

Tri-State Generation and Transmission Association 2014-2023 Transmission Plan

Boone-Walsenburg 230 kV Line

Project Sponsor:	Tri-State Generation and Transmission Association
Additional Project Participants:	
Project Description:	Construct a 230 kV transmission line from Boone substation to Walsenburg substation.
Voltage Class:	230 kV
Facility Rating:	645 MVA
Point of Origin/Location:	Boone
Point of Termination:	Walsenburg
Intermediate Points:	Avondale
Length of Line (in Miles):	69 Miles
Type of Project:	Transmission Line
Development Status:	Planned
Routing:	
Subregional Planning Group:	CCPG
Purpose of Project:	Reliability - eliminate the need for the existing Walsenburg Remedial Action Scheme (RAS).
Estimated Cost (in 2013 Dollars):	\$45,000,000
Schedule:	
Construction Date:	
Planned In-Service Date:	2018
Regulatory Info:	
Regulatory Date:	
Permitting Info:	
Permitting Date:	
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Boone – Walsenburg 230 kV Line Project

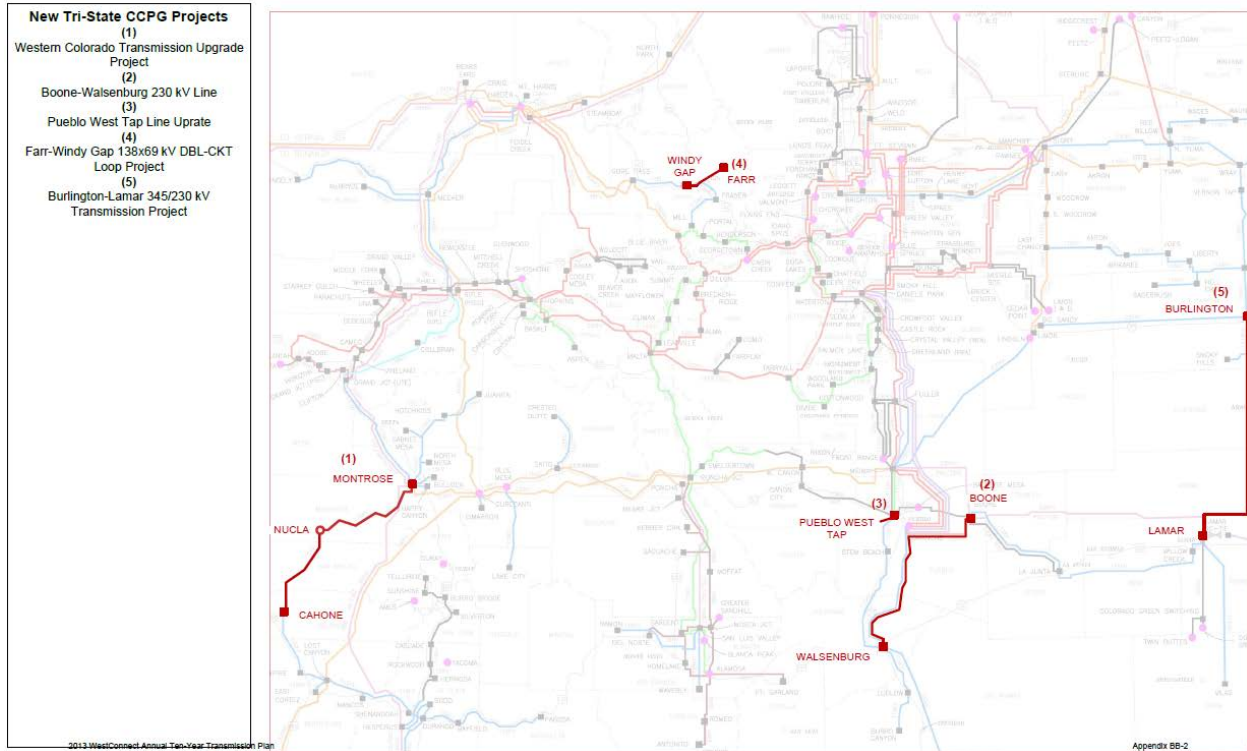


Figure 8: Boone – Walsenburg 230 kV Line Project Map

The Boone-Walsenburg project will consist of one new 230 kV transmission path from the existing Boone substation, owned by Tri-State and Xcel Energy, to the existing Walsenburg substation, owned by Tri-State. Due to land constraints around Walsenburg, this line will actually be routed to a location north of Walsenburg called Calumet. There, the line will join with the existing Comanche – Walsenburg 230 kV line and continue to Walsenburg via a double circuit configuration (named Calumet – Walsenburg 230 kV). The Boone - Calumet transmission segment will be constructed as a single circuit line approximately 70 miles in length. The conductor will be 1272 MCM ACSR-Bittern with a maximum design temperature of 100°C and be owned by Tri-State.

Addition of a new 230 kV line will increase reliability in the Pueblo, Colorado area and also in Northeast New Mexico. Presently, the loss of the Comanche-Walsenburg 230 kV line results in severe thermal overloading on the 115 kV transmission system from West Station to Walsenburg. In order to mitigate the overloading, a Remedial Action Scheme (RAS) trips the Walsenburg-Gladstone 230 kV line which results in the loss of load and reduced reliability in Northeast New Mexico.