FINDING OF NO SIGNIFICANT IMPACT

BURLINGTON-WRAY 230 KV TRANSMISSION LINE PROJECT

YUMA AND KIT CARSON COUNTIES, COLORADO

TRI-STATE GENERATION AND TRANSMISSION ASSOCIATION, INC.

ENGINEERING AND ENVIRONMENTAL STAFF
RURAL UTILITIES SERVICE

February 2014

BURLINGTON-WRAY 230-KV TRANSMISSION LINE PROJECT
FINDING OF NO SIGNIFICANT IMPACT

A. INTRODUCTION

The U.S. Department of Agriculture (USDA), Rural Utilities Service (RUS), expects to receive a request for financial assistance from Tri-State for the proposed Burlington-Wray 230-kV Transmission Line (the Project). The proposed Project involves the construction of a single-circuit 230-kV transmission line approximately 72 miles in length between the Burlington Substation (located in Kit Carson County) and the Wray Substation (located in Yuma County). 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 proposal requires the preparation of an Environmental Assessment (EA) with scoping. Consistent with 7 CFR § 1794.53 and under RUS's direction, Tri-State 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 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).

B. PURPOSE AND NEED

The overall purpose of the Project is to relieve a bottleneck in Tri-State's transmission system in Colorado that constrains Tri-State's ability to efficiently and reliably operate its transmission system and dispatch existing generation resources to serve its Member Systems. Specifically, the Project would remedy the following existing system deficiencies: (1) The Burlington-Wray 115-kV transmission line limits Tri-States ability to dispatch existing Limon and Burlington generation resources; (2) Operating restrictions have been placed on the new 51 megawatt (MW) Kit Carson Wind Power Project limit due to thermal limitations on the 115-kV transmission line; and (3) Thermal limits on the 115-kV line restrict present and future deliverability of power from Tri-State generation resources (on the north side of the bottleneck) to serve Tri-State's electric load in southeastern Colorado (on the other side of the bottleneck).

The Project would meet these needs by providing a 230-kV path between the Burlington and Wray Substations that would remove the system restrictions imposed by the lower capacity 115-kV line and allow for full utilization of the existing 230-kV systems that exist on either side of the Project. An added benefit

to the Project is that it would strengthen the power delivery infrastructure and thereby accommodate potential new renewable energy development projects in the region. RUS has reviewed the Alternative Evaluation Study and determined that the proposed project will meet the present and future needs of Tri-State. The Colorado Public Utilities Commission (CPUC) granted a Certificate of Public Convenience and Necessity for the Project on January 12, 2011.

C. PROPOSED ACTION

The Project involves the construction of a single-circuit 230-kV line approximately 72 miles in length between the Burlington Substation (located in Kit Carson County) and the Wray Substation (located in Yuma County). The Burlington Substation would be expanded from the existing two breaker arrangement to a three breaker ring bus arrangement to allow for the new 230-kV line bay. The Wray Substation would require a new 230-kV ring bus configuration with three new 230-kV circuit breakers. The new transmission line is proposed to be constructed within a new right-of-way (ROW) that would typically be 150 feet wide. Tri-State proposes to use two-pole wood, H-frame structures to support the conductors on straight-line tangent sections of the transmission line. These structures typically range in height above ground from 65 to 110 feet. Three-pole wood structures with guy wires would be used where the transmission line changes direction or where wire tensions change.

D. ALTERNATIVES CONSIDERED

The EA considers several alternatives, including additional generation, energy efficiency, demand side management, transmission capacity upgrades and rebuilds, various alternative transmission routes and the no action.

No Action

RUS would not provide financing assistance and/or Tri-State would not construct the Project. This alternative would not meet the purpose and need of the Project and would require Tri-State to pursue other methods to meet the purpose and need for this Project.

Alternatives Eliminated From Further Consideration

Additional generation would not alleviate the operating constraints that already exist on generation resources in the area that limit Tri-State's dispatch capabilities. Tri-State and its Member Systems already employ energy efficiency and demand side management techniques, and studies show that even aggressive programs would not effectively eliminate or control the load serving, reliability, and interconnection issues that Tri-State faces. Tri-State also looked at connections to sources other than Burlington and Wray; however, these other connections did not resolve all of the identified deficiencies and needs. Thermal upgrades, reconductoring, and various re-builds were also considered, but did not alleviate potential overloads, presented construction and operations

problems, and in some cases were more costly. Various single and double circuit and voltage options were also studied. Of these, it was determined that a single circuit 230-kV line best meets the purpose and need.

Route Alternatives

Six 230-kV transmission line route alternatives (A-West, A-East, B-west, B-East C and D) are studied in detail in the EA. A comparative analysis of each route alternative was conducted using selected routing criteria. The Preferred Route (C) was selected based upon this analysis, comments provided during public and agency scoping meetings, and input gathered during route refinement meetings. Throughout the course of public scoping a total of 27 comments were received. The majority of these comments suggested that Tri-State move the route to maximize following section lines, avoid splitting up individual parcels, and to avoid irrigation systems and agricultural uses. Colorado Parks and Wildlife (CPW) also indicated that it would prefer to see a route that paralleled existing facilities to reduce overall and cumulative impacts to land use and biological resources.

The Preferred Route accomplishes these objectives to the greatest extent relative to the other Route Alternatives. The Preferred Route maximizes linear routing opportunities (parcels and county roads). The Proposed Route would impact the second least amount of cultivated cropland, cross the fewest number of drainages, and impact the least amount of mapped palustrine wetland and riverine wetland (riparian) areas. Although the Proposed Route would cross the greatest length of State Wildlife Areas (SWAs), Tri-State, to the greatest extent feasible, would design the alignment to minimize impacts to the SWAs and associated recreational opportunities. Tri-State would minimize impacts to wildlife resources in the Project area through a variety of committed Environmental Protection Measures.

RUS determined that the Preferred Route (C) best meets the Project's purpose and need, addresses the most common concerns raised during public scoping and route refinement meetings, and minimizes impacts to the natural and human environment to greatest extent practicable. RUS has reviewed the appropriate engineering studies and concluded that the proposal is a viable, economically feasible alternative to meet the purpose and need for the project.

E. SUMMARY OF ENVIRONMENTAL IMPACTS

The EA addresses direct, indirect, and cumulative impacts to a full range of environmental resources, including land use, geology, minerals and soils, air quality, noise, water resources, wetlands and floodplains, vegetation, wildlife and wildlife habitat, special status species and migratory birds, recreation, visual resources, economics and social values, environmental justice, public health and

safety, cultural resources, transportation and access, and electrical characteristics and public safety. A brief summary of each is provided here.

- **Land Use**. During construction, there would be temporary direct impacts to agricultural and grazing lands within the 150-foot-wide transmission line ROW, within the construction staging areas, and pulling sites which may occur outside of the ROW. Approximately 27.6 miles of prime farmland would be crossed by the proposed Project. Long-term impacts would be limited to the poles locations. Tri-State would implement Environmental Protection Measures to minimize impacts to land use from the spread of noxious weeds. Construction, operation, and maintenance of any of the route alternatives are not anticipated to have an adverse long-term direct or indirect impact on agricultural or grazing land uses within the study area or on a state or regional level. The Project is not expected to result in adverse cumulative impacts to land use.

- **Geology and Soils**. Impacts to soils would occur from structure construction, use of staging areas and pulling sites, as well as overland and new access routes. Impacts to soil resources would be limited to the transmission ROW, staging areas, and associated access roads and would not affect resources on a state or regional level. Tri-State would implement Environmental Protection Measures to avoid and minimize impacts to soils and geology. The Project is not expected to result in adverse cumulative impacts to geology and soils.

- **Air Quality**. The primary emissions generated from construction and operation of transmission lines are those associated with transmission line construction and would include exhaust emissions from construction equipment, helicopters (if necessary), and vehicles, as well as fugitive dust emissions from site disturbance by construction vehicle overland access and use of existing non-paved roads in the study area. Operation of the transmission line would not result in any air emissions. Any air pollutants generated during project construction would be widely dispersed across the Project Study Area 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 direct or indirect impacts to air quality associated with routine operation and maintenance of the proposed transmission line. Construction and operation of the line would not exceed any state or federal standards for air quality, nor is a permit required for this type of activity. The Project is not expected to result in adverse cumulative impacts to air quality.

- **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 noise levels from the corona effect would be close to that of soft whispers and light rainfall. The Project is not expected to result in long-term adverse direct or indirect impacts from noise. No cumulative impacts to noise relative to existing and foreseeable developments are expected.

- **Water Resources, Wetlands, and Floodplains**. Each of the Route Alternatives was aligned to maximize the ability to avoid and span major surface waters, wetlands, and potential floodplains associated with the North Fork of the Republican River to the greatest extent possible. Sediment control measures will be implemented when working near drainages and irrigation ditches to minimize any indirect impacts from runoff and sedimentation. Structures would not be placed in any surface waters or wetland area. Access roads will be routed to avoid impacts to surface waters and wetlands to the greatest extent feasible. Tri-State would implement a Stormwater Management Plan as well as standard Environmental Protection Measures to prevent fill of wetlands and minimize erosion impacts. The Project is not expected to result in long-term adverse direct or indirect impacts to surface waters, wetlands, or floodplains. The Project is not expected to result in adverse cumulative impacts to water resources, wetland, and floodplains.

- **Vegetation.** The Project Study Area has been heavily influenced and disturbed by agricultural activities (grazing and cultivation). Construction activities could result in vegetation removal, trampling of vegetation, fugitive dust impacts, erosion, soil compaction, and sedimentation within the Project area. No long-term impacts to vegetation on a local, state, or regional scale are expected. Environmental Protection Measures would minimize and mitigate impacts to vegetation within the ROW and the surrounding area, and reduce the spread of noxious weeds; therefore, long-term direct and indirect adverse impacts to vegetation are not anticipated. The Project is not expected to result in adverse cumulative impacts to vegetation.

- **Wildlife and Wildlife Habitat**. Construction impacts to wildlife during construction of a transmission line include temporary disturbance from construction noise and equipment, temporary avoidance of construction zones, habitat loss, direct mortality to less mobile species, and potential increase in collision risk for avian species. Indirect impacts include affects to habitat from the spread of noxious weeds as well as the fragmentation of habitats from the development of a transmission ROW and associated access roads. The majority of these impacts are expected to be short-term and localized in nature.

- **Threatened and Endangered Species.** The U.S. Fish and Wildlife Service (USFWS) identified one federally listed threated and endangered species and habitat that may be present in the project area, the Whooping Crane (Endangered). Based on evaluation of the Whooping Crane and their habitat, the USFWS determined that the proposed project was not likely to adversely affect any federally listed threatened or endangered or candidate species, or any critical habitats. Based on the determinations in the Environmental Assessment, consultation with the USFWS and Tri-State's Standard Environmental Protection Measures, long-term adverse direct and indirect impacts to federally listed threatened and endangered species, candidate species or critical habitats are not expected. The Project is not expected to result in adverse cumulative impacts to wildlife and wildlife habitat. In a letter dated April 1, 2013, the USFWS concurred that t the proposed Project is not likely to adversely affect the whooping crane. Therefore, RUS has determined that the proposed Project is not likely to adversely affect any threatened or endangered species or critical habitat.

- **Recreation.** The primary location for recreation activities in the Project Study Area are the State Wildlife Areas (SWAs). All Route Alternatives would cross state-managed lands, including SWAs. Potentially impacted activities during construction include recreation opportunities include hunting, hiking, wildlife viewing, and fishing. During construction there may be restrictions to access along the transmission ROW which could result in temporary impacts to recreation activities. Wildlife may avoid construction areas, which could indirectly and temporarily affect wildlife viewing opportunities in these areas. As impacts associated with the construction timeframe would be temporary, long-term direct and indirect adverse impacts to recreation are not anticipated. No cumulative impacts to recreation relative to existing and foreseeable developments are expected.

- **Visual Resources.** Construction of the Project would create direct long-term impacts to visual resources. Each of the Route Alternatives would cross rural and agrarian areas with a low population density. While the Project would parallel existing roads in the immediate foreground, many of the county roads are lightly traveled and primarily used to access agricultural fields during the growing season or isolated rural residences. Tri-State identified Route Alternatives that minimize overall visual impacts by avoiding residences and taking advantage of topography to buffer views of the transmission line from residences, highways, and within SWAs to the greatest extent feasible. Tri-State's Environmental Protection Measures for visual resources would minimize direct and indirect impacts to visual resources. The Project is not expected to result in adverse cumulative impacts to visual resources.

- **Economics and Social Values**. The Project is expected to have a beneficial socio-economic impact on local communities and the state via temporary and annual tax revenues and by temporary local revenue increases that a construction workforce would contribute. The project would not have adverse direct or indirect impacts on the socio-economic environment. No cumulative impacts to economics and social values relative to existing and foreseeable developments are expected.

  Environmental Justice. Incomes in the Project Study Area are generally lower than the state average. This lower amount correlates to and is expected in rural areas, which typically have lower incomes than urban areas. However, fewer individuals live below the poverty level in the Project Study Area as compared to the state average. RUS has determined that the proposed Project would not have any adverse short-term or long-term direct or indirect impacts on minority or low income populations. No cumulative impacts to environmental justice relative to existing and foreseeable developments are expected.

- **Public Health and Safety**. The greatest danger from a transmission line is direct contact with electrical conductors. Accordingly, extreme caution must be exercised when operating vehicles and equipment for any purpose in close proximity to the proposed Project. Transmission line structures and the conductor may occasionally be hit by lightning during a thunderstorm; therefore, the area near towers and other tall objects, such as trees, should be avoided during thunderstorms. The proposed Project is designed with overhead ground wires and grounded towers to protect the system from damage from lightning. Tri-State will implement design standards and Environmental Protection Measures to minimize and mitigate and potential public health and safety issues. No cumulative impacts to public health and safety relative to existing and foreseeable developments are expected.

- **Cultural Resources**. A cultural resource literature search and records review was conducted. A Class III cultural resource survey was conducted on all uncultivated land along the Project route, and on a 10 percent sample of cultivated lands. The cultural resource survey resulted in the recording of 10 sites: two historic homesteads, three irrigation ditches and laterals, a manual cableway, a previously recorded segment of the current BNSF rail line, concrete fence posts, and a prehistoric chalcedony outcrop. In addition, 13 Isolated Occurrences (IOs) were documented. Once structure locations have been identified and access roads defined, an intensive Class III survey will be completed for new roads outside of the existing Area of Potential Effect (APE) in non-cultivated lands. In cultivated areas, surveys would be limited to those areas outside of the APE with the potential to yield cultural resources as identified during Class I and III surveys. In the event that any

archaeological or historic resources are discovered during construction activities, Tri-State will cease work immediately and notify RUS and the Colorado State Historic Preservation Officer. Work will not resume until the resources have been evaluated and approval to continue is received.

Tribal contacts were initiated with eight Native American tribes to solicit comments and concerns. None of the tribes identified properties of religious and cultural significance in the project area. Copies of the surveys were sent to the Native American tribes for review and information.

RUS has determined that the proposed Project will have no adverse effects to historic properties listed or eligible for listing on the *National Register of Historic Places*. No cumulative impacts to cultural resource relative to existing and foreseeable developments are expected.

- **Transportation and Access**. Construction activities would use existing private and public access as well as overland travel in the ROW. Temporary increases in traffic would be generated by construction activities. Potential short-term direct impacts from construction also could include traffic delays or temporary lane closures while conductors are strung between transmission structures across affected roadways. Long-term impacts to transportation and access are not anticipated. Tri-State will implement Environment Protection Measures to minimize short term direct and indirect impacts. The Project is not expected to result in adverse cumulative impacts to transportation and access.

- **Electrical Characteristics and Public Safety**. Electric and magnetic fields associated with the Project would be similar to that of household appliances at the edge of the ROW and would diminish rapidly. 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. No cumulative impacts to electrical characteristics and public safety relative to existing and foreseeable developments are expected.

- **Cumulative Impacts**. Cumulative impacts result from the incremental impact of an action when added to other past, present, and 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 majority of the study area is zoned for agriculture. Existing oil and gas development is extensive and the Kit Carson and Colorado Highland Wind Projects are also located in proximity

to the study area. The Wray Wind Energy project is currently in the permitting phase. Transmission lines can be sited to avoid sensitive areas such as cultural and biological resources, surface waters, wetlands, and floodplains, thereby reducing the cumulative impacts on the environment. The preferred alternative would utilize existing linear corridors, section lines, and access roads to the greatest extent feasible to reduce visual, land use, and transportation impacts. Agricultural operations could continue post-construction in proximity to the transmission ROW and between spans. The project is not expected to result in cumulative adverse effects to land uses and human resources in the study area.

F. PUBLIC INVOLVEMENT

Tri-State and RUS conducted an open and comprehensive public involvement process, including three rounds of public meetings. Public involvement for the Project began in September 2011 with two informational public meetings. In March 2012, joint agency and public scoping meetings were conducted by RUS. In August 2012, Tri-State hosted two route refinement meetings to present the Preferred Route and other alternatives to the public. Each round of meetings was held in both Burlington and Wray, Colorado. Section 4 of the EA summarizes the public involvement process and the scoping comments RUS received on the Project, which helped to guide the alternatives analysis and EA preparation.

The availability of the EA for public review was announced with newspaper advertising in both the *Yuma Pioneer* and *Burlington Record* newspapers on November 14th, November 21st, December 5th and December 12th, 2013. The EA was made publically available electronically on the RUS website, (http://www.rurdev.usda.gov/UWP-EA-Burlington-Wray.html), the Tri-State website (http://www.tristategt.org/Transmission/ Burlington-Wray.cfm), and in hard copy at Tri-State and both the Wray and Burlington Public Libraries. The comment period ended January 8th, 2013.

RUS received one letter containing four comments on the EA regarding: (1) purpose and need, (2) historic and cultural resources, (3) protected species, and (4) load forecast. RUS considered the comments and determined: (1) the purpose and need statement is appropriate and provides for consideration of a reasonable range of alternatives. In addition the CPUC has granted a Certificate of Public Convenience and Necessity for the Project; (2) as part of its decision-making on Tri-State's financing request, RUS has considered potential impacts for cultural and historic resources and determined that resources will not be adversely impacted; (3) RUS has considered potential impacts based on U.S. Fish and Wildlife Service's input and mitigation to minimize avian collisions will be utilized where necessary; and (4) RUS has sufficient load forecast information to assess the purpose and need for and alternatives to the Project, and the public has sufficient load forecast information to participate in the NEPA process in a

meaningful way. RUS appreciates the public's participation in the public involvement process for this Project.

G. 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:

- Land Use
- Geology and Soils
- Air Quality
- Noise
- Water Resource, Wetlands, and Floodplains
- Vegetation
- Wildlife and Wildlife Habitat
- Federally Listed and Candidate Species
- Recreation
- Visual Resources
- Economics and Social Values
- Environmental Justice
- Public Health and Safety
- Cultural Resources
- Transportation and Access
- Electrical Characteristics and Public Safety
- Cumulative Impacts

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 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.

H. RUS LOAN REVIEW AND RIGHT OF ADMINISTRATIVE REVIEW

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.

I. APPROVAL

This Finding of No Significant Impact is effective upon signature.
Approved by: _____ 2/11/14

James F. Elliott — Date
Acting Assistant Administrator - Electric Program
Rural Utilities Service