

PG&E's 2012 Request Window Proposals

Central Coast/Los Padres

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Transmission Projects Overview

Projects Seeking CAISO Approval

- Diablo Canyon Voltage Support
- Midway-Mesa 230 kV Line



Diablo Canyon Voltage Support

Background

- Diablo Canyon Power Plant (DCPP) consists of two nuclear reactors which each have a gross output of approximately 1,190 MW.
- Each nuclear unit has approximately 50 MW of auxiliary plant load which is normally served from the 500 kV system.

Assessment

- Planning studies have concluded that a single line outage of the Morro Bay-Diablo 230 kV Line would result in low voltage conditions when both auxiliary plant loads are served via the 230 kV system.
- The resulting low voltage can be below the required voltage requirements specified in the Nuclear Plant Interface Coordination Agreement with DCPP

Scope

- The project scope is to install a new +150/-75 MVAR Reactive Support Device(s) at Diablo Canyon 230 kV Substation and construct the associated bus upgrades.

Other Alternatives Considered

- Status Quo
- Loop Morro Bay-Mesa 230 kV Line into Diablo Canyon

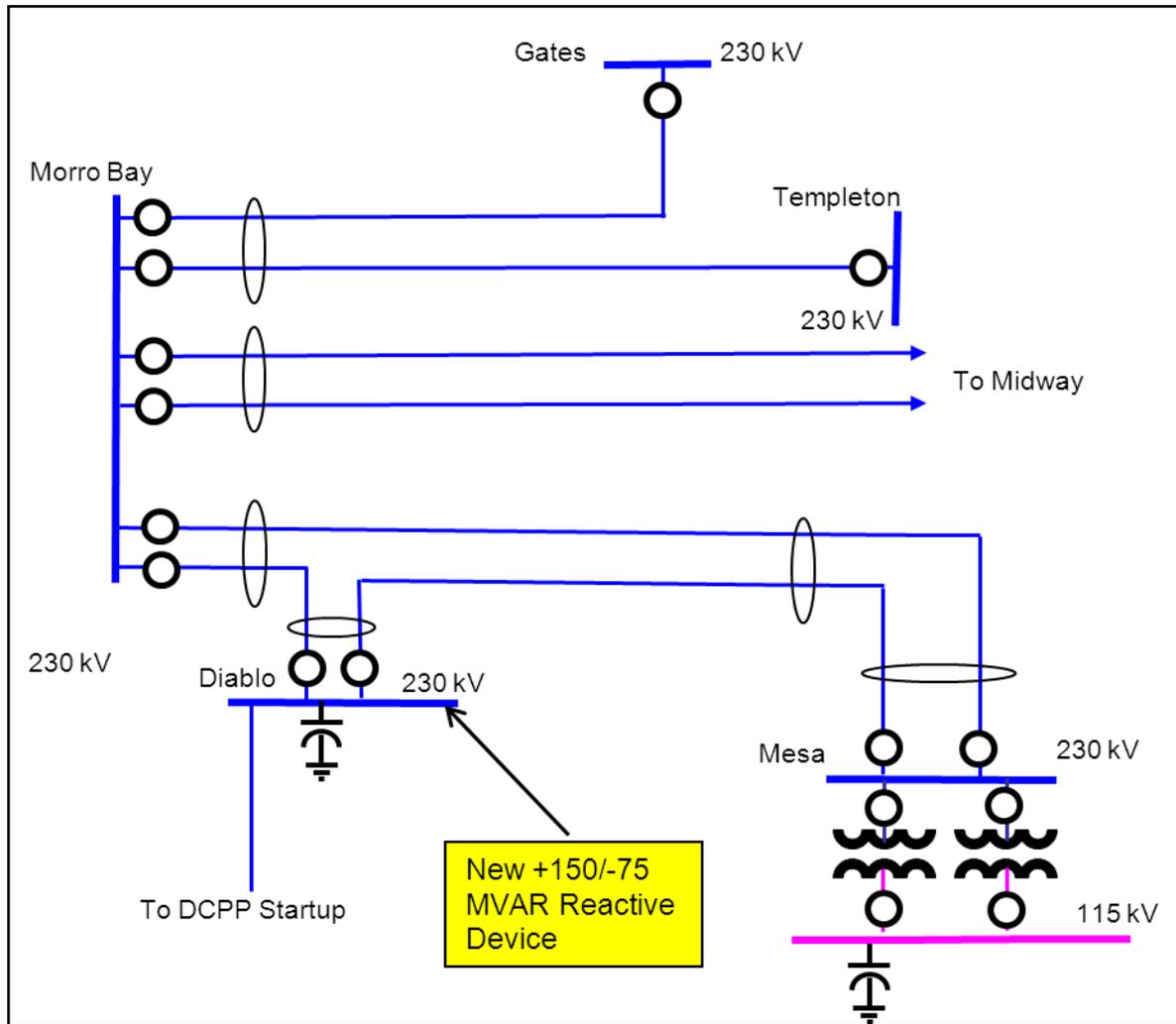
In Service Date

- May 2016

Cost

- \$35M - \$45M

Diablo Canyon Voltage Support





Midway-Mesa 230 kV Line

Background

- The Southern Mesa 115 kV transmission system provides electric service to about 95,000 customers in San Luis Obispo and Santa Barbara County.
- The Los Padres Special Protection Scheme (SPS) was installed in May 2011 to temporarily mitigate these conditions by dropping load in the area to ensure that the voltage collapse does not propagate outside the area.

Assessment

- Planning studies have concluded that an outage of the Morro Bay-Mesa and Diablo-Mesa 230 kV (DCTL) or Morro Bay–Diablo and Morro Bay-Mesa (DCTL) would result in the loss of over 260 MW of load.
- In addition, there are concerns with the ability to serve the area load during planned upgrades or maintenance work on the 230 kV Lines in the area and in the event of the next worst single contingency. This makes it difficult to grant the required clearances.

Scope

- The project scope is to construct a new 230 kV line between Midway and Mesa Substations.

Other Alternatives Considered

- Status Quo
- Midway-Mesa 230 kV with switching station and new 115 kV sources
- Construct 230 kV Line from Morro Bay to Mesa substations.

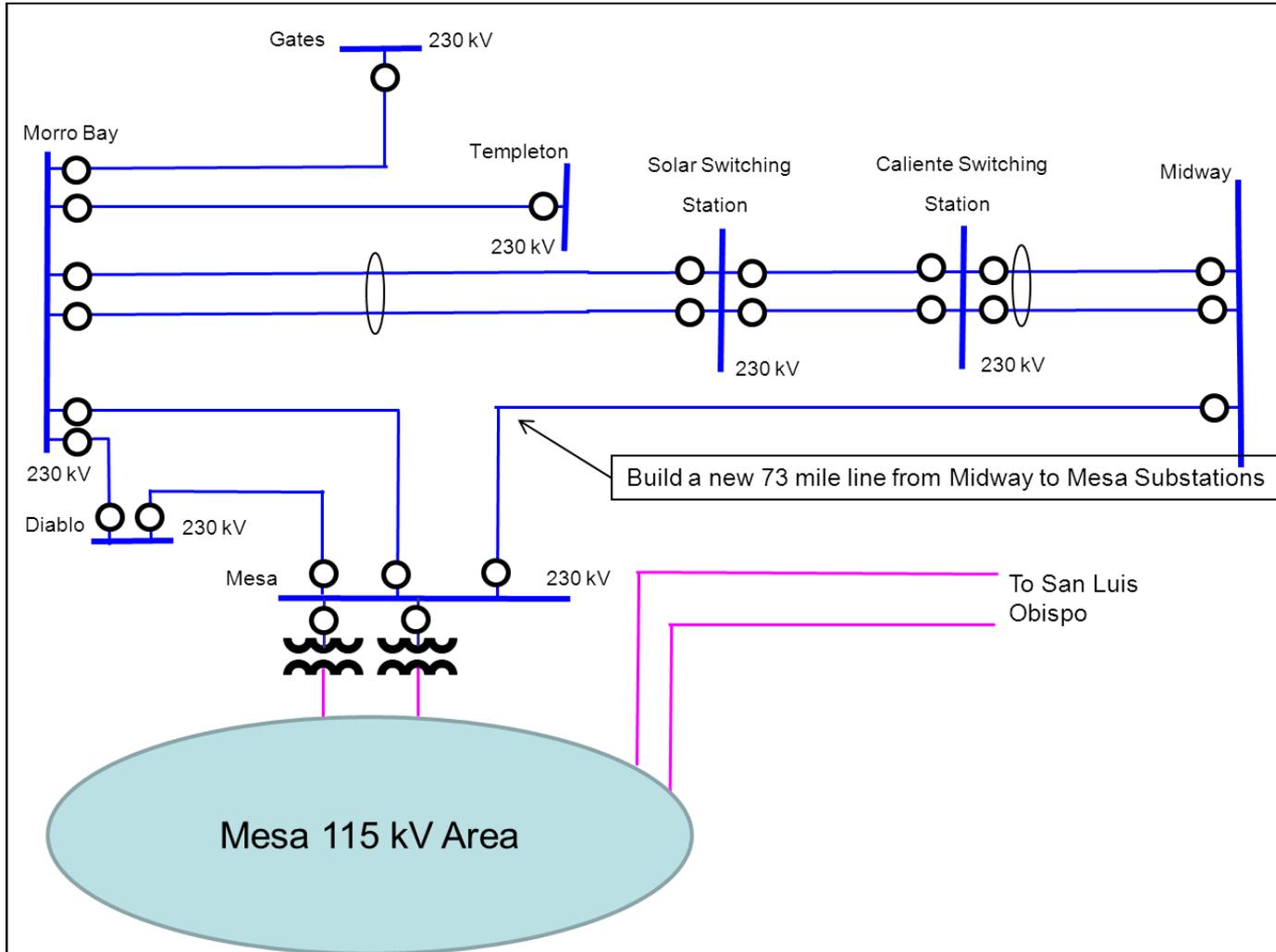
In Service Date

- May 2019

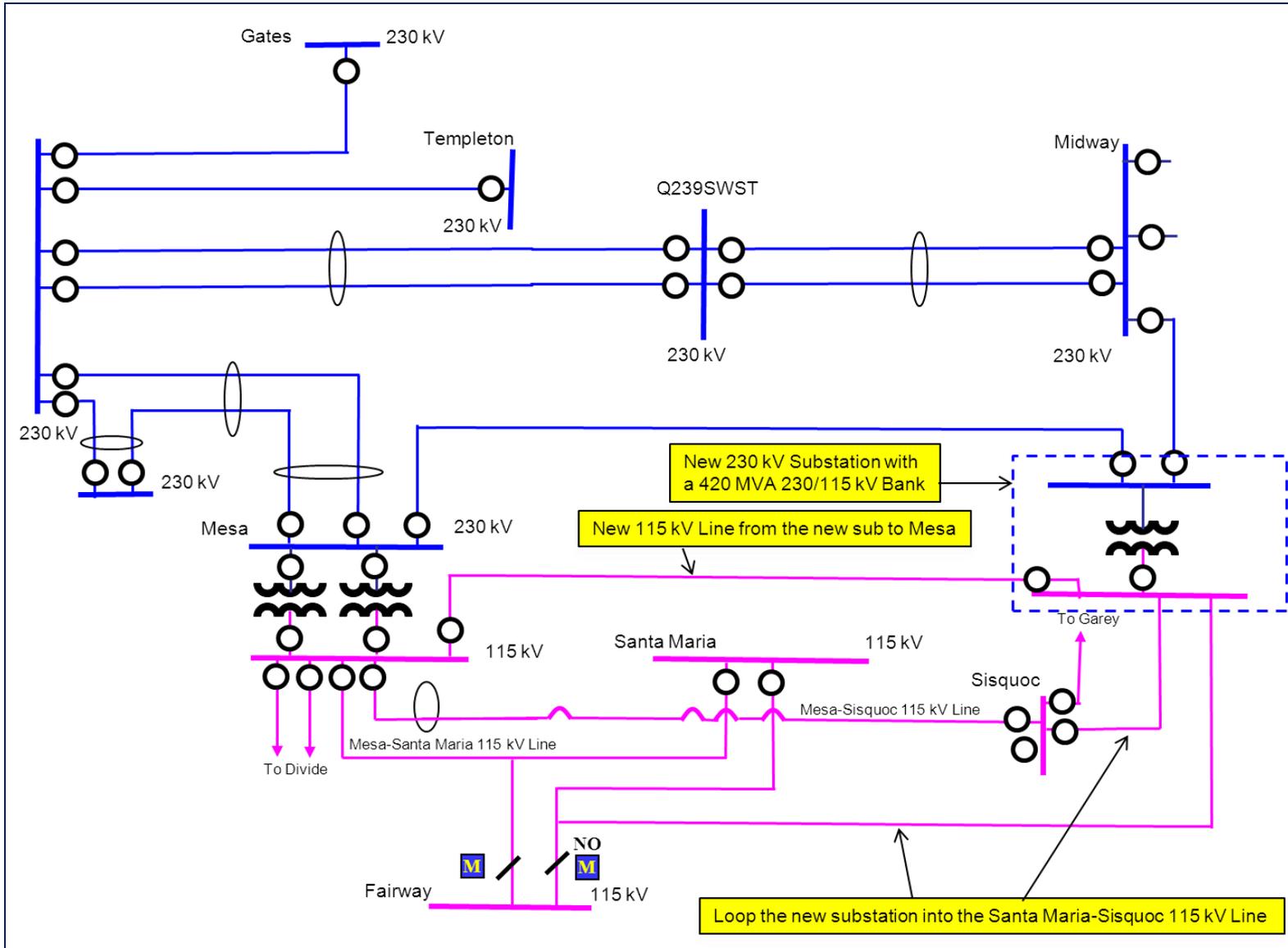
Cost

- \$90M - \$120M

Midway-Mesa 230 kV Line



Alternative 2



Thank You

