

**Xcel Energy
Scope Document**

Revision #:	MR1	
Date Submitted:	1/1/10	
Project Title:	Poncha Junction 115/230 kV Transformer	
Project Manager:	Bob Anderson	
Planner:	Tom Green/Mike Rein	
In Service Date:	12/31/12	
Area of Work (NSP, NSPW, PSCo, CHY, SPS)	PSCo	
State Work Being Completed:	CO	
Project Start Date:	Spring 2011 (Engineering)	
Distribution Associated Projects	None	

Brief Project Description

Install a new 280 MVA 115/230 kV autotransformer at PSCo. Poncha Junction substation, and Install 1 new transmission line between the new autotransformer and WAPA's Poncha substation in order to provide a transmission contract path for PSCo to utilize solar power generation in the San Luis Valley.

Detailed Project Description

Install a new 280 MVA 115/230 kV autotransformer at PSCo. Poncha Junction substation. The autotransformer will connect to the PSCo 115 kV bus at the Poncha Junction substation through 115 kV termination equipment. Between the high side of the new Poncha Junction transformer and the 230 kV bus at the WAPA Poncha substation, build approximately 1 mile of new single circuit, 954 ACSR conductor transmission. The transmission should consist of single-circuit 230kV structures. The transmission for this section will require new right-of-way acquisition. 230 kV termination equipment is required at the WAPA Poncha substation. The new autotransformer and transmission line will provide a transmission contract path for PSCo. to utilize solar power generation in the San Luis Valley.

Alternatives and Reason for Choice

Alternative 1: No work is done. No contract path exists to utilize generation in the San Luis Valley. No tie exists between the PSCo. transmission system and the 230 kV system in the San Luis Valley.

Consequences of Not Doing Project

No contract path exists to utilize generation in the San Luis Valley. No tie exists between the PSCo. transmission system and the 230 kV system in the San Luis Valley.

Risks/Issues

- Without the project no contract path exists to utilize solar generation in the San Luis Valley
 - Currently no tie exists connecting the 115 kV system to the 230 kV system in the San Luis Valley

Comments-Transmission Initiatives

- Provides a contract path for generation transmission from the San Luis Valley
 - Connects the 115 kV system to the 230 kV system in the San Luis Valley
 - Improved system reliability
 - Increased ability to deliver solar power from ERZ 4 and 5 to the Denver-metro load center

Transmission/Substation/One-Line Diagrams

