

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF COLORADO**

**IN THE MATTER OF THE APPLICATION OF)
TRI-STATE GENERATION AND)
TRANSMISSION ASSOCIATION, INC., (A))
FOR A CERTIFICATE OF PUBLIC)
CONVENIENCE AND NECESSITY FOR THE)
SAN LUIS VALLEY-CALUMET- COMANCHE) **Docket No. 09A-324E**
TRANSMISSION PROJECT, (B) FOR)
SPECIFIC FINDINGS WITH RESPECT TO)
EMF AND NOISE, AND (C) FOR APPROVAL)
OF OWNERSHIP INTEREST TRANSFER AS)
NEEDED WHEN PROJECT IS COMPLETED)**

**IN THE MATTER OF THE APPLICATION OF)
PUBLIC SERVICE COMPANY OF)
COLORADO (A) FOR A CERTIFICATE OF)
PUBLIC CONVENIENCE AND NECESSITY)
FOR THE SAN LUIS VALLEY TO CALUMET) **Docket No. 09A-325E**
TO COMANCHE TRANSMISSION PROJECT,)
(B) FOR SPECIFIC FINDINGS WITH)
RESPECT TO EMF AND NOISE, AND (C))
FOR APPROVAL OF OWNERSHIP)
INTEREST TRANSFER AS NEEDED WHEN)
PROJECT IS COMPLETED)**

REBUTTAL TESTIMONY AND EXHIBITS OF RICK THOMPSON

1 **Q. PLEASE STATE YOUR NAME.**

2 A. My name is Rick Thompson.

3 **Q. DID YOU FILE DIRECT TESTIMONY IN THIS DOCKET?**

4 A. Yes.

5 **Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?**

6 A. I respond primarily to the answer testimonies and depositions of James
7 Dauphinais, Daniel Pike, Dean Apostol, Tom Darin and Inez Dominguez. I
8 discuss various transmission line siting related issues referenced or

1 discussed by Messrs. Dauphinais, Pike, Apostol, Darin and Dominguez, as
2 associated with Public Service's proposed project.

3 **Q. IN HIS ANSWER TESTIMONY, MR. DAUPHINAIS IDENTIFIES**
4 **TRANSMISSION LINE ALTERNATIVES EMANATING FROM THE SAN**
5 **LUIS SUBSTATION TO THE NORTH. IS IT YOUR UNDERSTANDING**
6 **THAT THESE ALTERNATIVES MEET THE PURPOSE AND NEED FOR**
7 **THE PROJECT?**

8 A. No. Public Service witnesses Karen Hyde, Joseph Taylor, Gerry Stellern and
9 Thomas Green describe in their testimonies how these alternatives do not
10 fully meet the needs for the project.

11 **Q. IS IT YOUR UNDERSTANDING THAT MR. DAUPHINAIS' PROPOSED**
12 **SYSTEM ALTERNATIVES ARE INADEQUATE IN THEIR SCOPE?**

13 A. Yes. It is my understanding that Mr. Dauphinais' transmission line
14 alternatives leave the San Luis Valley and interconnect into the transmission
15 system to the north and east. Per testimony of other Public Service
16 witnesses, a project to the north must ultimately end up interconnecting into
17 the Comanche Substation in order to be comparable to the proposed project.
18 On pages 135-137 of his Deposition (Exhibit No. KTH-1), Mr. Dauphinais
19 describes how without adequate transfer capacity, new transmission would be
20 required to deliver sufficient power to the Front Range.

21 **Q. CAN YOU PROVIDE AN ESTIMATED LENGTH OF TRANSMISSION LINES**
22 **FOR A PROJECT NORTH OUT OF THE SAN LUIS VALLEY, ASSUMING**

1 **TRANSMISSION IS ALSO EXTENDED EAST INTO THE COMANCHE**
2 **SUBSTATION?**

3 A. Only generally. Per Mr. Dauphinais' responses to Public Service's second set
4 of Discovery Requests and his answers on pages 138-140 of his Deposition
5 (Exhibit KTH-1), it does not appear he has conducted any siting studies to
6 identify potential transmission line routes. Mr. Dauphinais does discuss a
7 simplistic approach to siting by simply sharing or following the right-of-way
8 from San Luis Valley Substation to Poncha Substation and provides
9 estimated mileages assuming that type of project configuration. Considering
10 Mr. Dauphinais' approach and approximating a line distance into Comanche
11 Substation without conducting a formal siting study, I would approximate 210-
12 230 miles of new transmission line would be required for a project from the
13 San Luis Valley Substation north to Poncha Substation, then east to
14 Comanche Substation. This mileage range also includes an estimated
15 transmission length from Calumet Substation to Comanche Substation, a
16 critical component of our project.

17 **Q. ON PAGE 9 LINES 22-23 OF HIS ANSWER TESTIMONY, MR. PIKE**
18 **INDICATES, "THE TRINCHERA RANCH IS A LAND AREA OF**
19 **SIGNIFICANT BREADTH AND DIVERSITY, WITH OUTSTANDING**
20 **NATURAL HABITAT AND OPEN SPACE, INCLUDING SCENIC VIEWS,**
21 **DIVERSE FOREST, WILDLIFE AND PLANT HABITATS, AND**
22 **AGRICULTURAL RESOURCES." HAVE YOU HAD THE OPPORTUNITY**
23 **TO ACCESS THE TRINCHERA RANCH TO CONFIRM THESE**

1 **OBSERVATIONS? DO YOU BELIEVE THE PONCHA PASS AREA AND**
2 **THE REGIONS EAST TOWARDS PUEBLO CONTAIN SIMILAR**
3 **CHARACTERISTICS AS DESCRIBED BY MR. PIKE?**

4 A. I have not had the opportunity to access the Trinchera Ranch. My
5 understanding from Mr. Pike's Answer Testimony is that the Trinchera Ranch
6 is privately-owned (Pike Answer Testimony, page 8), and therefore not
7 publicly accessible. I understand a few members of the public are allowed
8 limited access to the approximately 172,000 acre ranch through a Ranching
9 for Wildlife hunting program. A yearly hunting lottery is sponsored by the
10 Colorado Division of Wildlife (CDOW) in which hunters apply to the CDOW for
11 a hunting license in hopes of accessing the Trinchera Ranch to hunt big
12 game. Trinchera Ranch participates in this program (Pike Answer Testimony,
13 page 11). Through participation, Trinchera Ranch is also allowed to obtain
14 private landowner hunting licenses for its use. I also believe Trinchera Ranch
15 is open to corporate retreats, and it appears to allow hunters and fishermen
16 who are willing to pay a fee for access and who are granted that access by
17 Trinchera Ranch.

18 Tri-State's and Public Service's numerous requests for access to the
19 private ranch have been denied by Trinchera Ranch; the most that was
20 offered was to take us to public roads and a locked gate, but no farther, as
21 was experienced during an attempted site visit to view potential transmission
22 line corridors with Trinchera Ranch representatives on November 10, 2009.

1 However, I do not dispute many of Mr. Pike’s characterizations of the
2 Trinchera Ranch from my limited observations of this large private holding.

3 **Q. DO YOU BELIEVE THE PONCHA PASS AREA AND THE REGIONS EAST**
4 **TOWARDS PUEBLO CONTAIN SIMILAR CHARACTERISTICS AS THE**
5 **TRINCHERA RANCH AS DESCRIBED BY MR. PIKE?**

6 A. As a southern Colorado native who has recreated on public lands in the
7 Poncha Pass/Salida/Canon City area for many years, and as a past Front
8 Range Resource Advisory Council member for the United States Bureau of
9 Land Management’s Royal Gorge Field Office (2000-2006) which has
10 jurisdiction for much of the public land from the Poncha Pass to Canon City
11 area, I can emphatically state that the Poncha Pass area and the diverse
12 landscapes north and south of the Arkansas River from Poncha Pass over to
13 the Pueblo area are highly valued and deeply respected by those who live
14 and recreate there. This popular region of Colorado contains large expanses
15 of public lands with habitat critical to a variety of animal and plant species.
16 The region also includes designated wilderness and wilderness study areas.
17 The public lands here are also able to be viewed, accessed and utilized by
18 thousands of people each year.

19 **Q. YOU MENTION UNITED STATES BUREAU OF LAND MANAGEMENT**
20 **LANDS. WHAT OTHER ENTITIES HAVE JURISDICTION OVER LANDS**
21 **AND WOULD HAVE TO APPROVE A POTENTIAL TRANSMISSION LINE**
22 **ROUTE FROM THE SAN LUIS VALLEY SUBSTATION OVER PONCHA**
23 **PASS AND THEN EAST TO COMANCHE SUBSTATION?**

1 A. In addition to the Bureau of Land Management (BLM), the United States
2 Forest Service (USFS) is another federal agency that has jurisdiction over
3 lands in the Poncha Pass area and throughout this region. Any transmission
4 line proposed through the Poncha Pass area would have to cross through
5 BLM and/or USFS administered lands and be subject to their approval
6 processes.

7 Alamosa, Saguache, Chaffee, Fremont, Pueblo and possibly Rio
8 Grande Counties could also be involved in the approval process for this type
9 of project. There are also several communities in this area that could become
10 involved such as Poncha Springs, Salida, Cotopaxi, Canon City, Florence,
11 Pueblo West and the City of Pueblo, if a transmission line routing alternatives
12 were considered in their respective jurisdictions. Many new subdivisions are
13 also occurring from the Poncha Pass area east towards Pueblo West and
14 rural home construction activity continues throughout this portion of the state.
15 I would anticipate a high level of interest by local residents and their
16 respective local government representatives for any new transmission line
17 project out of the San Luis Valley to the north and east. Exhibit No. RLT-2 is
18 a map illustrating general features and ownerships in the region and depicts
19 many of the communities and features found there.

20 **Q. WHAT TYPES OF APPROVALS WOULD BE REQUIRED FOR A**
21 **NORTHERN TRANSMISSION LINE PROJECT CONTINUING TO THE**
22 **COMANCHE SUBSTATION?**

1 A. Siting this transmission line across federal lands (i.e., BLM and USFS in this
2 case) would require compliance with the National Environmental Policy Act
3 (NEPA) and subsequent approval of that use by involved federal agencies.
4 Following completion of the NEPA process, the BLM and/or USFS may issue
5 new transmission line permits to cross lands within their jurisdictions. As
6 mentioned, local land use approvals from the affected jurisdictions would also
7 be required.

8 **Q. ARE THERE SITING AND LAND RIGHTS RELATED ISSUES OF**
9 **CONCERN WITH A POTENTIAL TRANSMISSION LINE PROJECT**
10 **CROSSING FEDERAL LANDS TO THE NORTH AND EAST?**

11 A. Yes. First of all, we would have to discuss this drastic change in direction
12 with Tri-State, our partner in this project, to fully understand the implications.
13 My sense is that we would need to start the siting process over as this type of
14 northern project configuration has not been formally studied to develop
15 alternative transmission line routes. This requirement alone could easily
16 create up to a year or more delay in the project schedule in order to finalize
17 the required planning and system studies, gather new environmental resource
18 data, conduct field reviews, initiate new public involvement activities, and in
19 general start the whole transmission siting, permitting, and CPCN process
20 over.

21 Additionally, the land rights received from the federal government for a
22 project crossing their lands are limited in duration and subject to a variety of
23 terms and conditions. For example, Public Service and Tri-State have

1 received notification that the USFS is planning to conduct a controlled burn
2 over 2300 acres in the Poncha Pass area on lands within its jurisdiction due
3 to increased potential for high intensity fires. This activity is planned to occur
4 on lands immediately under and adjacent to the existing San Luis Valley -
5 Poncha 230 kV transmission line and is of concern to both Companies. I
6 have included a copy of the letter and associated maps as Exhibit No. RLT-3
7 describing this request.

8 **Q. YOU MENTION THIS PLANNED CONTROLLED BURN. DO YOU KNOW IF**
9 **THERE ARE OTHER AREAS OF CONCERN REGARDING FIRE DANGER**
10 **WITH THE NORTHERN PROJECT ALTERNATIVES?**

11 A. I am aware that fire danger is a major concern in many forested areas around
12 Colorado. The USFS Rocky Mountain Region provides data on its website
13 stating “forests in Colorado, Wyoming, and South Dakota that are
14 experiencing bark beetle epidemics at a historically unprecedented scale.”
15 The website address is: [http://www.fs.fed.us/r2/bark-](http://www.fs.fed.us/r2/bark-beetle/maps/colo/co-mpb-as08-8x11.pdf)
16 [beetle/maps/colo/co-mpb-as08-8x11.pdf](http://www.fs.fed.us/r2/bark-beetle/maps/colo/co-mpb-as08-8x11.pdf). A map entitled, “2008 Mountain
17 Pine Beetle Activity in Colorado” can be found on this website that illustrates
18 2000-2007 Mountain Pine Beetle Activity via aerial detection surveys on
19 forested lands. This map indicates areas of Mountain Pine Beetle activity in
20 Lodgepole and Ponderosa Pine where a potential northern routed
21 transmission project would cross through the Poncha Pass area. This map is
22 included as Exhibit No. RLT-4

1 **Q. MR. PIKE PROVIDES PHOTOGRAPHS OF VARIOUS LANDSCAPES AND**
2 **WILDLIFE ON TRINCHERA RANCH IN EXHIBIT DEP-2 OF HIS ANSWER**
3 **TESTIMONY. DO YOU BELIEVE SIMILAR DIVERSE LANDSCAPES AND**
4 **WILDLIFE SPECIES EXIST NEAR PONCHA PASS AND AREAS EAST**
5 **TOWARDS PUEBLO?**

6 A. Yes. It is common knowledge that populations of elk, deer, bighorn sheep,
7 mountain lion, pronghorn antelope and bear also inhabit this region of
8 Colorado. Habitats for many other plant and animal species such as the
9 Canada lynx, Mexican spotted owl, Gunnison sage-grouse and numerous
10 others are found here as referenced in Exhibit No. RLT-3. The Sangre de
11 Cristo Mountains, Mount Ouray, the Collegiate Range, Pikes Peak and the
12 Royal Gorge Bridge and Park and various scenic byways are just a few of the
13 features that can be viewed by those living and recreating in this highly
14 diverse and scenic area of Colorado. I provide two photographs taken on
15 November 23, 2009 at the summit of Poncha Pass along Highway 285 to help
16 characterize the beauty of this area. Exhibit No. RLT-5 is a photograph
17 looking to the south. Exhibit No. RLT-6 is a photograph looking to the north.
18 These are just two samples of the numerous scenic views that can be
19 experienced throughout this area of Colorado.

20 **Q. MR. DARIN DESCRIBES HIS PERCEPTIONS OF SITING A**
21 **TRANSMISSION LINE NORTH OUT OF THE SAN LUIS VALLEY. DO YOU**
22 **HAVE ANY OPINIONS REGARDING MR. DARIN'S COMMENTS?**

1 A. Yes. Mr. Darin references good siting potential for new power lines from
2 driving between the San Luis Valley Substation and Poncha Pass. However,
3 it does not appear Mr. Darin has conducted any detailed siting studies as a
4 basis for his comments, nor has Public Service or Tri-State conducted
5 detailed studies. However, both companies do have institutional knowledge
6 of the area, since we have existing transmission facilities located there.
7 Three existing transmission lines (230 kV, 115 kV, and 69 kV) generally run
8 north to south through the Poncha Pass area. Public Service and Tri-State
9 jointly-own the San Luis Valley – Poncha 230 kV line, which interconnects
10 into Western Area Power Administration’s (Western) Poncha Substation,
11 while the 115 kV and 69 kV lines interconnect into Public Service’s Poncha
12 Junction Substation about a mile north of Western’s Poncha Substation. The
13 230 kV and 69 kV lines actually share the same set of lattice type structures
14 for a few miles across public land on Poncha Pass, but otherwise the three
15 lines do not share right-of-ways. The 115 kV and 230 kV lines merge within
16 about ½ mile of each other before crossing near Highway 285 south of Villa
17 Grove and east of Saguache.

18 While it may make sense to parallel existing lines in certain
19 circumstances, many other factors must be considered as well. It is apparent
20 that Poncha Pass is an area where fire danger is an issue and there are
21 sensitive environmental habitats in the area to be considered when siting a
22 new transmission line as discussed in Exhibit No. RLT-3. Visual impacts of
23 any northern alternative would also need to be fully evaluated. From having

1 personally travelled north from the San Luis Valley Substation to the Poncha
2 Substation area, I can say there are incredible views of the Sangre de Cristo
3 Range to the east all the way to Poncha Pass, views of Mount Ouray and
4 Chipeta Peak can be experienced to the north and west. Mount Shavano and
5 other "Fourteeners" in the Collegiate Range can be viewed to the north from
6 the Poncha Springs area as shown in Exhibit No. RLT-7. There are
7 numerous private property owners with residences near Mr. Darin's proposed
8 northern route, as is illustrated in photographs Exhibit No. RLT-8 and Exhibit
9 No. RLT-9. These exhibits show just a few of the homes located near the
10 existing lines along Highway 285 south of Poncha Pass.

11 I do not believe Mr. Darin has conducted any formal visual analysis as
12 a basis for his comments and as described, there are tremendous views that
13 need to be considered with any new transmission line in the area. As
14 mentioned, many homes are also located throughout the area that would
15 need to be considered. There are other homes within 350 feet of either side
16 of the San Luis Valley - Poncha 230 kV transmission line just south of
17 Marshall Pass Road, approximately ½ mile west of Highway 285.

18 Constructability considerations in the mountainous and rocky terrain on
19 either side of Poncha Pass would also need to be more fully evaluated.
20 Exhibit No. RLT-10 provides a high-level illustration of the topographic relief in
21 this area. While the area in the San Luis Valley is relatively flat, mountainous
22 terrain surrounds the San Luis Valley.

1 As I mentioned, it is difficult to obtain federal approvals to locate a new
2 transmission line across USFS lands as well.

3 To summarize, there are many siting and construction related issues to
4 identify and evaluate when developing possible transmission line routes that
5 require more than a simple drive-by review.

6 **Q. DO YOU KNOW HOW LONG THE TRANSMISSION LINE FOR THE**
7 **PROPOSED PROJECT FROM SAN LUIS VALLEY SUBSTATION TO**
8 **CALUMET SUBSTATION TO THE COMANCHE SUBSTATION IS AT THIS**
9 **POINT IN THE PROCESS?**

10 A. Not precisely. We have not selected a preferred route at this point in time,
11 but have done a lot of work to identify potential corridors containing candidate
12 routes for evaluation. Based upon what we know to date, one could roughly
13 estimate the transmission line length for the project at approximately 140-150
14 miles.

15 **Q. MR. APOSTOL'S TESTIMONY PROVIDES SUGGESTIONS TO MINIMIZE**
16 **SCENIC IMPACTS ASSOCIATED WITH TRANSMISSION LINES. DO YOU**
17 **HAVE AN OPINION ABOUT POSSIBLE SCENIC IMPACTS OF A**
18 **PROJECT NORTH FROM THE SAN LUIS VALLEY OVER PONCHA PASS**
19 **AND EASTERLY TOWARDS THE PUEBLO AREA?**

20 A. Yes. I believe a northern and eastern routed transmission line project with a
21 length of approximately 210-230 miles would have more visual impact versus
22 an estimated 140-150 miles of transmission for the proposed project from the

1 increase in project length alone. This assumes that both projects are located
2 in somewhat similar settings, which I believe is generally the case here.

3 **Q. ON PAGE 11 LINE 13-18, MR. APOSTOL'S TESTIMONY DESCRIBES**
4 **SCENIC HIGHWAYS IN THE PROJECT LOCATION. ARE THERE ANY**
5 **SCENIC HIGHWAYS TO CONSIDER FOR A TRANSMISSION PROJECT**
6 **THAT WOULD CROSS THROUGH THE AREA LOCATED GENERALLY**
7 **NORTH OF CANON CITY?**

8 A. Yes. Several roads north of the Canon City area make up a scenic byway
9 known as, "The Gold Belt Tour". The High Park Road, Shelf Road and
10 Phantom Canyon Road run for several miles in a north to south direction in
11 this area. A transmission line in this area could cross one of more of these
12 roads.

13 **Q. ARE THERE OTHER SCENIC FEATURES IN THE CANON CITY AND**
14 **PUEBLO AREAS?**

15 A. Yes. Besides views of the Front Range of the Rocky Mountains including
16 Pikes Peak to the north, the world renowned and heavily visited Royal Gorge
17 Bridge is located along the Arkansas River just west of Canon City. Lake
18 Pueblo State Park, located on federal lands along the Arkansas River is a
19 highly visited recreation area immediately south of Pueblo West.

20 **Q. IN HIS TESTIMONY, MR. DOMINGUEZ DESCRIBES A POTENTIAL**
21 **DOUBLE-CIRCUIT 345 KV PROJECT FOR THE SAN LUIS VALLEY -**
22 **CALUMET PORTION OF THE PROJECT. WOULD THAT**

1 **CONFIGURATION CREATE ANY CONCERN FROM A SITING,**
2 **PERMITTING OR LAND RIGHTS ACQUISITION PERSPECTIVE?**

3 A. Yes I would have some concern. We have proceeded through the siting
4 process assuming a 230 kV configuration within a 150 wide right-of-way for
5 this portion of the project. I believe there would be bigger structures and
6 wider right-of-way required to accommodate 345 kV creating more potential
7 impact and increased cost. Project delays through the NEPA process with
8 this type of change are likely. Tri-State witnesses may have additional
9 thoughts on this issue as well.

10 **Q. IN YOUR EXPERIENCE, IS IT DIFFICULT TO SITE OR LOCATE NEW**
11 **TRANSMISSION LINES?**

12 A. Yes. New utility facilities in general, and overhead transmission lines in
13 particular, are extremely difficult to site. Everyone wants reliable energy
14 service, but people do not want the infrastructure near them. A common
15 acronym for this phenomenon is “NIMBY” or “Not-In-My-Back-Yard”. The
16 NIMBY attitude is expressed by almost everyone, including people living in
17 rural and urban areas. This attitude can evoke high levels of emotion from
18 those involved. At times this emotion makes it very difficult for utilities like
19 Public Service Company and Tri-State to communicate its need to maintain a
20 larger scale view regarding the services it must provide at reasonable cost,
21 while still being sensitive to individuals potentially affected by projects.
22 Transmission facilities must be located somewhere in order for the Company
23 to serve customers.

1 Q. **WOULD YOU ANTICIPATE OPPOSITION FOR ALTERNATIVE PROJECTS**
2 **GOING NORTH AS DESCRIBED BY MR. DAUPHINAIS AND MR. DARIN?**

3 A. Yes. I would anticipate public opposition at a similar and most likely a greater
4 level for a northern and eastern project as that shown to date for our project.
5 The potential environmental impacts of a northern project across public lands
6 and the continued residential development activities near the communities of
7 Poncha Springs, Salida, Cotopaxi, Canon City and Pueblo West would almost
8 certainly create a high level of interest for a new transmission line project in
9 those areas. Simply stated, a longer northern and eastern route across
10 environmentally sensitive, scenic, public lands and near many property
11 owners is likely to affect as many or more people than the proposed project.

12 Q. **DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?**

13 A. Yes.