

Mason & Smith Valleys Transmission Project

A Brief Overview

Need for the Project

The Mason substation is proposed as a replacement for the Anaconda and Bridge Street substations that no longer meet National Electrical Safety standards due to age and construction and/or cannot be expanded due to parcel size constraints.

The Smith Valley transmission line is proposed to alleviate low voltage and reliability issues experienced by our customers in Smith Valley / Topaz Ranch Estates area.

Need for the Project

Customers in the area have filed numerous complaints with the Nevada Public Utility Commission resulting in a PUCN Resolution, which requires NV Energy to address these issues.

Smith Valley and the surrounding communities are the only significant electrical load area without some type of electrical transmission line.

The Three Existing 60kV Transmission Lines



Electrical power to the Yerington, Mason and Smith Valley areas is presently delivered by three 60kV transmission lines known as the 601, 636, and 638.

The Anaconda Substation



The three transmission lines terminate at the Anaconda substation.

The substation, located near Weed Heights, is nearly surrounded by the Anaconda Mine Superfund Site and does not provide sufficient space to rebuild the substation.

The Bridge Street Substation

A single 60 kV transmission line (637 Line) delivers electrical power from the Anaconda substation to the Bridge Street substation.



The Bridge Street substation was constructed in the early 1960's and no longer meets National Electrical Safety Standards. The substation's parcel size is insufficient to build a substation that replace both the Bridge Street and Anaconda substations.

The Proposal – Mason 60 kV Transmission Corridor



Visual Simulation

NV Energy proposed to extend the three 60 kV transmission lines from where the three lines meet to the proposed Mason substation to be located approximately 2.3 miles to the south. The route proposed follows an existing access road. One structure will support two circuits, the other will be a single circuit and will resemble the picture to the left.

To accommodate future growth in the area and to meet avian protection standards the structures will be build at 120 kV, but will be operated at 60 kV for the near future.

Double Circuit 120 kV Line with Distribution Underbuild



Additional Mason Valley Transmission Corridor Views



Additional Mason Valley Transmission Corridor Views



Proposed Mason Substation



The Mason substation will be a 500 feet x 500 feet facility built on a bluff, behind the existing water tanks on Weed Heights Road.

Looking East

Additional Mason Substation Area Views



Looking Southeast

Additional Mason Substation Area Views



Looking West

Additional Mason Substation Area Views



Looking North

Mason Substation Distribution



The location of the Mason substation allows the reuse of the existing distribution in the area as all four distribution circuits are in close proximity to this location.

Some circuits will be rebuilt as a double circuit.

A portion of an existing double circuit will be rebuilt to replace aging poles and to optimize the design.

Smith Valley 60 kV Transmission Line

The current Bridge Street 206 distribution line will be rebuilt as the Smith Valley 60 kV transmission line with a distribution line underbuild. This route follows existing access roads through the Singatse Range to the old Ludwig mining area then on to Smith Valley to the upper most part of Lower Colony Road and then following Lower Colony Road to the Smith Valley switching station.

The transmission line will be constructed at 120 kV to meet avian protection standards and to meet future growth in the Smith Valley / Topaz Ranch Estates area, but will be operated at 60 kV for the near term.

Single Circuit 120 kV with Distribution Underbuild



Smith Valley Transmission Line - Example



Before



After (Visual Simulation)

Smith Valley Transmission Line Corridor Views



Heading west towards the Singatse Range

Smith Valley Transmission Line Corridor Views



Heading west near the Bluestone Mine

Smith Valley Transmission Line Corridor Views



Looking east midway through the Project

Smith Valley Transmission Line Corridor Views



Looking west midway through the Project

Smith Valley Substation

The project proposes to replace the existing Smith Valley switching station with a substation to receive the Smith Valley transmission line.

The location of the substation is situated at the critical junction of the two distribution feeders coming from Yerington and the single distribution feeder heading to Topaz Ranch Estates.

The substation will be built as 120 kV standards, but will be operated at 60 kV for the near future.

This addition of this substation and the transmission line feeding the facility will solve the low voltage issues experienced by our customers in the area and improve electrical reliability.

Smith Valley Substation - Example



The Heyborne Substation in the Carson Valley has a similar configuration.

Smith Valley Substation



Looking North towards the location of the future Smith Valley Substation

Smith Valley Substation



The existing Smith Valley Switching Station.

Old 60kV Transmission Line Removal

At the conclusion of the project, three 60 kV lines no longer in service will be removed and the corridor will be restored.



Existing view



Proposed (visual simulation)