existing 115kV NITS from WAPA</u>

Nogales Tap Switchyard – Valencia Substation (53 Miles)

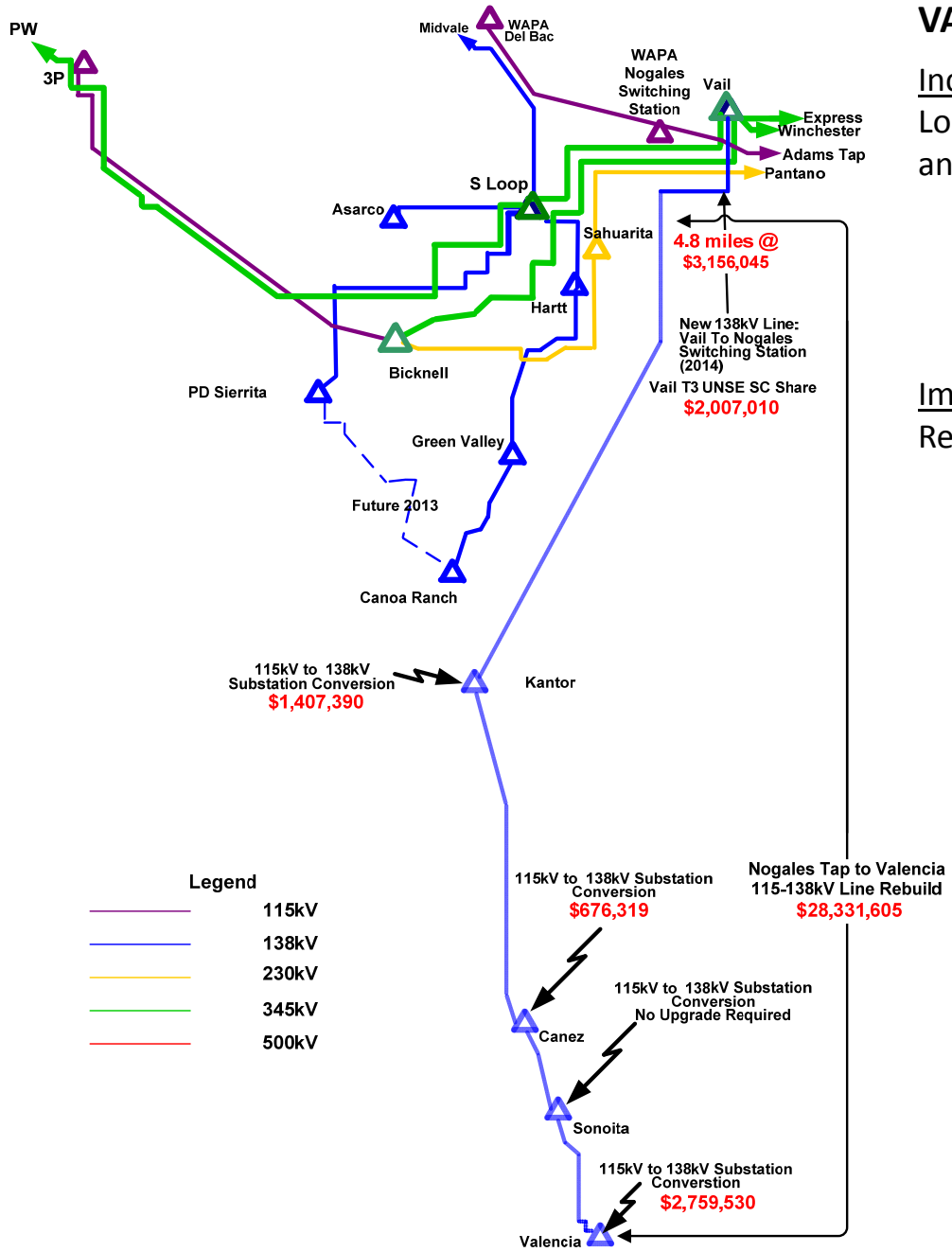
Four Substations at Kantor, Canez, Sonoita & Valencia

Load serving capability through combination of transmission and generation exceeds 100 MW.

> 115kV SIL from Nogales Tap = 48 MW or SC load of 46 MW [RMR Report Filed January 2012]

<u>Timely restoration of service</u>

Procedures for timely restoration of service are in place for virtually all outage conditions, which include Black Start capabilities at the Valencia Substation and distribution system switching.



*All Costs are estimates and are intended for Transmission Planning and not budgeting.
Total includes Land and Environmental Costs

VAIL TO VALENCIA 138 KV CONVERSION

<u>Increases import and load service capability</u>

Load serving capability through combination of transmission and generation approaches 160 MW.

115kV SIL from Vail = 87 MW (SC studied load of 84 MW) - Actual SIL will be higher.

RMR may be avoided for approximately 10 years

<u>Improves Reliability</u>

Replacement of transmission line and substation facilities

Improvements Since Citizens Acquisition

- Improvements at the Valencia Generating Station;
- Addition of remote start capability at Valencia;
- Upgrades to the UNS Electric link to the Western Area Power Administration ("WAPA") transmission system;
- Addition of station service diesel generation; and
- Improvements to communications systems, outage management systems, switching capabilities, transformers and other operational improvements.

Further Improvement through the Vail – Valencia 138kV Conversion

- Improve reliability
- Increase transmission system import capability
- Maximize total load serving capability
- Reduce the need to rely on output from the Valencia Generation

- Conversion Project to be in service by May 2014
  - Estimated at $38 million

Second Line Not Justified

- Combination of revised operating procedures and infrastructure investments results in substantial reliability improvement reduction in restoration time
- Second line would cost more than $79 million
- Not cost effective for rural areas such as Santa Cruz County
  - Disproportionate cost per customer
  - Potential for a slight improvement in service to Santa Cruz County is not enough to justify the $79 million addition to rate base