

BEFORE THE PUBLIC UTILITIES COMMISSION

STATE OF COLORADO

2009 MAY 11 PM 4:26

Docket No. 08I-227E

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**NOTICE OF FILING COMMENTS OF STAFF OF THE COLORADO PUBLIC UTILITIES COMMISSION**

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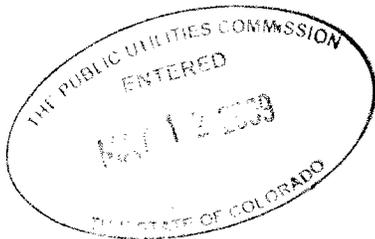
IN THE MATTER OF THE INVESTIGATION OF ELECTRIC TRANSMISSION ISSUES  
AND THE OPENING OF AN INVESTIGATORY DOCKET

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Staff of the Public Utilities Commission of the State of Colorado ("Staff"), by and through its counsel, the Colorado Attorney General, gives notice that, simultaneously with the filing of this notice, it has filed Staff's Comments in the above-captioned docket and that copies have been served as set forth in the attached certificate of service.

**Dated** this 11<sup>th</sup> day of May, 2009.



Respectfully submitted,

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CERTIFICATE OF SERVICE

This is to certify that I have duly served the within **NOTICE OF FILING COMMENTS OF STAFF OF THE COLORADO PUBLIC UTILITIES COMMISSION** upon all parties herein electronically, this 11<sup>th</sup> day of May, 2009, addressed as follows:

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**Questions for May 18, 2009 Workshop** 00512011 PM 4:25

Colorado utilities employ several procedures and requirements in their transmission planning efforts. These procedures and requirements are set forth in, among others, Rules 3102 and 3206 of the Rules Regulating Electric Utilities, 4 *Code of Colorado Regulations* (CCR) 723-3, Colorado Coordinated Planning Group/Colorado Long Range Transmission Planning Council (CCPG/CLRTPG), WestConnect, Senate Bill 07-100, and FERC 890.

The objective of transmission planning is to provide adequate and reliable transmission services to Colorado ratepayers. At the same time, transmission planning needs to consider how to provide sufficient transmission capacity to ensure that utilities comply with renewable energy standards. The Commission has scheduled several workshops to discuss the issues concerning availability of transmission capacity, coordination of transmission planning, streamlining of the CPCN application process, SB-100 processes, and meeting the requirements of Rules 3102 and 3206. The Hearing Commissioner invites interested parties to submit comments addressing the following questions to facilitate the discussions for the May 18, 2009 workshop. With respect to all the questions set forth below, please provide reasons or explanations when possible. This will result in a more efficient process at the May 18 workshop.

**Understanding Transmission Planning**

**Q1. Overview of Transmission Planning**

- a. Please describe when a utility, a transmission provider (TP) or an independent transmission company (ITC) determines that an enhancement or addition to existing transmission infrastructure or new transmission capacity is needed. Please describe what triggers the need for enhancement or addition to existing transmission infrastructure or new transmission capacity.
- b. Please describe what is involved in transmission planning for your company. Please include a conceptual project management description.
- c. Rule 3201 (b) through (c) requires that certain information, descriptions and studies be filed with applications for CPCNs. Please describe your company's process in compiling the following required information:
  - Estimated cost of the proposed facilities to be constructed.
  - Information on alternatives studied, costs for those alternatives and criteria used to rank or eliminate alternatives.
  - Prudent avoidance measures considered and justification for the measures selected to be implemented.
- d. Please provide a sample time line for transmission projects including: internal planning, external planning and coordination with stakeholders, application for CPCN, permits, construction, etc.

**A1.** *Staff response not provided.*

**Q2. Planning Requirements in Addition to Those Set Forth in Rules 3102, 3206 and 3607(C)(1)**

**a.** What limitations or challenges may be involved in transmission planning horizons of 10 years?

*Answer: Utilities prepare a 10-year case to fulfill a WECC/NERC requirement for council work. It is unclear as to how much commitment there is to a 10 year planning case. For example, CPCN's submitted for transmission lines show power flows for the in-service dates of the proposed projects. Power flows are not provided that show how the project works and fits into the 10 year case. It appears that the real focus is on a 5-yeartime frame for the internal 5-year budget process that emphasizes the next three years.*

*It is staff's observation that planning departments are being run by operations focused managers who by practice have a short time perspective to the operation of the electrical system. By being operations focused and with the pressures of a three year budget, a future 5-10 year time frame may seem like an adequate long term time frame.*

*The utilities have difficulty focusing on a 10 year case as discussed above. A 10 year time frame is risky enough for the utilities as stated below:*

- 1. They do not know the size and locations of the future generation plants, therefore they do not know from where and to what capacity to build the transmission lines.*
- 2. They do not know where the load growth is occurring, therefore they do not know from where and to what capacity to build the load serving transmission lines.*
- 3. Building transmission lines with conditions 1 and 2 above will result in wasted money.*

**b.** What limitations or challenges may be involved in transmission planning horizons of longer than 10 years?

*Answer: The answer is the same as for a above but only greatly amplified. Therefore, a major change in attitude is required to begin to consider a time frame beyond 10 years.*

**c.** Under what circumstances should transmission plans that utilities file with the Commission include both a detailed, short term (less than 10 years) plan and a concept/scenario long term (greater than 10 years) plan?

*Answer: A long term plan would be required for load serving lines to make sure the short term 10 year plan adequately addresses the long term capacity needs (be single or double circuit 230kV lines) that would also solve the corona noise and EMF issues in residential areas. A short term plan should include the in-service date of the project and how it fits into the 10 year plan.*

*A long term plan should be done first to determine the required transmission lines delivering power from generation sites to the load serving network. This will provide the necessary guidance as to how to build the short term lines (voltage, single or double circuit, ROW width). As transmission corridors into the load serving networks become more difficult to obtain, it becomes necessary to maximize the use of the corridor by building the highest capacity lines as practical. EMF and corona noise will become*

*issues and high capacity double circuit lines create win-win-win situations for capacity- EMF- corona noise.*

d. Should proposals for new transmission lines consider the potential for future upgrades or expansions? Please consider in your response future upgrades or expansions such as larger conductor size, double circuits, advanced materials, and additional rights of way.

*Answer: Yes. When the need for a new line arises, it creates an opportunity to take the right first step (build for 230kV, operate at 115kV initially; build for 500kV, operate at 345kV initially, etc.), especially where residential areas are being crossed where EMF and corona noise become issues. By focusing on maximizing the capacity on that new line, a double circuit line makes sense. EMF and corona noise then become non-issues.*

e. Should a utility be required to conduct a combined transmission and generation production cost simulation study to evaluate costs and reliability of power systems with substantial renewable resources?

*Answer: A generation production cost study is not necessary. The generation magnitudes are important and the generation and transmission lines should be planned together.*

### **Q3. Coordination of Transmission and Electric Resource Planning**

Contained within the Commission's rules on electric resource planning and the evaluation of existing resources is Rule 3607(c)(1) concerning existing transmission capabilities and future needs. This rule states that

The utility shall report its existing transmission capabilities, and future needs during the planning period, for facilities of 115 kilovolts and above, including associated substations and terminal facilities. The utility shall generally identify the location and extent of transfer capability limitations on its transmission network that may affect the future siting of resources. With respect to future needs, the utility shall explain the need for facilities based upon future load projections (including reserves). To the extent reasonably available, the utility shall include a description of the length and location of any additional facilities needed, their estimated costs, terminal points, voltage and megawatt rating, alternatives considered or under consideration, and other relevant information.

*Note: Notice that the underlined phrases (by me) make reference to future needs during the planning period. Apparently this period has not been defined, or it has been ignored.*

a. Should the utilities be required to consider alternatives or provide relevant information for transmission lines under consideration when filing electric resource plans? *Answer: relevant information.* If so, should this transmission planning information be included with interim electric resource plans as well as the required plans every four years? *Answer: every four years and interim as necessary.* How is this information helpful in the generation planning process? *Answer: Access to cheapest resources more likely.*

- b. Should the utilities be required to conduct transmission planning studies in conjunction with proposed electric resource plans? *Yes. See attached pages from a copy of "Public Service PLANNED BULK POWER TRANSMISSION SYSTEM ADDITIONS 1990-2009" which was referred to internally as the "Red Book in PSCo's planning department."*
- c. Should the utilities be required to consider time periods longer than resource acquisition periods in assessing future transmission needs? *Yes*
- d. Should the utilities be required to consider all transmission interconnection requests in future transmission planning? If not, what interconnection requests should be considered? *This should apply to the ERP RFP process.*
- e. Should transmission planning be a part of the electric resource planning process, in whole or in part? *In whole – how does it fit into the long term.*

#### **Q4. Coordination of CCPG/CLRTPG, SB-100 and Integrated Planning**

The Commission is interested in your perspective with respect to transmission planning that currently takes place outside the PUC as well as within the PUC and how these processes can be coordinated. The Commission also is interested in your perspective with respect to an integrated transmission planning forum involving all stakeholders. If such an approach were taken, the Commission would be interested in you perspective regarding the role of the Commission Staff as well as the role of the Commission and its advisors.

- a. How should the CCPG/CLRTPG, SB-100 and other processes and reports be integrated into or coordinated with the filing of CPCN applications? *Answer: Certainly the CPCN projects should be supported by the studies.*
- b. How should the CCPG/CLRTPG, SB-100 and other processes and reports be integrated into or coordinated with a Commission transmission planning process? *Answer: A Commission planning process has not been defined. They should agree.*
- c. Should there be an integrated transmission planning process? *Yes.*
- d. Should the Commission order an integrated transmission planning forum including all stakeholders and various interested parties? *Yes.*
- e. What should be the role of Commission Staff in coordinating transmission planning? *Express ideas.*
- f. What should be the role of the Commission and its advisors in coordinating transmission planning? *Recommend to the Commissioners a way to proceed on what is brought before them in the docket.*

#### **Q5. Regional Planning Activities**

- a. What should be the role of the Commission Staff when participating in transmission planning activities sponsored by policy groups such as the Western Governors Association's (WGA) Western Integrated Electric Board (WIEB)? *Express ideas.*

- b. What should be the role of the Commission Staff when participating in transmission planning activities sponsored by planning groups such as the Western Electricity Coordinating Council (WECC), WestConnect, or High Plains Express? *Express ideas.*
- c. What should be the role of the Commission and its advisors when participating in transmission planning activities sponsored by policy groups such as the Western Governors Association's (WGA) Western Integrated Electric Board (WIEB)? *Express ideas.*
- d. What should be the role of the Commission and its advisors when participating in transmission planning activities sponsored by planning groups such as the Western Electricity Coordinating Council (WECC), WestConnect, or High Plains Express? *Express ideas.*
- e. Considering the existence of current Regional Transmission Organizations (RTOs), what are the benefits, drawbacks, and challenges in the formation of an RTO for the Colorado utilities? *The benefits are debatable.*

**Q6. Communications with the Commission**

- a. From your perspective, do CCPG/WestConnect meetings and reports provide sufficient and timely information related to transmission planning? *Answer: Yes.* If not, why not? Do these meetings and reports provide duplicative information? *Answer: It is all useful.* If so, how?
- b. Should utilities jointly file integrated transmission planning reports including future transmission needs? *Jointly, only if available.* If not, why not? If so, should these reports be filed on an annual, biannual, quarterly or other time basis? *Answer: Every two years – with SB 07-100 with regional projects updates.*
- c. Should the Commission schedule meetings or workshops to gather updates from stakeholders regarding their transmission planning efforts? *Answer: Yes.* If not, why not? If so, should these meetings be held on an annual, biannual, quarterly or other time basis? *Answer: Annually.*