



IN THE MATTER OF THE
APPLICATION OF PUBLIC SERVICE
COMPANY OF COLORADO FOR A
CERTIFICATE OF PUBLIC
CONVENIENCE AND NECESSITY
FOR THE SAN LUIS VALLEY –
CALUMET – COMANCHE
TRANSMISSION PROJECT

DOCKET NO. 09A-324E &
DOCKET NO. 09A-325E

REBUTTAL TESTIMONY
AND EXHIBITS

December 2, 2009

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IN THE MATTER OF THE
APPLICATION OF PUBLIC SERVICE
COMPANY OF COLORADO FOR A
CERTIFICATE OF PUBLIC
CONVENIENCE AND NECESSITY FOR
THE SAN LUIS VALLEY – CALUMET –
COMANCHE TRANSMISSION PROJECT

REBUTTAL TESTIMONY
AND EXHIBITS OF

Karen T. Hyde

December 2, 2009

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**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 KAREN T. HYDE

1 I. **INTRODUCTION AND QUALIFICATIONS**

2 Q. **PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

3 A. My name is Karen T. Hyde. My business address is Xcel Energy Inc., 1225
4 Seventeenth Street, Denver, Colorado 80202.

5 Q. **BY WHOM ARE YOU EMPLOYED AND WHAT IS YOUR POSITION?**

1 A. I am employed by Xcel Services Inc. (“XES”) as Vice President, Rates and
2 Regulatory Affairs - Colorado. XES is a wholly owned subsidiary of Xcel
3 Energy Inc. (“Xcel Energy”).

4 **Q. WHOM ARE YOU REPRESENTING IN THIS PROCEEDING?**

5 A. I am testifying on behalf of Public Service Company of Colorado (“Public
6 Service” or “the Company”), an operating public utility subsidiary of Xcel
7 Energy and the applicant in this proceeding.

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

9 A. No, I did not.

10 **Q. HAVE YOU INCLUDED A DESCRIPTION OF YOUR QUALIFICATIONS,
11 DUTIES, AND RESPONSIBILITIES?**

12 A. Yes. A description of my qualifications, duties, and responsibilities is included
13 as Attachment A.

14 **Q. WHAT HAVE YOU REVIEWED IN PREPARATION FOR YOUR
15 TESTIMONY?**

16 A. I have reviewed Public Service’s Application, Testimony and Exhibits, and the
17 Answer testimonies of Tom Darin on behalf of Western Resources
18 Advocates, Morey Wolfson on behalf of the Governor's Energy Office and
19 Michael McFadden and James Dauphinais on behalf of Trinchera Ranch. I
20 also have reviewed the transcripts of the public hearings that were held in
21 Walsenburg and Alamosa.

1 from there to the Pueblo area. Mr. Thompson's testimony is responsive to
2 Mr. Dauphinais, Mr. Pike, Mr. Apostol, Mr. Darin, and Mr. Dominguez.

3 Mr. Danny Pearson addresses concerns expressed by Mr. Dominguez
4 related to EMF and noise. Mr. Pearson presents information related to the
5 scenic nature of the Trinchera Ranch and how transmission lines can be
6 located to reduce the visibility of the project.

7 Public Service also relies upon the rebuttal testimony filed by Tri-State
8 witnesses Mr. Andrew Leoni and Ms. Nicole Korbe.

9 **IV. PURPOSE OF THE PROPOSED PROJECT**

10 **Q. WHAT DID MR. DAUPHINAIS STUDY WHEN HE EXAMINED**
11 **ALTERNATIVES TO THE PROPOSED PROJECT?**

12 A. Mr. Dauphinais stated in Exhibit JRD-1 that the purpose of his transmission
13 study was to examine alternatives to the double circuit 230 kV San Luis
14 Valley to Calumet transmission line portion of the proposed project,
15 alternatives that in conjunction with the remainder of the proposed project, (i)
16 address the reliability issues in the San Luis Valley area and northern New
17 Mexico, and (ii) provide sufficient additional transmission capability to support
18 the level of new service generation additions that Public Service has in its
19 approved resource plan located in the San Luis Valley and
20 Calumet/Walsenburg areas. In explaining what this latter purpose means,
21 Exhibit JRD-1 goes on to state that the companies (Tri-State and Public
22 Service) have only "publicly identified potential commitments for new
23 generation of between 280 to 310 megawatts in the San Luis Valley area,

1 energy resources zone four, and between 200 and 250 megawatts in the
2 Calumet/Walsenburg area, energy resource zone five.” These are the MW
3 amounts that Public Service identified in Docket 07A-447E (the Public Service
4 2007 Resource Planning Docket) as its preferred portfolio. The Commission
5 has since approved a different preferred portfolio, which increases the MW of
6 resources in Energy Resource Zone 4 to the 300 MW to 355 MW range, and
7 in Energy Resource Zone 5 in the 200 to 250 MW range. Mr. Dauphinais’
8 alternatives do not meet either the need requirements of the initial Public
9 Service preferred plan or the expanded plan approved by the Commission in
10 Docket No. 07A-447E. This is shown by other Public Service rebuttal
11 witnesses.

12 Moreover, whether Public Service’s current plans are for 280 or 355
13 MW of solar generation in the San Luis Valley, I think Mr. Dauphinais missed
14 the point -- Public Service Company is not proposing these transmission
15 additions to only meet our current short-listed generation additions; these
16 transmission additions are necessary for our company to meet our longer
17 term objectives for both renewable energy and carbon dioxide emissions
18 reductions. Public Service and Tri-State don’t want to be back before the
19 Commission in a couple of year’s time seeking to upgrade the transmission
20 system again, so we are looking further out than just the next few years. The
21 potential solar resources in the San Luis Valley are in the thousands of
22 megawatts, not hundreds. Artificially limiting transmission to the bare
23 minimum necessary to connect resources that result from the 2007 Resource

1 Planning Docket would not be wise, although as I stated earlier, Mr.
2 Dauphinais' plan does not even meet that objective. Mr. Dauphinais may
3 have developed alternatives that do not cross his client's 172,000 acre ranch,
4 but these alternatives do not serve the needs of Public Service, Tri-State, and
5 the public policy enunciated by the Colorado General Assembly, which has
6 encouraged Colorado utilities to invest in and construct transmission to
7 facilitate the increase of renewable resources and the reduction of carbon
8 dioxide emissions.

9 **Q. HOW DOES MR. DAUPHINAIS DEFINE THE PURPOSE OF THE**
10 **PROPOSED PROJECT?**

11 A. When asked in his deposition whether his transmission study addressed the
12 purposes of the project, Mr. Dauphinais stated that he "disputed the need to
13 provide for the opportunity for approximately 1500 megawatts of generation"
14 because in his view Public Service and Tri-State "haven't demonstrated a
15 need for that much transfer capability at this time." Mr. Dauphinais defined
16 need "based on firm commitments or the potential for firm commitments that
17 exist" for "generation that needs to be supported." See Exhibit No. KTH-1, p.
18 48, l. 15 – p. 49, l. 18. I believe that Mr. Dauphinais has defined a project
19 purpose that is way too narrow.

20 **Q. DO MR. DAUPHINAIS' PROPOSED ALTERNATIVES SATISFY PUBLIC**
21 **SERVICE'S NEEDS FOR THE PROJECT?**

22 A. Most definitely not. Other Public Service and Tri-State witnesses look at Mr.
23 Dauphinais' proposals in detail. I will just comment at a high level that his

1 alternatives fall far short of our proposal and fail to ensure that the power can
2 be brought to our larger load centers. In other words, he does not propose a
3 comprehensive transmission solution but rather two disjointed transmission
4 segments. In order to avoid a path east over La Veta pass, he proposes
5 alternatives that take power out of the SLV to “nowhere” and leaves the
6 segments intact from Walsenburg to Calumet to Comanche. In his Answer
7 Testimony, Mr. Wolfson correctly expressed our concern: if we only look to
8 the bare minimum of what we need today, we won’t further public policy goals
9 and create the transmission pathways to move power from the sources of
10 renewable energy to the demand for power.

11 **Q. WHAT RENEWABLE RESOURCES ARE REASONABLY FORESEEABLE**
12 **IN THE NEXT TEN YEARS, AFTER THE 2007 RESOURCE PLANNING**
13 **RESOURCES ARE PLACED IN SERVICE?**

14 A. There are at least three sources where we can look to make this
15 determination. First, Public Service recently filed our 2010 RES Compliance
16 Plan, which can be found at:

17 [http://www.xcelenergy.com/Colorado/Company/About_Energy_and_Rates/Re](http://www.xcelenergy.com/Colorado/Company/About_Energy_and_Rates/Resource%20and%20Renewable%20Energy%20Plans/Pages/RenewableEnergyStandardCompliancePlan.aspx)
18 [source%20and%20Renewable%20Energy%20Plans/Pages/RenewableEnergy](http://www.xcelenergy.com/Colorado/Company/About_Energy_and_Rates/Resource%20and%20Renewable%20Energy%20Plans/Pages/RenewableEnergyStandardCompliancePlan.aspx)
19 [StandardCompliancePlan.aspx](http://www.xcelenergy.com/Colorado/Company/About_Energy_and_Rates/Resource%20and%20Renewable%20Energy%20Plans/Pages/RenewableEnergyStandardCompliancePlan.aspx)

20 As stated in Volume 1, Section 7, page 7 of the 2010 RES Compliance Plan,
21 among the renewable generation resources included in the Company's RES
22 Plan are the following resources:

- 23 • Approximately 350 MW of new central station solar resources, with
24 approximately 280 MW considered to be Section 123 resources.

- 1 • Approximately 700 MW of new wind generation,
- 2
- 3 • Three 250 MW solar thermal facilities in 2016, 2017, and 2018, totaling
- 4 to 750 MW. These resources were not considered to be Section 123
- 5 Resources.

6 The resources listed in the first two bullet points are consistent with the
7 Commissions recent decisions in Docket No. 07A-447E. The additional 750
8 MW of solar thermal resources reflect an expectation that these resources will
9 be developed and acquired in the next resource plan.

10 Based on the work described by Mr. Wolfson for SB 07-91, it is likely
11 that at least the majority of these resources will be located in the San Luis
12 Valley. As can be seen from the map (which is an excerpt from the SB 07-91
13 report attached to my testimony as Exhibit No. KTH-3), the San Luis Valley
14 has the best location for the development of concentrating solar power
15 facilities. Second, in my experience, bidders who have devoted the time,
16 energy and resources to submitting a bid but who are not chosen as winning
17 bidders often bid again in future RFPs. The availability of transmission
18 capacity is watched carefully by bidders; they will look to develop projects in
19 areas where it is likely that they will have an economic advantage over
20 bidders in another area. An economic advantage can be gained from things
21 like the quality of the solar resource and the availability of transmission
22 capacity. It makes sense to assume that we will receive good competitive
23 bids in the future for additional solar facilities that propose to locate in the San
24 Luis Valley, if we have sufficient transmission to export the solar power from
25 the SLV to the Colorado Front Range load centers.

1 Third, we can look to LGIP (Large Generator Interconnection Process)
2 requests. I have attached to my testimony as Highly Confidential Exhibit No.
3 KTH-4 Public Service's wind and solar interconnection requests as of October
4 5, 2009. Highly Confidential Exhibit No. KTH-4 shows that there were
5 interconnection requests for 1,220 MW of solar in ERZ 4, and 0 MW of solar
6 for ERZ 5 (I would note there were LGIP requests for 1,798 of wind in ERZ 5).
7 While LGIP requests often do not result in a project being developed, they are
8 one indicator of what developer interests there are in each Energy Resource
9 Zone, and what kind of resources are most likely to be developed in each
10 ERZ.

11 **Q. DO MR. DAUPHINAIS' PROPOSED ALTERNATIVES PROVIDE ENOUGH**
12 **EXPORT CAPACITY FOR PUBLIC SERVICE'S NEEDS IN THE**
13 **REASONABLY FORESEEABLE FUTURE?**

14 A. No. As detailed in the testimonies of Joseph Taylor, Thomas Green, and
15 Gerry Stellern, none of his alternatives provides enough capacity to allow the
16 solar generation in Public Service's current resource plan approved by the
17 Commission or in Public Service's current proposed ten year renewable plan.
18 Even if Mr. Dauphinais claims about export capacity were true, it is not hard
19 to foresee that the export limits for ERZ 4 will be exceeded relatively quickly if
20 only one additional 250 MW thermal plant is added to the capacity associated
21 with the 2009 All-Source RFP.

1 **Q. YOU STATED THAT MR. DAUPHINAIS' PURPOSE IS NOT THE SAME AS**
2 **THAT OF PUBLIC SERVICE. WHAT ARE PUBLIC SERVICE'S**
3 **PURPOSES OF THE PROPOSED PROJECT?**

4 A. The purposes of the proposed project are two fold. First, we need this project
5 to provide transmission access to resources that are expected to be
6 developed in Energy Resource Zones 4 and 5 as a result of the approved
7 resource plan in Docket No. 07A-447E *and* in the future. This is in
8 compliance with the legislative directive in Senate Bill 07-100 ("SB 07-100") to
9 mitigate transmission constraints to each Energy Resource Zone. The
10 second purpose of the project is to address reliability concerns for our
11 customers in the San Luis Valley area.

12 **Q. WHAT IS THE GENESIS OF SB 07-100?**

13 A. The Sixty-Sixth General Assembly passed SB 07-100 upon the
14 recommendation of the 2006 Transmission Task Force on Reliable Electricity
15 Infrastructure ("Task Force"). In its November 1, 2006 Report, the Task Force
16 recognized that "Colorado's ability to ensure the continued supply of
17 affordable, reliable electricity and to build a vibrant economy depends on
18 sufficient transmission capability." The Task Force indicated that "[t]oday the
19 system is strained and, if current trends continue, there will not be adequate
20 transmission to meet the needs."

21 To address these concerns, the Task Force made four
22 recommendations, including establishing a transmission cost recovery rider to
23 create a robust and reliable transmission system to meet Colorado's future

1 energy needs, and identifying renewable generation resource development
2 areas within Colorado that have potential to support competition among
3 renewable energy developers for development of renewable resource
4 generation projects.

5 In response to these recommendations, the Colorado Legislature
6 passed SB 07-100, codified, in relevant part, at § 40-2-126, C.R.S. SB 07-
7 100 implements measures to ensure the adequacy of Colorado's electric
8 transmission infrastructure.

9 **Q. WHAT DOES SB 07-100 PROVIDE?**

10 A. Colorado Revised Statute § 40-2-126 provides:

11 (1) As used in this section, "energy resource zone" means a
12 geographic area in which transmission constraints hinder the delivery
13 of electricity to Colorado consumers, the development of new electric
14 generation facilities to serve Colorado consumers, or both.

15 (2) On or before October 31 of each odd-numbered year, commencing
16 in 2007, each Colorado electric utility subject to rate regulation by the
17 commission shall:

18 (a) Designate energy resource zones;

19 (b) Develop plans for the construction or expansion of transmission
20 facilities necessary to deliver electric power consistent with the timing
21 of the development of beneficial energy resources located in or near
22 such zones;

23 (c) Consider how transmission can be provided to encourage local
24 ownership of renewable energy facilities, whether through renewable
25 energy cooperatives as provided in section [7-56-210](#), C.R.S., or
26 otherwise; and

27 (d) Submit proposed plans, designations, and applications for
28 certificates of public convenience and necessity to the commission for
29 simultaneous review pursuant to subsection (3) of this section.

1 (3) The commission shall approve a utility's application for a certificate
2 of public convenience and necessity for the construction or expansion
3 of transmission facilities pursuant to paragraph (b) of subsection (2) of
4 this section if the commission finds that:

5
6 (a) The construction or expansion is required to ensure the reliable
7 delivery of electricity to Colorado consumers or to enable the utility to
8 meet the renewable energy standards set forth in section 40-2-124;
9 and

10
11 (b) That the present or future public convenience and necessity require
12 such construction or expansion.

13
14 (4) Notwithstanding any other provision of law, in any application for a
15 certificate of public convenience and necessity for the construction or
16 expansion of transmission facilities pursuant to paragraph (b) of
17 subsection (2) of this section, the commission shall issue a final order
18 within one hundred eighty days after the application is filed. If the
19 commission does not issue a final order within that period, the
20 application shall be deemed approved.

21 **Q. WHAT DID THE COMMISSION RULE WITH RESPECT TO WHETHER THE**
22 **PROPOSED PROJECT IS SUBJECT TO SB 07-100?**

23 A. The Commission ruled that, if a utility meets the requirements contained in
24 subsection (2) of § 40-2-126, then the standard of review contained in
25 subsection (3) and the expedited timeline contained in subsection (4) both
26 apply. However, if a utility does not meet these requirements, then neither the
27 standard of review nor the expedited timeline apply. Because the
28 Commission found that Public Service did not meet certain procedural
29 requirements in subsection (2) of the statute, the Commission held that the
30 standard of review contained in § 40-2-126(3)(a), C.R.S., does not apply to
31 this docket. See Decision No. C09-1004 (September 14, 2009), paragraph
32 10. The Commission further stated, however:

1 We find that, in the abstract, the presence or absence of contracts by a
2 utility for particular generation resources does not by itself establish the
3 need for a transmission line or lack thereof. Instead, we believe that
4 the need for a transmission line should be considered in light of the
5 evidence and arguments presented at the evidentiary stage of the
6 proceeding. We will, of course, be guided by the statutory standards
7 that “the present or future public convenience and necessity require or
8 will require such construction.

9 See Decision No. C09-1004, paragraph 11. The Commission went on to find
10 that Public Service’s obligation to meet the renewable energy standards,
11 particularly specific solar electric generation standards set forth in § 40-2-124,
12 C.R.S., can be considered as a factor in determining whether there is a need
13 for the proposed transmission line project, and that the general legislative
14 policy directives related to development of renewable energy such as those
15 found in § 40-2-123, C.R.S., may also be considered as one of the factors in
16 this determination. See Decision No. C09-1004, paragraph 12.

17 **Q. WHAT ARE THE GENERAL LEGISLATIVE POLICY DIRECTIVES**
18 **RELATED TO DEVELOPMENT OF RENEWABLE ENERGY SUCH AS**
19 **THOSE FOUND IN §§ 40-2-123 and 40-2-124, C.R.S.,?**

20 A. Section 40-2-123(1) states in relevant part:

21 The commission shall give the fullest possible consideration to the
22 cost-effective implementation of new clean energy and energy-efficient
23 technologies in its consideration of generation acquisitions for electric
24 utilities, bearing in mind the beneficial contributions such technologies
25 make to Colorado's energy security, economic prosperity,
26 environmental protection, and insulation from fuel price increases.
27

28 Similarly, the Legislative declaration to Section 40-2-124 provides:

29
30 Energy is critically important to Colorado's welfare and development,
31 and its use has a profound impact on the economy and environment.
32 Growth of the state's population and economic base will continue to

1 create a need for new energy resources, and Colorado's renewable
2 energy resources are currently underutilized.

3
4 Therefore, in order to save consumers and businesses money, attract
5 new businesses and jobs, promote development of rural economies,
6 minimize water use for electricity generation, diversify Colorado's
7 energy resources, reduce the impact of volatile fuel prices, and
8 improve the natural environment of the state, it is in the best interests
9 of the citizens of Colorado to develop and utilize renewable energy
10 resources to the maximum practicable extent.

11 These legislative pronouncements indicate to me that renewable
12 energy should be developed to the "maximum practicable extent," and new
13 clean energy such as concentrating solar power (CSP) plants are especially
14 encouraged because of the beneficial contributions it makes to Colorado's
15 energy security, economic prosperity, environmental protection, and
16 insulation from fuel price increases.

17 **Q. HOW DO THESE LEGISLATIVE PRONOUNCEMENTS RELATE TO MR.**
18 **DAUPHINAIS' TESTIMONY?**

19 A. Mr. Dauphinais states in his Answer Testimony at page 11 that "It is not
20 necessarily inappropriate to size transmission capability slightly in excess of
21 the need for the delivery power from committed resources." In his deposition
22 Mr. Dauphinais explained the meaning of this statement:

23 That means some amount in excess but not an overly large amount,
24 and it is probably best explained by the nature of adding transmission
25 capacity. Transmission capacity when you add to it ... it tends to be a
26 lumping nature, you can't add a very precise amount, you need exactly
27 223 megawatts, you can't do that, so you are going to be usually
28 putting something in that's larger than the capability you need, but
29 there are things that might give you 250 megawatts of capability, 300
30 megawatts of capability, 565 megawatts of capability, those outliers
31 are inappropriate. I don't need that unless there is real hard evidence
32 showing that you are going to be using that capacity very, very soon,
33 and so a small amount over or a minimal amount over is appropriate,

1 but when you get to larger amounts, it no longer is appropriate unless
2 the costs are equal between all the alternatives.
3 Exhibit No. KTH-1, p. 158, ll. 4-10. Asked what “very, very soon” means, Mr.
4 Dauphinais responded: “I’d say within two to three years of the time that -- of
5 past the horizon building a new line.” Exhibit No. KTH-1, p. 158, ll. 11-15.

6 **Q. DO YOU AGREE WITH MR. DAUPHINAIS ON HIS PARAMETERS OF**
7 **TRANSMISSION PLANNING AND CONSTRUCTION?**

8 A. No. I disagree with Mr. Dauphinais that a major new transmission line should
9 be built only to accommodate “slightly in excess” of the need for the delivery
10 power from committed generation resources, which he defines to be
11 resources that will be in place within two to three years of building the
12 transmission line. Such an approach is inconsistent with good transmission
13 planning and with the Colorado Legislature’s desire that renewable energy be
14 developed to the “maximum practicable extent,” and the encouragement of
15 new clean energy technologies such as CSP.

16 From a transmission planning point of view, it does not make sense to
17 build major transmission facilities in such a limited piecemeal fashion.
18 Instead, longer range plans should be use to anticipate the need for
19 transmission over the long term and to develop a plan that accommodates
20 long term needs. From a renewable energy point of view, both the General
21 Assembly and the Colorado Public Utilities Commission have encouraged our
22 company to construct transmission to energy resource zones where
23 renewable resources are likely to be located, to facilitate investment in
24 renewable resources and the reduction in greenhouse gas emissions.

1 Q. IF THE STANDARD OF REVIEW CONTAINED IN § 40-2-126(3), C.R.S.,
2 DOES NOT DIRECTLY APPLY TO THIS DOCKET, HOW CAN PUBLIC
3 SERVICE DESIGN TRANSMISSION FACILITIES TO ACCOMMODATE
4 RENEWABLE GENERATION OVER A LONGER HORIZON THAN THAT
5 SUGGESTED BY MR. DAUPHINAIS?

6 A. Public Service is still subject to the requirement in § 40-2-126(2)(b) to develop
7 plans for the construction or expansion of transmission facilities necessary to
8 deliver electric power consistent with the timing of the development of
9 beneficial energy resources located in or near the Company's designated
10 Energy Resource Zones. Further, one of the legislative policy directives that
11 Public Service must abide is the Legislative Declaration to § 40-2-126:

12 (1) The general assembly finds, determines, and declares that:

- 13 (a) A robust electric transmission system is critical to ensuring the
14 reliability of electric power for Colorado's citizens;
- 15 (b) Colorado's vibrant economy and high quality of life depend on
16 the continued availability of clean, affordable, reliable
17 electricity; and
- 18 (c) Therefore, Colorado utilities should continually evaluate the
19 adequacy of electric transmission facilities throughout the
20 state and should be encouraged to promptly and efficiently
21 improve such infrastructure as required to meet the state's
22 existing and future energy needs.

23 Therefore, regardless whether the standard of review in § 40-2-126(3)
24 applies, the proposed project is part of Public Service's plan to promptly and
25 efficiently construct transmission facilities necessary to deliver electric power
26 consistent with the timing of the development of beneficial energy resources
27 located in ERZ 4 and ERZ 5.

1 As I noted previously, the Commission found in Decision No. C09-1004
2 that it will be guided by the statutory standards that “the present or future
3 public convenience and necessity require or will require such construction” in
4 determining whether to grant a CPCN in this docket. This is the standard
5 enunciated in § 40-5-101 and § 40-2-126(3)(b), C.R.S.

6 Looking to § 40-2-126, C.R.S. in its entirety, it appears that the
7 purpose of the statute was to create a separate, expedited procedure for
8 utilities to obtain a CPCN where certain procedural strictures are followed.
9 Thus, in a case where a utility submits proposed transmission plans,
10 designations of energy resource zones, and applications for certificates of
11 public convenience and necessity to the commission for simultaneous review,
12 then the utility’s CPCN application will be subject to subsection (3) of the
13 statute concerning standard of review, and subsection (4) of the statute
14 concerning a 180-day timeline. As indicated above, the Commission found
15 that Public Service did not properly follow the procedural strictures, and thus
16 subsections (3) and (4) do not apply.

17 However, I want to be clear that Public Service does not believe the
18 standard of review in subsection (3) of § 40-2-126, C.R.S. is any easier to
19 satisfy than § 40-5-101. Under both §§ 40-5-101 and 40-2-126(3), a utility
20 must show that “the present or future public convenience and necessity
21 require or will require such construction.” The only difference between §§ 40-
22 5-101 and 40-2-126(3) is that the latter includes another prerequisite to
23 obtaining a CPCN, namely, showing that the construction or expansion is

1 required to ensure the reliable delivery of electricity to Colorado consumers or
2 to enable the utility to meet the renewable energy standards set forth in
3 section 40-2-124. Thus, in order to have the benefit of a 180-day expedited
4 timeline, a utility must (1) meet the procedural requirements of § 40-2-126; (2)
5 show that the construction or expansion of the transmission line is required to
6 ensure the reliable delivery of electricity to Colorado consumers or to enable
7 the utility to meet the renewable energy standards set forth in section 40-2-
8 124; and (3) show that the present or future public convenience and necessity
9 require or will require construction of the transmission line. As the
10 Commission has ruled that the procedural strictures have not been met,
11 Public Service must show in this docket only that the present or future public
12 convenience and necessity require or will require construction of the
13 proposed project.

14 Public Service believes that the “present or future” public convenience
15 and necessity standard accommodates a reasonable horizon for anticipated
16 beneficial energy resources in Energy Resource Zones 4 and 5.

17 **Q. WHAT DOES MR. McFADDEN’S TESTIMONY STATE WITH REGARD TO**
18 **THE PRESENT OR FUTURE PUBLIC CONVENIENCE AND NECESSITY?**

19 A. Mr. McFadden clarified in his deposition that he is not recommending that the
20 Commission grant or deny the requested CPCN in this docket. Exhibit No.
21 KTH-2, p.70, ll. 10-14. Instead, Mr. McFadden opines that, if the Commission
22 does grant a CPCN, it should be conditioned on Public Service actually
23 connecting generating facilities at sufficient levels to justify the transmission

1 facilities. McFadden Answer Testimony, pp. 18-19. Asked what MW number
2 would be a “sufficient level,” Mr. McFadden responded:

3 [That] [w]ould be the capacity of the facilities less the reserve
4 requirements taking into consideration the lumpiness of the facilities.
5 In other words, it doesn't have to occur on day one, it has to be a
6 planning perspective that if you are building, I think this is a 345 K kV
7 line let's just use that number. ... Whatever would be a reasonable
8 reserve depending on the performance of the facilities, that peak, the
9 remainder should be necessary to provide service to the customer.

10 Exhibit No. KTH-2, p.110, ll. 7 - 23. Mr. McFadden was then asked how soon
11 Public Service would have to connect the generation facilities to meet his
12 requirement (i.e., sufficient MW levels to meet capacity of the project less
13 reserve margin at peak conditions), and he replied that he would “have
14 trouble” if it was 20 years, and “might have trouble” if it was 10 years, or 5
15 years, but his “off the cuff speculative number” would be less than five years.
16 Exhibit No. KTH-2, p.110, l. 24 – p.111, l. 16.

17 **Q. HOW DO YOU RESPOND TO MR. McFADDEN’S “OFF THE CUFF**
18 **SPECULATIVE NUMBER” THAT THE CPCN SHOULD BE CONDITIONED**
19 **ON GENERATION FACILITIES BEING CONNECTED TO THE PROPOSED**
20 **PROJECT WITHIN FIVE YEARS OF THE IN-SERVICE DATE OF THE**
21 **PROJECT AT SUFFICIENT LEVELS TO MEET THE CAPACITY OF THE**
22 **PROJECT LESS RESERVE MARGIN AT PEAK CONDITIONS?**

23 A. Mr. McFadden’s five year deadline is not much different than Mr. Dauphinais’
24 two to three year deadline. The short answer is that we are not building a
25 major transmission line that will have a 50-year or greater life expectancy to
26 only accommodate the next few years of resource need. We expect to

1 continue to add resources to use this transmission line over the life of the
2 facility. This may occur within the next five years or it may take longer. The
3 length of time it takes to use the full capacity of any transmission line is not
4 material. What is important is whether we expect more generation to be built
5 in the SLV area if this transmission line is constructed. The answer that that
6 question is clearly yes. As was indicated in Joe Taylor's testimonies and in
7 the Answer Testimony of Morey Wolfson, the reasonably feasible solar CSP
8 and PV potential in the San Luis Valley is in the thousands of megawatts.

9 As noted above, the Commission has indicated that it can consider the
10 legislative policy directives in deciding whether to grant a CPCN. Public
11 Service views the recent legislation concerning renewable energy and
12 transmission (e.g., §§ 40-2-123, 124, and 126, C.R.S.) as the Colorado
13 legislature's recognition and justification of the need for transmission planning
14 and development to move out in front of the development of renewable
15 generation resources in order to ensure successful development of new
16 renewable generation in Colorado. In other words, the legislature has issued
17 policy directives that transmission should be approved and constructed in
18 regions that have the potential for the development of renewable resources
19 prior to there being executed contracts. Mr. McFadden calls this a "field of
20 dreams" strategy; I call it Colorado public policy.

21 **Q. DOES MR. McFADDEN ADDRESS IN HIS ANSWER TESTIMONY**
22 **WHETHER EXECUTED CONTRACTS SHOULD BE IN PLACE BEFORE**

1 **BUILDING A TRANSMISSION LINE TO SERVE GENERATION**
2 **RESOURCES?**

3 A. Mr. McFadden points out that at this time there are no power purchase
4 agreements. He concludes that without “commitments or assurances” that
5 generation capacity sufficient to justify the proposed transmission facilities will
6 be constructed and connected to the system, the proposed transmission
7 project cannot be considered used and useful.

8 **Q. DO YOU AGREE WITH MR. McFADDEN?**

9 A. No. Mr. McFadden is advocating the same catch-22 that has prevented
10 development of renewable resources in the past. Renewable energy
11 companies can not develop generation unless they know sufficient
12 transmission capacity is in place to deliver the generation or they contract
13 with a utility that is willing to pay for energy that could have been produced
14 but for the transmission constraints. Since it can only take two years to build
15 renewable energy generation but 5 to 7 years to build a high-voltage
16 transmission line, renewable energy projects have been hindered by the
17 timing mismatch. Mr. McFadden’s opinion, if adopted, would erect a
18 structural regulatory barrier preventing utilities from building transmission
19 lines in anticipation of future generation in energy resource zones. Such a
20 policy would continue to frustrate the development of renewable energy
21 facilities in Colorado, perpetuating this timing mismatch.

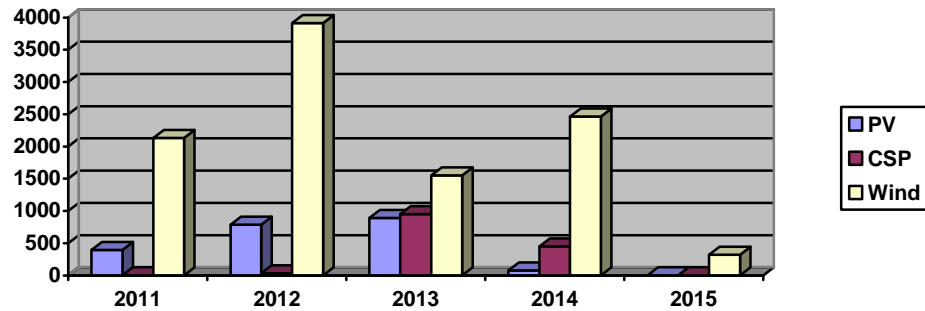
22 I also disagree with Mr. McFadden’s position that utilities can receive
23 no cost recovery unless his arbitrary five year deadline for full line utilization is

1 met. See Exhibit No. KTH-2, p.111, ll. 17-23. This is a rather harsh penalty,
2 as most transmission line upgrades or additions will not be fully subscribed
3 within such a short period of time. To my knowledge, the Commission has
4 never instituted such a condition in an electric transmission line CPCN case.
5 This problem exists not just in Colorado but in many states, and like
6 Colorado, commissions and legislatures are taking action to guide solutions to
7 the problem.

8 You can see the genesis of this problem as recently as the 2009 Public
9 Service solicitation for generation. The renewable resource bids we received
10 were clustered in the near term – 2011 through 2013. If we only started the
11 transmission planning and construction process after contracts for those
12 resources were completed (in mid 2010), we could only contract with bidders
13 who proposed projects that could be accommodated by existing transmission
14 capacity, because new large scale transmission lines could not be
15 constructed and placed into service until several years after the generation
16 would be placed into service. The following graph illustrates the way that
17 renewable generation bids typically cluster a few years into a bid process and
18 fall off dramatically in the later years. This is why states like Colorado, Texas,
19 and Minnesota encourage building the transmission in anticipation of
20 generation additions.

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Figure KTH-1 – Renewable Bids by in-service year



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In essence, the McFadden and Dauphinais recommendations would significantly hamper Colorado's desire to attract the development of additional renewable resources. They argue that transmission should be built only to serve short term needs, after contracts are negotiated for firm resources, and that the transmission capacity must be fully utilized within a relatively short period of time (two to five years). It takes approximately five years to plan, permit and construct and major transmission line, but only two to three year to plan, permit and construct renewable resources. According to these Trinchera witnesses, transmission should be sized to contracts (with only slight excess) and only after contracts are signed. So, according to their reasoning, all or most renewable developers in Colorado would need to first win and negotiate contracts with a utility, and then wait five or more years prior to putting their facilities into service. Clearly, these developers will and can go elsewhere, to other states where they could receive a more timely return on the projects that they could construct within a two year time frame. The Trinchera proposal would clearly hurt the ability of Colorado to meet its objectives of attracting more renewable energy development to our State.

1 **Q. MR. McFADDEN DISCUSSES TWO CASES IN WHICH THE COMMISSION**
2 **IMPOSED STAND-ALONE RATES ON A NATURAL GAS TRANSMISSION**
3 **LINE OR PLACED THE RISK OF A NUCLEAR PLANT ASSET ON**
4 **SHAREHOLDERS. HOW DO YOU RESPOND?**

5 A. I do not believe that either of these cases is relevant to the issues presented
6 by this docket. This is not a case involving either a gas transmission line or
7 nuclear generation. This is a case involving a transmission project that will be
8 constructed to an underserved energy resource zone, where studies have
9 shown there are significant solar resources to be tapped. This activity has
10 been specifically encouraged by the Colorado General Assembly as I have
11 already discussed.

12 Further, the Colorado General Assembly, in C.R.S. §40-5-101(4), has
13 specifically mandated favorable rate treatment for electric transmission
14 facilities “to provide additional encouragement to utilities to pursue the
15 construction and expansion of transmission facilities.” Colorado law requires
16 that utilities receive current recovery of the transmission investment through a
17 rate adjustment clause, including return on construction work in progress. Mr.
18 McFadden’s punitive proposal runs directly contrary to this legislative policy.

19 **Q. DOES A TRANSMISSION LINE OR FACILITY NEED TO REACH ITS FULL**
20 **CAPACITY BEFORE IT CAN BE CONSIDERED USED AND USEFUL?**

21 A. No. A transmission facility is considered used and useful when it is placed
22 into commercial operation. That is the time that the transmission facility can
23 be placed into a utility’s rate base. Prior to that time, the construction costs

1 incurred by the utility are considered to be construction work in progress and
2 often are not allowed to earn any return. However, as I discussed earlier, to
3 encourage the construction of transmission, the Colorado General Assembly
4 has mandated that utilities be allowed to earn a current return on even
5 transmission construction work in progress.

6 Because transmission is a long term infrastructure investment, it is
7 expected that it will be sized with “extra” capacity so that it can accommodate
8 not only current needs but also future needs. I am not aware of any electric
9 transmission decisions by this Commission that have stated that a utility could
10 recover only a portion of its transmission investment based upon then current
11 utilization of the facility’s total capacity. Any such ruling would clearly
12 discourage, and potentially prevent, a utility from constructing transmission.
13 That would be the exact opposite of what the General Assembly mandated
14 through C.R.S. §40-5-101(4).

15 **Q. WHAT IS YOUR VIEW OF THE POSSIBILITY OF STAND-ALONE RATES**
16 **IN THIS DOCKET?**

17 A. I do not believe the Commission would impose a stand-alone rate, in part
18 because, as Mr. McFadden admitted, that would mean the shareholders
19 would get to keep all the return on the investment. Exhibit No. KTH-2, p. 84,
20 l. 19 – p. 89, l. 15. Indeed, even Mr. McFadden is not recommending that the
21 Commission impose stand-alone rates. Exhibit No. KTH-2, p. 72, ll. 1-14.

22 The notion that stand-alone rates should be imposed whenever
23 generation resources are not under contract would make it very difficult to

1 develop renewable resources in Colorado, exactly what the Colorado
2 Legislature has been trying to remedy.

3 **Q. DO YOU HAVE ANY OTHER ISSUES WITH MR. McFADDEN'S "USED**
4 **AND USEFUL" ANALYSIS?**

5 A. Yes. The used and useful regulatory principle comes into play when a utility
6 is seeking to place an asset into rate base. Public Service is not seeking to
7 do so as part of this CPCN docket. Indeed, Mr. McFadden stated in his
8 deposition that the Commission does not determine if costs were prudently
9 incurred in a CPCN docket, and he is not aware of any costs being disallowed
10 in a CPCN proceeding. Exhibit No. KTH-2, p.50, ll. 8-14. He also admitted
11 "on the technical side" that the Commission's order in this docket would not
12 result in the establishment of rates for customers. Exhibit No. KTH-2, p.34, ll.
13 8-15.

14 **Q. DOES MR. McFADDEN HAVE A CONCERN WITH COST RECOVERY**
15 **UNDER THE TRANSMISSION COST ADJUSTMENT (TCA) MECHANISM?**

16 A. Yes. Mr. McFadden refers to the TCA in his Answer Testimony at page 14
17 and is concerned that utilities can begin recovery of transmission costs prior
18 to a rate case. This is the provision that I discussed earlier, the one passed by
19 the General Assembly to encourage construction of electric transmission
20 facilities. Mr. McFadden recommends that any CPCN granted for the
21 proposed project be conditioned on a subsequent public proceeding to
22 determine whether costs were prudently incurred. McFadden Answer
23 Testimony, p. 14.

1 **Q. DO YOU AGREE WITH MR. McFADDEN’S CONCERN?**

2 A. His proposed condition is unnecessary because it is already included in the
3 statutory language that governs the TCA. C.R.S. Section 40-5-101(4)
4 provides in its entirety:

5 (a) A public utility shall be entitled to recover, through a separate rate
6 adjustment clause, the costs that it **prudently incurs** in planning,
7 developing, and completing the construction or expansion of
8 transmission facilities for which the utility has been granted a certificate
9 of public convenience and necessity or for which the commission has
10 determined that no certificate of public convenience and necessity is
11 required. The transmission rate adjustment clause shall be subject to
12 annual changes, which shall be effective on January 1 of each year.

13 (b) To provide additional encouragement to utilities to pursue the
14 construction and expansion of transmission facilities, the commission
15 shall approve current recovery by the utility through the annual rate
16 adjustment clause of the utility's weighted average cost of capital,
17 including its most recently authorized rate of return on equity, on the
18 total balance of construction work in progress related to such
19 transmission facilities as of the end of the immediately preceding year.
20 The rate adjustment clause shall be reduced to the extent that the
21 **prudently incurred costs** being recovered through the adjustment
22 clause have been included in the public utility's base rates as a result
23 of the commission's final order in a rate case. (Emphasis mine).

24 As can be seen from the quote above, the statute already builds in protection
25 for customers that any planning, development and constructions costs placed
26 into the TCA must be prudently incurred.

27 **Q. DOES THIS STATUTE MEAN THAT THE ISSUE OF WHETHER TO**
28 **CONSTRUCT THIS FACILITY CAN BE CHALLENGED IN LATER RATE**
29 **PROCEEDING?**

30 A. No. This CPCN proceeding is the docket where the Commission must
31 determine whether it is appropriate (i.e. prudent) to construct this project,
32 based upon the Commission’s view of the present or future public

1 convenience and necessity and the other public policy objectives enunciated
2 by the Colorado General Assembly. If the Commission grants a CPCN for
3 this project, construction of project has been conclusively deemed prudent. In
4 a subsequent rate proceeding, the debate over prudently-incurred costs is
5 limited to whether the utility prudently managed the construction, operation
6 and maintenance of this approved facility (not whether the facility should have
7 been constructed in the first place).

8 **Q. DOES EITHER THE REGULATORY CONCEPT OF PRUDENCE OR USED**
9 **AND USEFUL SUGGEST THAT ONLY A PORTION OF THE**
10 **TRANSMISSION FACILITY INVESTMENT CAN BE RECOVERED IF THE**
11 **TRANSMISSION FACILITY IS NOT FULLY SUBSCRIBED AT THE TIME**
12 **OF THE RATE CASE?**

13 A. No. If the Commission were to adopt such a rule, no utility would ever
14 construct transmission. As I discussed earlier, the transmission facility is
15 considered used and useful when it is placed into commercial operation,
16 irrespective of the level of the capacity that is being used at the time of the
17 rate case. It is expected that transmission utilization will grow over time.
18 Likewise, the issue of the prudence of cost incurrence is not related to the
19 extent of subscription for the capacity of the line. To the extent that the
20 Commission has any concerns about the size of the line, or the potential
21 timing of the full use of its capacity, those concerns should determine whether
22 the facility is granted a CPCN. Once the CPCN is granted, the utility is
23 entitled to full and timely cost recovery for the full line.

1 So, if the Commission is convinced by the Trinchera testimony that
2 transmission should be built in small, fully contracted, increments, then the
3 Commission should not grant a CPCN for this line proposed by Public Service
4 and Tri-State. On the other hand, if the Commission interprets the policy
5 statements made the General Assembly as we do, namely, that utilities need
6 to construct transmission to energy resource zones to encourage the
7 development of additional beneficial resources, including renewable
8 resources, and that it is good transmission planning to consider the longer
9 term resource needs when planning and constructing transmission, then the
10 Commission should grant a CPCN for the project proposed by Public Service
11 and Tri-State.

12 I also note that the Trinchera proposals conflict with the Commission
13 approved Portfolio #5 in Docket No. 07A-447E, because the proposals do not
14 have sufficient transmission capacity.

15 **Q. MR. McFADDEN OPINES THAT OPERATION AND MAINTENANCE (O &**
16 **M) COSTS SHOULD HAVE BEEN INCLUDED IN THE TOTAL COST OF**
17 **THE PROJECT, AND THERE SHOULD NOT BE A PLUS OR MINUS 30**
18 **PERCENT COST VARIATION. HOW DO YOU RESPOND?**

19 A. I am not aware of any transmission line CPCN case in which the Commission
20 has required Public Service to include O & M costs in the total cost of the
21 project when the Commission was evaluating whether the present or future
22 public convenience and necessity required construction of the line. Of course
23 we can assume that the utilities owning this facility will incur operation and

1 maintenance expense when the line is placed into service. Providing the
2 anticipated O&M expense with a CPCN application is not required in the
3 Commission's rules or any statute. Mr. McFadden agreed that in order to
4 recover operation and maintenance costs, the Company would have to file a
5 rate case and seek recovery of those costs. Exhibit No. KTH-2, p. 87, I.23 –
6 p.88, I.5. Public Service is not seeking to recover any costs in this CPCN
7 proceeding, so Mr. McFadden's O & M discussion is not relevant.

8 As to the plus or minus 30% variation in the construction cost estimate,
9 every transmission line application Public Service has filed over the last
10 several years has had the same plus or minus variation. This variation is
11 necessary because of a number of cost uncertainties at this stage as detailed
12 in Public Service's direct testimonies. At this stage of project development,
13 the exact route for the line (and therefore its length) has not been determined,
14 the exact facility configuration has not been determined, and the poles have
15 not been engineered or ordered. Many cost issues will not be fully resolved
16 until the completion of this proceeding and the local land use proceedings.
17 Once the specific route is determined, the poles are designed, and the
18 materials are ordered, a more specific cost estimate will be determined.
19 However, the plus or minus 30% estimates have been sufficient in the past to
20 apprise the Commission of the relative order of magnitude of the cost of the
21 proposed project and have been sufficient for the Commission to determine
22 whether a CPCN should be granted.

1 **Q. PLEASE DISCUSS THE RESOURCE PLAN APPROVED BY THE**
2 **COMMISSION.**

3 A. Sure. Under Commission Rules, Public Service is required to file a resource
4 acquisition plan every four years. That plan is reviewed in two phases. The
5 first phase, Phase I, establishes the underlying assumptions associated with
6 the modeling parameters used to perform a dynamic modeling evaluation of
7 resource bids and the public policy issues associated with developing a plan.
8 The second phase, Phase II, involves the Commission reviewing the
9 Company's analysis of specific resource bids and evaluating the Company's
10 recommended portfolio of resources.

11 Both phases of Public Service's 2007 Resource Plan are nearly
12 complete. The Commission issued a Phase II Decision on November 6, 2009.
13 The Commission modified Public Service's selected resource portfolio by
14 adding an additional solar project (about 30 MW) over what was proposed by
15 the Company. The Commission and an independent evaluator determined
16 that the bidding process and the evaluation of the bids were fair, equitable,
17 and that the results were in the public interest. The approved portfolio has
18 the majority of solar resources sourced from new projects in the San Luis
19 Valley.

20 **Q HOW MANY MEGAWATTS OF RENEWABLE RESOURCES WILL**
21 **POTENTIALLY DEPEND ON THE SAN LUIS – CALUMET – COMANCHE**
22 **TRANSMISSION PROJECT?**

1 A The Commission preferred portfolio reflects approximately 370 MW of
2 renewable energy projects that would interconnect near or directly to this
3 project in the San Luis Valley and a total of between 525 Mw and 555 MW of
4 renewable capacity would use the San Luis – Calumet – Comanche
5 transmission line project. The capacity of these approved projects exceeds
6 the existing export capacity available without this new transmission facility.

7 **Q WHEN DOES THE COMPANY EXPECT TO EXECUTE CONTRACTS FOR**
8 **THE RESOURCES IN OR NEAR THE SAN LUIS VALLEY?**

9 A Now that the Commission has issued an order authorizing the Company to
10 acquire resources, the Company has initiated negotiations with the successful
11 bidders. It is my experience, based on years of negotiating purchased power
12 contracts, that it will take between six and twelve months to negotiate the
13 agreements.

14 **Q MR. DARIN WITH WESTERN RESOURCE ADVOCATES SUGGESTS**
15 **THAT THE COMMISSION SHOULD PLACE CONDITIONS REGARDING**
16 **THE USE OF THE NEW TRANSMISSION FACILITIES BASED ON**
17 **CONDITIONS PLACED ON NORTHERN STATES POWER IN**
18 **MINNESOTA. ARE YOU FAMILIAR WITH THOSE MINNESOTA**
19 **CONDITIONS?**

20 A. Yes. Over time I negotiated contracts associated with the conditions imposed
21 by the Minnesota Commission. I supervised the people who negotiated the
22 power purchase agreements and supervised the group that made the
23 transmission reservations. While we fully understand the public policy goal of

1 using transmission expansion to renewable rich areas for renewable energy,
2 there are many practical problems with implementation of conditions like
3 those suggested by Mr. Darin. Restrictions of this type can work against the
4 best interests of our customers.

5 First, FERC has established a queue process for transmission service
6 and interconnection service. Not only does a utility like Public Service have to
7 abide by both the FERC process and the state regulatory processes, but also
8 at some point we need to “marry” the two processes to result in a cost-
9 effective resource plan for customers. In MN, that marrying of the
10 interconnection queue (a position held by a developer) and the transmission
11 queue (a position held by the Company) meant that we had to tie specific
12 projects to the transmission requests. When renewable project developers
13 later asked to change terms and conditions of their power purchase
14 agreements in order to continue forward with project development, our
15 company was left in the uncomfortable position of having to agree to the
16 requested contract changes in order to avoid being in violation of conditions
17 of the original transmission CPCN grant. In other words, the restrictions in the
18 transmission CPCN grant imposed by the Minnesota Commission (when
19 combined with the queue restrictions imposed by FERC) provided leverage to
20 renewable developers to extract concessions from our utility – concessions
21 that may not have been in the best interests of our customers.

22 It is not good public policy to restrict the generation resource options
23 that are available to a utility as a CPCN condition for transmission. Resource

1 acquisition decisions should be based upon the best information available to
2 the utilities and the regulators at the time the acquisition decision is made. In
3 the Minnesota case, our customers would have been better served had our
4 utility retained the flexibility to negotiate replacement projects rather than
5 forcing us to deal with specific projects or lose our transmission CPCN. In
6 Colorado, Public Service's resource needs may vary over time.

7 **A. DO YOU AGREE WITH MR. DARIN'S CONDITION THAT ALL THE**
8 **RENEWABLE RESOURCES THE COMMISSION APPROVED AS PART OF**
9 **DOCKET NO. 07A-447E MUST BE COMMITTED TO PRIOR TO**
10 **INITIATING CONSTRUCTION?**

11 A. No. There should be no such condition put on this project for a number of
12 reasons. First, the Commission essentially approved a pool of bidders and a
13 series of primary and secondary bidders and therefore Public Service would
14 lose a substantial amount of its negotiating leverage if the bidders knew that
15 Public Service must sign the contracts before the transmission line can be
16 built. Loss of such negotiating leverage would harm our customers. Second,
17 as I explained previously, the Colorado Legislature has issued policy
18 directives to help alleviate the "chicken and egg" problem of resources being
19 developed faster than transmission by encouraging utilities to develop
20 transmission in advance of generation. This policy objective cannot be
21 served if the Commission places a condition on transmission construction that
22 requires executed contracts to be reached first. Third, the Commission has
23 approved a specific resources portfolio that sites approximately 370 MW of

1 renewable resources in or near the San Luis Valley. These projects need this
2 proposed transmission facility to allow the energy from these new resources
3 to be delivered to the Front Range and Denver Metro area. If we delay
4 construction start from the schedule submitted in this Docket, then the
5 transmission may not be in-service in the time needed by these selected
6 renewable bids.

7 **Q HOW DO THE RENEWABLE RESOURCES ANTICIPATED TO BE**
8 **DEVELOPED IN THE SAN LUIS VALLEY SUPPORT THE GOVERNOR'S**
9 **CLIMATE ACTION PLAN AND THE NEW ENERGY ECONOMY?**

10 A. The Governor's Climate Action Plan, announced November 5, 2007, set the
11 goal to reduce carbon dioxide emissions economy wide in Colorado by 20%
12 by 2020 and by 80% by 2050 in the Colorado. While the development of the
13 renewable resources referenced above will not get Public Service Company
14 to the 20% reduction target, these resources in the San Luis Valley are a key
15 component to reducing the Company's carbon dioxide emission by producing
16 electricity with zero emissions and continue the state public policy goal of
17 growing a vibrant solar energy industry in the state. Further, as I discussed
18 earlier, we expect to receive additional solar bids in future solicitations from
19 the San Luis Valley that will assist us in reaching this 20% carbon dioxide
20 reduction goal by 2020.

21 **Q WHAT WOULD BE THE IMPACT OF DELAYING THE START OF ANY**
22 **CONSTRUCTION UNTIL ALL OF THE CONTRACTS ARE EXECUTED?**

1 A That depends on how one defines the “start of construction.” However,
2 whether we define the start of construction as moving dirt or the start of
3 construction to mean spending any money and resources on the project, both
4 translate into delays of bringing critical solar and wind resources on to the
5 Company’s resource mix. Delays in the proposed resource commercial
6 operations will result in higher resource costs.

7 **Q. MR. DARIN CONDITIONS WRA’S SUPPORT FOR THE APPROVAL OF**
8 **THE SAN LUIS VALLEY – CALUMET – COMANCHE TRANSMISSION**
9 **PROJECT CPCN ON THE COMPANY REPORTING DSM (DEMAND**
10 **RESPONSE, CONSERVATION, AND ENERGY EFFICIENCY) AND ON**
11 **SITE SOLAR ACTIVITIES. HOW DO YOU RESPOND?**

12 A. Public Service has very robust programs for both its DSM activities in
13 Colorado as well as its activities in meeting the Renewable Energy
14 Standards. Mr. Darin’s condition of reporting on the Company’s DSM and
15 grid-connected on site renewable generation in relationship to the
16 transmission CPCN is duplicative of the existing reporting requirements that
17 the Company already performs in compliance with Commission requirements.
18 Additional filings are not necessary and the Company does not support such
19 a condition.

20 **Q. DOES THE COMPANY REPORT ENERGY EFFICIENCY OR DEMAND**
21 **RESPONSE EFFORTS BY GEOGRAPHIC AREA?**

22 A. No, Public Service does not report energy efficiency or demand response
23 efforts by geographic area, but rather by program.

1 Q. MR. DARIN GOES ON TO RECOMMEND THE COMMISSION APPLY A
2 REBUTTABLE PRESUMPTION AGAINST A FINDING OF NEED IN A
3 FUTURE CPCN CASE FOR A NON-RENEWABLE GENERATION
4 RESOURCE THAT WOULD USE CAPACITY FROM THE SAN LUIS
5 VALLEY – CALUMET – COMANCHE TRANSMISSION PROJECT. WHAT
6 IS THE COMPANY’S POSITION ON THIS RECOMMENDATION?

7 A. While the Company has no current plans to site non-renewable resources in
8 the SLV, I can envision situations in which the siting of a gas-fired generating
9 facility to supplement solar or wind generation may be a valuable integration
10 tool and might ensure higher utilization of the transmission system. I would
11 hate to preclude Commission consideration of such synergies now. The
12 Commission will have the opportunity to review any substantial generation
13 addition proposed by the Company, either through a CPCN, resource plan,
14 PPA approval, or RES docket, and therefore I believe that WRA and other
15 folks will have many avenues to provide their opinions on the appropriateness
16 of future resource additions.

17 V. PUBLIC COMMENTS

18 Q. HAVE YOU REVIEWED THE PUBLIC COMMENTS PRESENTED IN BOTH
19 WALSENBURG AND ALAMOSAS?

20 A. Yes. I am always struck by the way that people take the time and effort to
21 express their opinions, both for and against a project or plan and I am glad
22 that the Commission schedules time to allow interested parties that
23 opportunity. I am moved by their passion and eloquence.

1 I was not in attendance at the two public meetings in this case,
2 although I do have staff that attended and I read the transcripts. I also found
3 an opportunity to drive over La Veta pass in November to refresh my memory
4 of the beauty of the area.

5 The vast majority of comments were related to the original routing of
6 the proposed project from residents who lived near the proposed route. My
7 understanding is that Tri-State revised the proposed route to address
8 concerns that it had received from the original (more southern) routing, and I
9 am hopeful that this resolves the majority of concerns. While their pleas are
10 impassioned and personal, the purpose of a CPCN proceeding is not to
11 determine specific routing, but rather to determine if the transmission project
12 is a reasonable way to address the transmission needs to the Public Service
13 and Tri-State systems.

14 I found that a number of people supported improving the reliability of
15 electric service to the San Luis Valley and agreed that there were benefits
16 from allowing access to renewable energy.

17 Our Company takes the concerns of our customers and neighbors
18 seriously. However, it is difficult to meet all of these concerns. We operate in
19 the State of Colorado where our Governor, the legislature, and the Public
20 Utilities Commission have all expressed goals of increasing the production of
21 renewable energy and reducing carbon dioxide emissions. We also support
22 those goals. We further support the environmental and economic
23 development benefits of renewable generation, including the attraction to

1 Colorado of new manufacturing companies and the “green jobs” created by
2 this nascent industry.

3 One of the best places to generate solar energy in Colorado at the
4 lowest cost is in the San Luis Valley, but this Valley doesn’t have enough
5 electric load to use all of the energy that it can produce. I thought that Mr.
6 Michael Mitchell expressed a poignant thought -- the Valley is currently in a
7 position of exporting its agriculture because Valley residents cannot consume
8 all of the potatoes that are grown in the Valley. I think he alludes that the
9 same is true with solar energy. The San Luis Valley has great potential to be
10 an exporter of solar energy. But to accomplish this feat, new transmission
11 must be built. Public Service and Tri-State both have found that the best
12 transmission path out of the Valley is over the proposed corridors around La
13 Veta pass.

14 **Q. DOES THIS COMPLETE YOUR TESTIMONY?**

15 **A.** Yes.

Attachment A
Statement of Qualifications
Karen T. Hyde

I have a Bachelor of Science in Metallurgical Engineering from Lafayette College and a Master of Science in Mineral Economics from the Colorado School of Mines.

I began my career at Public Service in 1989. I have held various positions including, Research Analyst where I forecasted regional economics as well as customer and sales growth, Planning Engineer and Senior Planning Engineer in System Planning, and Business Development Analyst. I negotiated purchased power agreements for over fifteen years. In 2006, I was promoted to the Managing Director, Resource Planning and Acquisition. In 2007, I was made the Vice President, Resource Planning and Acquisition. In that role, I was responsible for ensuring that all of Xcel Energy's regulated operating companies acquired sufficient long term electric resources, transmission service, and gas transportation and storage contracts to meet the needs of their native load, retail, and full requirements wholesale customers and meet the planning reserve standards of state, regional and national reliability organizations. Resource Planning and Acquisition also has responsibility for management of wholesale customer accounts. In January 2009, I was made Vice President, Rates and Regulatory Affairs – Colorado where I am responsible for all matters before the Colorado Public Utilities Commission.

Prior to working for Public Service, I worked as a forecaster for Baltimore Gas and Electric and as a Lead Nuclear Engineer for the Department of Defense.

I have provided testimony expert and policy before the Colorado Public Utilities Commission, the Federal Energy Regulatory Commission, the Minnesota Public Utilities Commission, the Public Utilities Commission of Texas, and the New Mexico Public Regulatory Commission.