FINDING OF NO SIGNIFICANT IMPACT

BROMLEY-PRAIRIE CENTER 115 KV
TRANSMISSION LINE PROJECT
ADAMS COUNTY AND THE CITY OF BRIGHTON,
COLORADO

TRI-STATE GENERATION AND TRANSMISSION
ASSOCIATION, INC.

ENGINEERING AND ENVIRONMENTAL STAFF
RURAL UTILITIES SERVICE

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INTRODUCTION

Tri-State Generation and Transmission Association, Inc. (Tri-State) is proposing to construct the Bromley to Prairie Center 115-kV Transmission Line Project (the Project). The proposed Project involves the construction of a single-circuit 115 kilovolt (115-kV) transmission line approximately 5.2 miles in length between the existing Bromley Substation (located in the City of Brighton) and the existing Prairie Center Substation (located in unincorporated Adams County). The Project would complete the third and final phase of the United Power Transmission System Improvement Project, which was initiated by Tri-State and United Power in 2002. Phase I was completed in 2004 and consisted of construction of the Henry Lake Substation (Weld County), construction of a 115-kV transmission line between the Henry Lake Substation and the Bromley Substation, and improvements at the Bromley Substation. Phase II was completed in 2011 and consisted of construction of the Reunion and Prairie Center Substations (both in Adams County) and construction of a new 115-kV transmission line between the Reunion Substation and the Prairie Center Substation. RUS may finance the proposed Project, thereby making it an action subject to review under the National Environmental Policy Act (NEPA), the Endangered Species Act (ESA), Section 106 of the National Historic Preservation Act (NHPA), and all applicable federal environmental laws and regulations.

In accordance with RUS's Environmental Policies and Procedures, 7 CFR Part 1794, RUS determined that the proposed Project required the preparation of an Environmental Assessment (EA). Consistent with 7 CFR § 1794.53 and under RUS's direction, Tri-State and its environmental consultants (EDM International, Tetra tech and CH2M Hill) prepared a Draft Environmental Assessment (DEA). RUS conducted an independent evaluation of the DEA and concurred with its scope and content, purpose and need, reasonable alternatives, and potential impacts to the environment, and adopted the DEA as the agency’s EA. RUS determined that the EA meets the standards for an adequate environmental assessment as specified in the National Environmental Policy Act (U.S.C. 4231 et seq.), the Council of Environmental Quality’s (CEQ) regulations for implementing NEPA (40 CFR Parts 1500-1508), and RUS’s NEPA implementing regulations, Environmental Policies and Procedures (7 CFR Part 1794).

PURPOSE AND NEED

The purpose of the proposed Project is to provide redundant, reliable electrical service to the Prairie Center and Bromley Substations, which are currently serviced by radial feeds. The Project is needed to ensure United Power can continue to reliably supply electricity to residents, businesses, and critical services in the rapidly growing local community. To meet the growing electrical needs of Brighton and Adams County, additional power delivery infrastructure is required to allow Tri-State to be able to maintain an adequate and reliable supply of electricity to United Power who can then distribute the power to its member consumers. The Project is needed in order to:

- Provide the critical missing link to form a "loop" system to increase reliability.
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- Provide increased electric load serving capacity to urban, residential, and commercial development.
- Provide additional reliability for the Adams County Justice Center, Platte Valley Medical Center, Prairie Center Retail, and Adams County Detention Center.

PROPOSED ACTION

The proposed Project involves the construction of a single-circuit 115-kV transmission line approximately 5.2 miles in length between the existing Bromley Substation (located in the City of Brighton) and the existing Prairie Center Substation (located in unincorporated Adams County). The Project would include both double-circuit and single-circuit structures. For approximately the first 0.7 mile, as the transmission line exits the Bromley Substation, the line would utilize the empty circuit of the Henry Lake-Bromley 115-kV transmission line, resulting in a double-circuit line for that line segment. The remainder of the transmission line would be a single-circuit line.

The proposed structures would be single pole, steel with a galvanized gray finish and would either have concrete foundations or would be directly embedded. Typical structure height would range from 70 to 90 feet tall, depending on span distances. The number of structures per mile is estimated to be approximately nine structures per mile. Optical groundwire for internal Tri-State communications would be installed on the overhead static wire. The typical right-of-way (ROW) width will be 75 feet. The ROW parallels an existing United Power 12.47-kV overhead distribution line for approximately 1.6 miles. As part of the proposed action, United Power would remove and bury the 1.6 mile section of overhead distribution line. The EA provides further detail regarding the proposed transmission structures, ROW, construction and maintenance procedures, construction schedules, access road improvements, and environmental protection measures.

ALTERNATIVES CONSIDERED

The EA considers the no action alternative and three alternative transmission line routes (the Preferred Route, Alternative Route A and Alternative Route B).

No Action

Under the No Action alternative, the RUS would not provide funding assistance and/or Tri-State would not construct the proposed Project. Implementation of the No Action alternative would not meet Tri-State's purpose and need to provide redundant service through the completion of a loop system, increase capacity, and comply with regulatory standards. Both the Bromley and Prairie Center Substations would continue to be fed by one radial line, and no redundant second line would be available to ensure continued transmission service if a radial line failed. There is insufficient distribution line capacity to support the entire Bromley load. Under the No Action alternative, no redundancy or increased capacity would be available to cover regional consumer demands.
Alternatives Eliminated From Further Consideration

Several potential line routes were considered but then eliminated from further analysis. These routes are described in Tri-State’s Routing Summary Report contained in Appendix B of the EA. Underground construction was also considered but eliminated due to its substantially higher costs and shorter life expectancy compared to overhead construction.

Route Alternatives

Tri-State completed a siting study for the proposed Project to delineate potential routes between the Bromley and Prairie Center Substations. The study area extended east and west from the two substations to allow for a number of alternative alignments to be considered. As noted above, several potential routes were eliminated from further consideration, based on a number of site-specific factors (e.g., line length, number of residences in proximity to line) and visual and land use related impacts. Three routes (the East I-76 Route, West I-76 Route and East I-76/West I-76 combination) were selected for final evaluation.

Based on the results of the routing study and inputs received by the City of Brighton, Adams County, property owners and other stakeholders, the East I-76 route was chosen as the Preferred Route, the West I-76 route was selected as Alternative A and the East I-76/West I-76 combination was selected as Alternative B. The Preferred Route was selected for the following reasons:

- The route is located within an established transportation/utility corridor.
- The route follows existing linear facilities including an existing transmission line, an oil/gas pipeline, I-76, BNSF Railway, a local county road and an existing electric distribution line (which will be removed and placed underground to reduce the number of overhead lines in the area).
- The route is located between I-76 and the railroad for the majority of its length.
- The route offers Tri-State the opportunity to purchase and utilize remnant parcels currently owned by the Colorado Dept. of Transportation along I-76 for construction and operation of the transmission line.
- The route is located on the opposite side of the highway from the Platte Valley Medical Center helipad.
- The route impacts the fewest number of properties.

RUS determined that the Preferred Route best meets the Project's purpose and need and incorporates environmental protection and mitigation measures to minimize impacts to the area’s natural and human resources to greatest extent practicable. RUS has reviewed the appropriate studies and concluded that the proposal is a viable, economically feasible alternative to meet the purpose and need for the project.
SUMMARY OF ENVIRONMENTAL IMPACTS

The EA addresses direct, indirect, and cumulative impacts to a full range of environmental resources, including air quality, geology and minerals, soils, water resources, floodplains, wetlands, vegetation resources, wildlife resources, special status species, cultural resources, transportation, land use, recreation, visual resources, noise, social and economic values, environmental justice, hazardous materials/solid waste, public health and safety. A brief summary of each resource area follows.

- **Air Quality.** The primary emissions generated by the proposed Project are temporary and include exhaust emissions from construction vehicles and equipment, as well as fugitive dust emissions from soil disturbance during construction. Operation of the transmission line would not result in any air emissions. Any air pollutants generated would be widely dispersed and short-term in duration. Air pollutants would be minimized through implementation of the environmental protection measures for dust suppression and proper vehicle maintenance. There would be no long-term adverse air quality direct or indirect effects associated with routine operation and maintenance of the proposed transmission line.

- **Geology and Minerals.** No direct, indirect, or residual site-specific geologic impacts would be anticipated for the proposed Project. No geologic hazards were identified and no impacts to Project infrastructure from slope instability or faulting would be anticipated.

- **Soils.** Potential impacts to soil resources are expected to be limited in scope and mitigated through implementation of the Project's soils related environmental protection measures (EMPs). The potential for direct impacts including soil compaction from machinery traversing the ROW during construction (including the removal and burying of 1.6 miles of United Power's existing 12.47-kV distribution line) would be minor and short term, given Tri-State's commitment to restrict vehicle use to the existing ROW easements, approved access routes and existing roads, eliminate compaction and seed the disturbed areas with approved seed mixtures. Tri-State has also committed to minimize the potential for indirect loss of soil through erosion or off-site soil transport during construction. Long-term loss of soils during the distribution line burial and transmission line construction would be negligible. Long-term, permanent surface disturbance would be limited to the transmission structure footprints.

- **Water Resources.** No measurable direct or indirect impacts to surface water features or water quality would be anticipated, including Barr Lake which is the most prominent water resource in the Project area. No impacts to the area's water supply would be anticipated. Any water required for construction,
revegetation, or dust suppression would be purchased from a municipal source or a construction water provider with a private well.

- **Floodplains.** Because the proposed action would not intersect any FEMA-delineated 100 year floodplains, no direct or indirect adverse floodplain impacts would be anticipated.

- **Wetlands.** The Preferred Route would intersect a total of 3.41 acres of wetlands. Permanent impacts to wetlands are associated with two transmission structures which will be located in wetland areas. Temporary direct disturbance to wetlands is expected during construction to provide access to structure sites and to provide workspace for structure placement. These temporary direct impacts are expected to be minor and would be minimized through implementation of wetland EPMs including implementation of a stormwater management plan. This would be a permitted action under US Army Corps of Engineers Nationwide Permit 12 (Utility Line Activities). RUS has determined that the Project will not affect wetlands based on minor impacts and appropriate conservation measures.

- **Vegetation Resources.** Vegetation would be temporarily affected during construction by vehicles and equipment traveling overland to access transmission structure locations. Approximately 72% of the Preferred Route alignment is located within previously disturbed, fallow or pasture lands containing a majority of non-native grasses. Therefore, disturbance of good to high quality native vegetation communities, including wetlands and native shortgrass prairie, would generally be limited and minimized by implementing vegetation related Project EPMs. Potential long-term direct impacts would be limited to the removal of small areas of vegetation at each structure site and the need to remove or trim isolated trees to ensure safe line construction, operation, and maintenance activities. The primary indirect effect to vegetation resources is the potential increase in noxious or invasive weed populations within the area disturbed by construction activities. This effect would be minimized by Tri-State’s reclamation measures and specifically committed EPMs designed to prevent the spread of noxious weeds.

- **Wildlife Resources.** The location of the Preferred Route alignment parallel to Barr Lake and within the I-76 and BNSF Railway corridors helps to co-locate utilities and minimize impacts to wildlife and wildlife habitats including avian collision risk, as compared to directly bisecting high-value bird habitats associated with Barr Lake State Park. Construction during the fall and early winter period would avoid the avian breeding seasons and no impacts to nesting species are expected to occur during construction.

Literature shows that birds of prey have acute eyesight, are good fliers, have the ability to avoid obstacles, and are not prone to collisions. However, raptors may still be at risk, depending on line orientation to use areas (Mojica
et al. 2009). Therefore Tri-State has committed to marking the OPGW to minimize and mitigate avian collision risk associated with the proposed alignment.

No fisheries or aquatic habitats would be affected by the proposed action, given the lack of surface water resources crossed by the alignment. Potential direct and indirect impacts and net effects to terrestrial wildlife habitat would primarily encompass those species more commonly associated with habitats affected by human use (pasture, fallow fields, active agricultural areas, infrastructure, and commercial development). Potential direct, indirect, short-term, and long-term effects to native wildlife habitat would be minimized by the committed EPMs outlined in the EA. Permanent impacts are primarily associated with structure locations and permanent access roads.

One beneficial, direct, long-term impact is the proposed burial of United Power’s existing wood-pole 12.47-kV distribution line. This distribution line currently presents a minor to moderate electrocution risk to eagles, hawks, and owls, depending on the structure configuration and type of equipment on the poles. Burying this distribution line would result in the electrocution risk to area birds dropping to none.

- **Special Status Species.** There are no federally listed wildlife species or critical habitat known to occur in the Project area. The Project may contain suitable habitat for the federally threatened Ute ladies’-tresses orchid (*Spiranthes diluvialis*) and Colorado butterfly plant (*Gaura neomexicana ssp. Coloradensis*). Neither species was recorded during surveys conducted by Tri-State contractors. Final USFWS concurrence documentation stating “No Concerns” was received on August 27, 2013.

The state threatened burrowing owls may nest within the blacktailed prairie dog colony near the Bromley Substation and are known to occur within and adjacent to Barr Lake State Park. In order to ensure the Project does not impact burrowing owls, Tri-State has committed to conducting burrowing owl surveys to determine if an active nest site occurs within 150 feet of proposed construction activities between March 15 and October 31. If present, Tri-State has also committed to avoid human encroachment within 150 feet of an active burrowing owl nest site or an Environmental Monitor would be present at all times to ensure eggs or young are not lost.

Bald eagles have historically nested at Barr Lake. Several inactive historic nest sites also are shown, scattered along the lake’s southern perimeter. The bald eagle nest used by the breeding pair last season is outside of the 0.25 recommended no surface disturbance buffer as well as the 0.5 mile no disturbance buffer. In the event, construction activities were to extend into the eagle’s breeding season (October 15 through August 31), Tri-State has committed to contracting a qualified biologist to conduct a pre-construction nesting survey and an Environmental Monitor would be present to monitor
bald eagle behavior, if warranted. If an active bald eagle nest were to occur within 0.5 mile of construction areas, nest protection measures would be developed, ranging from establishing a restricted buffer area around the nest site until the young have fledged to having an Environmental Monitor present to ensure the nest, eggs, young, and adults are protected. This measure also is in accordance with the recommended seasonal restrictions for nesting raptors developed by the CPW (2008).

Relative to wintering bald eagles at Barr Lake, the proposed construction schedule would avoid the bald eagle winter concentration period, which extends from November 15 through March 15. If construction were to extend into the winter season for area eagles, construction would occur during daylight hours when eagles are typically foraging away from the roost. Construction typically would not occur during inclement weather when eagles may be present at the communal roost sites during daylight hours. Additionally, the distance and vegetative buffering between the Preferred Route alignment and eagle use areas would collectively minimize exposure to increased noise levels and human presence from the short-term construction activities during this early period. Therefore, Project construction would result in no impacts to wintering eagles or their winter roost.

Measures to be implemented to address the potential for avian collision and electrocution risk were addressed under Wildlife Resources. RUS has determined that the proposed project will have no impact on threatened or endangered species and their habitat

• **Cultural Resources.** A Class I cultural resource file search was conducted through the Colorado Historic Society/Office of Archaeology and Historical Preservation (OAHP) Compass online database, followed by a Class III inventory of the Project’s Area of Potential Effect (APE). The inventory resulted in the identification of four historic sites and one historic isolated find. No prehistoric cultural resources were found. No direct or indirect impacts to the identified sites would occur. The closest site is approximately 700 feet from the Preferred Route. The site is separated from the route by the BNSF Railway and an existing distribution line. Indirect, visual impacts would therefore be minor. Tri-State has committed to instructing all construction personnel on protection of cultural resources, avoiding known eligible cultural resources during construction, operation, and maintenance of the line and implementing protocol for addressing discoveries of previously undocumented cultural resources. Based on these committed measures, known eligible cultural resources would be protected and unanticipated discoveries would be managed such that impacts would be minimized, and full compliance with federal historic preservation law would be achieved. RUS has determined that the proposed Project will have no impact to historic properties. The Colorado State Historic Preservation Officer (SHPO) submitted a concurrence letter to Tri-State on a June 13, 2013.
• **Transportation.** Construction of the proposed Project would result in minor, short-term effects on the existing transportation network. These effects include potential temporary delays in traffic flow at road crossing points and a small and temporary increase in vehicular traffic volume due to construction vehicles and equipment operating in the area. Routine operation and maintenance of the transmission line would have no anticipated effects on transportation or access in the Project area. The proposed Project would have a negligible effect on air traffic associated with the Platte Valley Medical Center heliport, as the Preferred Route would not penetrate the requisite airspace for the heliport.

• **Land Use.** Overall effects on land use resulting from construction, operation, and maintenance of the Proposed Action would be minor. The Preferred Route closely follows existing transportation and utility corridors for essentially its entire length. Tri-State has committed to EPMs that would minimize both short-term and long-term effects on use and productivity of potentially affected lands. All lands cross by the proposed Project could return to their present use following the completion of construction activities, with the exception of the small amount of land permanently lost at each transmission structure location. The proposed Project does not conflict with future land use goals for the area as detailed in the Adams County and City of Brighton comprehensive plans. Tri-State has obtained Land Use permits from both of the affected jurisdictions.

• **Recreation.** Overall the Project would have minor effect on recreational opportunities in the area. The only park or other recreational land/facility in proximity to the proposed Project is Barr Lake State Park. That portion of the Preferred Route near the park is located parallel to the I-76/Burlington Northern Santa Fe Railway corridor. Although the transmission line would be visible from certain points inside the park, particularly along the perimeter trail, it would not substantially degrade the quality of recreational opportunities and experience because of the of the proposed line's location in an already highly disturbed landscape along I-76 and the BNSF Railway. There would be no direct or indirect physical interference with the use or enjoyment of the park.

• **Visual Resources.** The Preferred Route is located in relatively flat and open terrain. As a result, construction of the Project would create direct long-term impacts to visual resources. The level of impact will depend on the location and sensitivity of viewers, which would primarily include local residents, I-76 motorists and Barr Lake State Park visitors. Tri-State's EPMs for visual resources would help minimize direct and indirect impacts to visual resources. A portion of the line would be constructed within or adjacent to the existing United Power distribution line right-of-way which would be buried as part of the Project.
• **Noise.** Noise impacts would primarily be localized within the Project area. Construction noise would result primarily from equipment use. Modeling for the proposed Project demonstrated that under peak conditions, with the loudest construction equipment operating simultaneously, the noise level would be approximately equivalent to noise experienced on a sidewalk next to a busy urban street. In addition, there are existing noise disturbances in the Project area including the BNSF Railway and Highway 76. The maximum noise levels would only occur for brief periods at any particular location. During long-term Project operation, noise emissions would be limited to low level corona noise and occasional maintenance activities.

• **Social and Economic Values.** The Proposed Project will have a minor beneficial effect on the local economy. The Project would employ an estimated 30 to 40 contract construction and related workers who may or may not come from the local area. Some portion of the wages paid to workers would likely be spent in the area for food, fuel, and other goods and services. Material for construction, such as concrete, also may be acquired through local sources. Because of the short duration of construction activity, indirect and induced economic effects would be minimal. In the longer term, however, the looped power system that the proposed Project would complete would provide more reliable electrical service that would be beneficial for attracting continued economic growth in the area. Public revenues also would accrue through collection of property taxes once the Project is in operation.

• **Environmental Justice.** There are no low-income or significant minority populations in the Project area. The proposed Project would therefore not have any adverse short-term or long-term direct or indirect impacts on minority or low income populations.

• **Hazardous Materials/Solid Waste.** Tri-State has committed to a number of EPMs to minimize potential contamination issues, prevent an accidental release of hazardous waste materials and manage solid waste during construction.

• **Public Health and Safety.** Tri-State will implement design standards and EPMs to minimize and mitigate potential public health and safety issues. Tri-State has adopted, as corporate policy, programs that ensure that its electric facilities are designed, constructed, and operated in such a manner as to minimize, to the extent prudent and practicable, the level of electric and magnetic fields that are created. Electric and magnetic fields associated with the proposed Project are not considered significant, and are not expected to cause adverse health effects.

• **Cumulative Impacts.** Cumulative impacts result from the incremental impact of an action when added to other past, present, and reasonably foreseeable future actions, regardless of who undertakes such other actions. Cumulative
impacts can result from individually minor but collectively significant actions taking place over a period of time. The proposed Project is sited in an established industrial corridor that encompasses a number of past and present actions. These primarily entail the operation of I-76 and BNSF Railway corridors, the commercial and residential development in the area, and the use of the Barr Lake State Park for recreational pursuits. Future actions include continued expansion of commercial, industrial, and residential areas and construction of Xcel Energy’s Cherokee Natural Gas Pipeline. The proposed Project, when evaluated in context with other past, present and reasonably foreseeable future actions, is not expected to result in any adverse cumulative impacts to the area’s natural and human environment. It is possible that the new transmission line could pose an increase in collision risk for bald eagles and other migratory birds. Existing infrastructure in the area that poses potential cumulative risks from an avian collision perspective includes Tri-State’s United Power Phase II transmission line (which was marked with flight diverters in high risk areas), the BNSF Railway and traffic from Interstate 76. There are no other proposed power lines in the area that may result in a cumulative collision risk to migratory birds, including bald eagles. Tri-State has committed to marking spans along the preferred route that have a moderate to high collision risk potential. In order to mitigate direct, indirect, and cumulative effects to bald eagles and other migratory birds, Tri-State has committed to EPM’s WR-1 through WR-3. The removal and burial of the existing distribution line would result in a long-term beneficial effect to area raptors from an electrocution perspective, as compared to current conditions.

PUBLIC INVOLVEMENT

Tri-State and United Power hosted a voluntary public meeting on October 19, 2011, in Brighton, Colorado, and a Neighborhood Meeting required by Adams County on April 5, 2012, also in Brighton. These meetings were held to allow the public an opportunity to comment on the proposed Project as part of the federal, county, and city permitting processes. Results of these meetings, including a description of the line routes, materials presented, and comments received by the public and other stakeholders, are contained in the Meeting Summary Reports found in Appendix A of the EA.

The availability of the EA for public review was announced with newspaper advertising in the Brighton Blade on April 2 and April 9, 2014. The EA was made available to the public electronically on the RUS website (http://www.rurdev.usda.gov/UWP-ea.html), and in hard copy at the headquarters of RUS and Tri-State and the Anything Brighton library. The comment period ended May 2, 2014. RUS did not receive any comments on the EA.
FINDING OF NO SIGNIFICANT IMPACT

Based on the EA analysis, RUS has concluded that the construction, operation, and maintenance of the proposed Project would have no significant impacts on the following:

- Air Quality
- Geology and Minerals
- Soils
- Noise
- Water Resources
- Floodplains
- Wetlands
- Vegetation Resources
- Wildlife Resources
- Special Status Species
- Cultural Resources
- Transportation
- Land Use
- Recreation
- Visual Resources
- Noise
- Social and Economic Values
- Environmental Justice
- Hazardous materials/Solid Waste
- Public Health and Safety

In accordance with the National Environmental Policy Act, as amended (42 U.S.C. § 4321 et seq.), the Council on Environmental Quality Regulations (40 CFR §§ 1500-1508), and RUS's Environmental Policies and Procedures, as amended (7 CFR Part 1794), RUS has determined the environmental impacts of the proposed Project have been adequately addressed and that no significant impacts to the quality of the human environment would result from the construction or operation of the proposed Project. Any final action of the RUS to the proposed Project will be subject to, and contingent upon, compliance with all relevant federal and state environmental laws and regulations. Since RUS's federal action will not result in significant impacts to the quality of the human environment; the preparation of an Environmental Impact Statement related to the proposed Project is not necessary.

This FONSI is not a decision on Tri-State's loan application and therefore not an approval of the expenditure of federal funds. Issuance of the FONSI and its notices concludes RUS' environmental review process in accordance with NEPA and RUS' Environmental Policies and Procedures (7 CFR Part 1794). The ultimate decision as to loan approval depends upon conclusion of this environmental review process in addition to financial and engineering reviews. Issuance of the FONSI and publication of notices
will allow for these reviews to proceed. The decision to provide financial assistance is also subject to the availability of loan funds for the designated purpose in RUS' budget. There are no provisions to appeal this decision (i.e., issuance of a FONSI). Legal challenges to the FONSI may be filed in federal district court under the Administrative Procedures Act.

Approved by:

JAMES F. ELLIOTT
Acting Assistant Administrator - Electric Program
Rural Utilities Service

Date