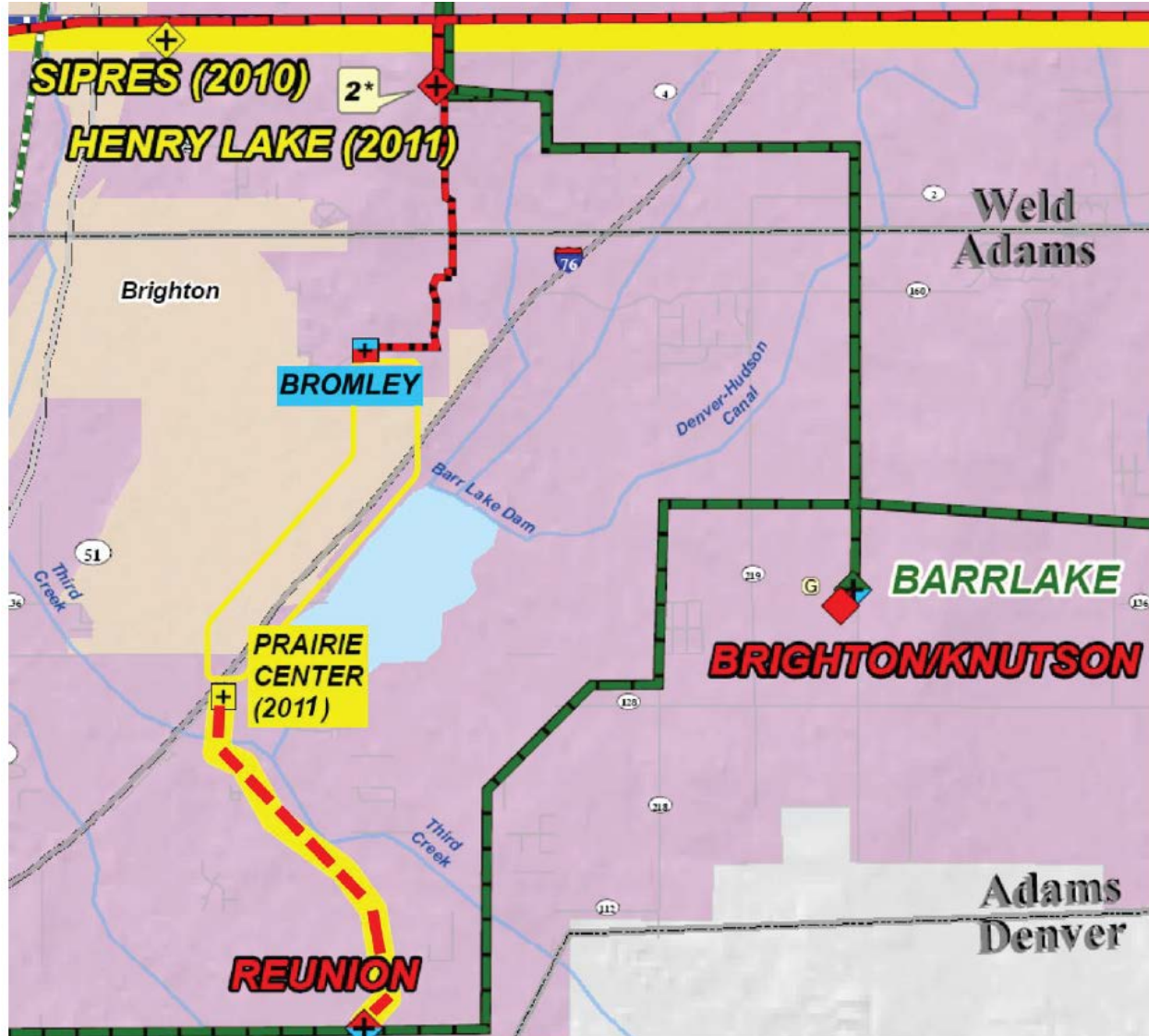


# Tri-State Generation and Transmission Association 2014-2023 Transmission Plan

## United Power System Improve Project Phase III

<b>Project Sponsor:</b>	Tri-State Generation and Transmission Association
<b>Additional Project Participants:</b>	
<b>Project Description:</b>	New 115 kV transmission line between Bromley and Prairie Center Substations.
Voltage Class:	115 kV
Facility Rating:	232 MVA
Point of Origin/Location:	Bromley
Point of Termination:	Prairie Center
Intermediate Points:	
Length of Line (in Miles):	5.0
Type of Project:	Distribution
Development Status:	Under Construction
Routing:	
Subregional Planning Group:	CCPG
<b>Purpose of Project:</b>	Provide transmission service between Bromley and Prairie Center.
<b>Estimated Cost (in 2013 Dollars):</b>	\$4,826,000
<b>Schedule:</b>	
Construction Date:	2013
Planned In-Service Date:	2014
Regulatory Info:	CPCN Not Required: COPUC-C04-0725
Regulatory Date:	
Permitting Info:	
Permitting Date:	
<b>Contact Information:</b>	Matthew Haag
Email	mhaag@tristategt.org
Phone	303-254-3159
Website Information	<a href="http://www.tristategt.org/transmissionPlanning/puc3627_TransmissionProjects.cfm">http://www.tristategt.org/transmissionPlanning/puc3627_TransmissionProjects.cfm</a>

*United Power System Improvement Project, Phase III*



**Figure 13: United Power System Improvement Project, Phase III Map**

This project is the final phase of three phases to provide adequate transmission service, voltage support, and capacity to the loads served from United Power's existing Bromley 34.5-13.2 kV Substation and the existing Reunion 230-12.5 kV and Prairie Center 115-13.2 kV Delivery Points. The first phase of the project was completed in 2005 and the second phase was completed in 2011.

During recent years, the loads served from United Power's 34.5 kV sub-transmission systems in its Plains Area have experienced low voltages and overloads during peak summer demands. The Bromley delivery has experienced low voltage criteria violations during peak summer demand for the past several years. United Power is incapable of serving the City of Brighton from Bromley because of low voltages and overloads on its 34.5 kV and 13.2 kV systems for the outage of United Power's Platte Valley 34.5 kV Substation.

The third phase of this system improvement project will provide transmission service between Bromley and Prairie Center by constructing a 115 kV overhead line, about 5.0 miles, using 795 kcmil ACSR designed for 100 deg C and a 48 fiber optics cable, from Bromley to Prairie Center. Providing service to Bromley and Prairie Center Substations at 115 kV and Reunion Substation at 230 kV instead of at 34.5 kV will reduce system losses. The 115 kV loop needs to be normally open because under certain 230 kV single contingencies or fault conditions, this line's conductor and other 230 kV line sections of the PSCo system would overload, as has been verified by PSCo power system studies. This project is presently planned to be financed 50% by Tri-State and 50% by United Power with construction solely by Tri-State.