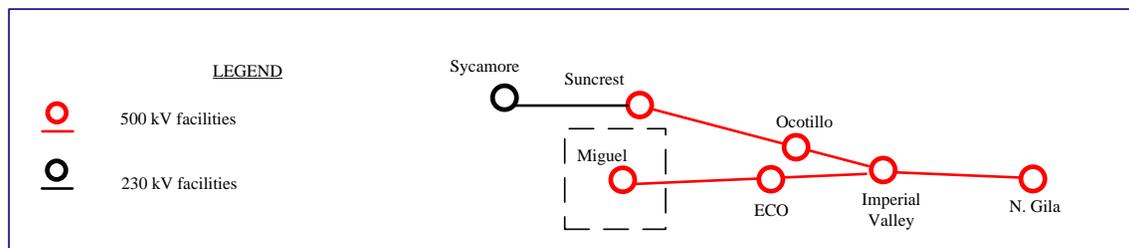


# **Miguel 500 kV 375 MVar Reactive Power Support Description and Functional Specifications for Competitive Solicitation**

## 1. Description

In the 2013-2014 Transmission Plan, the ISO has identified a reliability-driven need for a 375 MVar reactive power support connecting to the Miguel 500 kV bus as depicted below:



The reactive power support is required to provide continuous reactive power support. It can be one of the following types of devices SVC (Static VAR Compensator), STATCOM (Static Synchronous Compensator), or Synchronous Condenser. The ISO estimates that the proposed reactive power support will approximately cost \$30-\$40 million.

SDG&E will design, engineer, install, own, operate, and maintain the necessary equipment additions within Miguel substation. The substation terminations and line drops into the substations are not part of the scope of work included in the competitive solicitation.

A 500 kV tie-line from the reactive power support project to Miguel Substation will be the responsibility of the approved project sponsor. The ISO is working with SDG&E to identify a general area (e.g. the northwest corner, south side, etc.) of the Miguel Substation where the terminal line structure for the tie-line should be located. The approved project sponsor will own, operate and maintain all transmission facilities from the reactive support up to and including the terminal line structure. SDG&E will own, operate and maintain the transmission facilities from the terminal structure into Miguel substation.

## 2. Functional Specifications

### Reactive Power Support Functional Specification

Point of Interconnection: Miguel 500 kV bus

Rated MVAR: +375 at the Miguel 500 kV bus

Nominal Terminal Voltage: 500 kV

Latest in Service Date: June 1, 2017