

Improving Service Reliability to Mason/Smith Valley Area



FACT SHEET

Electric service reliability to our customers is very important to NV Energy. That is why we regularly analyze performance of our power lines and facilities throughout northern Nevada to determine if and how we can improve service to our customers.

Over the years, service reliability in the Yerington, Mason and Smith Valleys areas, along with the Topaz Ranch Estates area, has been an increasing concern to customers and the company alike. Responding to that concern, NV Energy conducted a comprehensive evaluation to determine cause, frequency and duration of power outages in the area. This led to some short and long term solutions to solve reliability and capacity problems, some of which have already been implemented. Other solutions are in progress.

NV Energy is Investing in the Community

The estimated cost of the Smith Valley improvements is \$18 million and the estimated cost of the Mason Valley improvements is \$21 million, for a total of nearly \$40 million.

Analyzing the Problem

The Smith Valley, Wellington and Topaz Ranch Estates areas are served electricity by two long

25,000-volt distribution lines from two different substations in Yerington. A substation is an assembly of electrical equipment that is connected to high-voltage power lines coming from power plants and reduces the voltage to send out to individual neighborhoods and customers fed by distribution lines. Company personnel conducted extensive patrols and inspections of the existing distribution power lines searching for ways to improve performance on the lines and upgrade certain components. Substation equipment and system protection devices also were tested for proper maintenance and operation.



NV Energy's analysis showed that the existing facilities at the company's substations serving the area are unable to fully support increasing customer electric load requirements in Smith Valley, Wellington and Topaz Ranch Estates, during certain times in the summer months when electric usage is high. This has resulted in voltage quality situations and customer outages. When this occurs there is no readily available alternative to serve customers until demand subsides and/or repairs can be made to any disabled equipment.

Short Term Actions Underway

Over the past five years, preventive maintenance and corrective actions have been undertaken to repair and/or replace insulators, cross arms and other hardware, plus installing new equipment on power lines and replacing some power poles and conductor or power lines on those poles. New voltage regulators and capacitors and other equipment have been installed in both Anaconda and Bridge Street Substations. The company has also transferred some customers from one power line to another in order to "balance" the load.

Long Term Solution Proposed

NV Energy already has long-term solutions in the works to address reliability and capacity issues. Proposed plans have already been submitted to the Bureau of Land Management for the following:

- Construct a new Mason Substation, located 0.8 miles west of the junction of State Highway 339 and the Weed Heights Road.
- Reroute three existing 60,000-volt transmission lines approximately 2.3 miles to the proposed new Mason Valley Substation and consolidate the lines on to two single pole configurations.
- Rebuild the Smith Valley Substation, located on Lower Colony Road approximately 0.5 miles south of Artist View Road intersection.
- Rebuild an existing 25,000-volt distribution line currently serving Smith Valley to include both a 60,000-volt and 25,000-volt line on the same poles to bring a new transmission source into the area and connect to the Smith Valley Substation.

When the long-term solution is completed, NV Energy plans to decommission both the existing Anaconda Substation and the existing Bridge Street Substation, restoring and revegetating both sites.

Permission to Build

NV Energy has already provided design information and has filed a Plan of Development with the Bureau of Land Management. The BLM has initiated an Environmental Assessment, public meetings and biological and cultural surveys have been conducted. The company anticipates having a Notice to Proceed by 2017. Special Use Permits have been granted by Lyon County for the proposed Smith Valley substation, the proposed Mason Valley substation and the associated transmission lines. Project design and the acquisition of equipment is in progress. Construction may begin in 2017, with completion in summer of 2018.

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