

CHAPTER 2

Purpose and Need

2.1 WESTERN'S PURPOSE AND NEED FOR THE PROPOSED ACTION

2.1.1 BACKGROUND

Western's CVP transmission lines form a critical part of the Sacramento area transmission grid. Western's transmission system is used to transmit power to Western's customers and import power from outside the region when hydropower generation is not adequate to meet Western's contractual delivery commitments. Western's transmission system is part of an interconnected transmission system, which enhances transmission system reliability and operation. Growth in the greater Sacramento, California area, and power imported from generation outside the region, have increased the demand on the interconnected electric transmission system, leading to transmission system overloads as described in Section 1.0. The transmission lines have reached their maximum transfer limits for serving existing needs. Area utilities have taken interim measures, such as load shedding, to manage peak power demands and avoid uncontrolled, system-wide outages. These situations have impacted the reliability and security of Western's power system, particularly during summer peak periods.

In response to the system overload, and as the operator of the CVP transmission system, Western has participated in transmission system studies with other area transmission system owners and power providers to address solutions to the transmission system overloading. In pursuing transmission system improvements, Western must ensure that the system is operated in accordance with strict reliability standards established by the North American

Electric Reliability Council (NERC) and the Western Electricity Coordinating Council (WECC). Western must meet its contractual obligations.

The results of Western's short- and long-term transmission planning studies, as well as other transmission impact studies for transmission line interconnection requests, have shown the need for transmission system additions and upgrades to maintain power system security and reliability.

2.1.2 NEED FOR THE PROPOSED ACTION

Western transmission system studies have identified a need for short-term transmission line enhancements to maintain CVP transmission security and reliability. The enhancements include a transmission system addition between O'Banion Substation and Elverta Substation and an upgrade of existing 230-kV transmission in the Sacramento area.

These transmission enhancements and additions must be implemented within the next five years.

2.1.3 PURPOSES FOR THE PROPOSED ACTION

To continue to meet Western's mission, purposes for the Proposed Action include:

1. Maintaining CVP transmission system security and reliability.
2. Meeting Western's legislative and contractual requirements.
3. Meeting NERC and WECC operating criteria.