

29 January, 2012

Office of Electricity Delivery and Energy Reliability, OE-20
U.S. Department of Energy
1000 Independence Avenue SW
Washington, DC 20585

Greetings:

The Wyoming Infrastructure Authority (WIA) hereby submits its initial comments on the 2012 National Electric Transmission Congestion Study (the 2012 Study). The WIA is an instrumentality of the State of Wyoming, created in 2004 by the Wyoming State Legislature and is tasked with "diversifying and expanding the Wyoming economy through improvements in the state's electric transmission infrastructure and to facilitate the consumption of Wyoming energy by planning, financing, constructing, developing, acquiring, maintaining and operating electric transmission facilities, advanced coal technology facilities, advanced energy technology facilities and related supporting infrastructure"¹. Also, the WIA has \$1 billion in bonding authority to finance transmission infrastructure and generation collector lines.

Under Section 1221 of the Energy Policy Act of 2005, the Department of Energy (DOE) has undertaken three electric transmission congestion studies. Our comments pertain to the 2009 Study and our ideas on how to make the 2012 Study a more useful tool for transmission planners, policy makers and others. One of the great strengths of the 2009 Study was its reliance on data developed by a variety of non-DOE/FERC entities. For example, in the Western Interconnection, the 2009 study made substantial use of the work of the Western Electricity Coordinating Council (WECC). The 2012 Study should again rely on WECC's work (e.g., WECC's 10-Year Regional Transmission Plan released in September, 2011²). The ongoing work of WECC's Transmission Expansion Planning Policy Committee (TEPPC) is another valuable source of insights. The DOE is familiar with TEPPC, having made good use of its work in the 2009 Study.

Transmission planning is also being conducted in the Western Interconnection on an open, transparent and broadly participatory basis by subregional planning groups (SPGs). DOE should take advantage of the high quality work being produced by these SPGs. For example, one such entity, the Northern Tier Transmission Group, recently issued the final version of its biennial transmission plan with informative appendices illustrating the depth of their analysis.³ It deals with physical and economic congestion and provides detailed information on projects designed to alleviate congestion and make the grid more robust and versatile.

¹ Wyo. Stat. § 37-5-303

² See it at http://www.wecc.biz/library/StudyReport/Documents/Plan_Summary.pdf

³ See them at http://nttg.biz/site/index.php?option=com_docman&task=cat_view&gid=349&Itemid=31

The chief weakness of earlier congestion studies is that they have only addressed congestion. Most of the congestion in the Western Interconnection is well documented and solutions are being studied by WECC and the SPGs. Projects are moving forward to address a number of these congestion problems. To make the 2012 Study a more useful tool for state, regional and national policy makers, transmission developers and customers, it should include these issues:

- New technology to make the grid more efficient and increase its transfer capacity (with or without the construction of new transmission).
- Meeting NERC reliability standards.
- A Western Interconnection Energy Imbalance Market (EIM) -- an operational enhancement to allow better integration of renewable resources, and make dynamic scheduling of resources easier, more cost effective and more efficient. It is now being studied by a consortium of state utility commissioners with the assistance of the National Renewable Energy Laboratory through funding provided by the DOE.
- The potential effects on grid topology of the Environmental Protection Agency's proposed rules and regulations (including the retirement or replacement of generation resources and the location of new generation facilities (and hence transmission lines).
- Cost allocation relative to new infrastructure to address congestion and improve system reliability (here again, WECC and SPGs such as NTTG have useable information).
- A hard and unbiased look at the cost of power to rate payers and the importance of supporting resource development in regions with the highest quality wind and solar resources, taking into account reliability and delivered power prices.
- Related to new renewable electricity resources, the 2012 Study should include the impact of renewables on the natural gas industry and the firming of intermittent resources at the source (i.e., delivering a firm and generally environmentally acceptable product to larger markets at lower cost).

National, regional and state policy goals sometimes conflict; and, for some, the final forms may not be fully developed. Some are simply unknowable at present. Because of this, we do not recommend the 2012 Study focus primarily on such policy issues. Consistent with the concept of making the 2012 Study a useful tool, it should be an informational resource for policy makers and others, perhaps of use to all in sharpening the discussion of how transmission cost, reliability and related hurdles can be overcome and how policies could be developed to support a better transmission grid. It should be a heavy dose of reality, founded on the idea that we all owe the residential, commercial, and industrial (and governmental) ratepayers most reliable and most cost-effective transmission system possible. The 2012 Study should help bring together interests which should have a natural commonality of purpose but may have lost focus on this goal.

In addition to the recommendations above, several other topics should be addressed in the 2012 Study including:

- Cost-effective new technology, including the TAAG⁴ Report being prepared by NREL and expected to be issued within the next three months.
- Issues confronting the baseload thermal generation fleet in the Western Interconnection, including retirement, replacement, conversion, and retrofitting of existing generation facilities driven by environmental regulations, including actions by the EPA.
- An assessment of the costs of cycling baseload generation to address the variability of wind and solar energy, and the effect on costs of providing the lowest cost resources to the consumer.
- The foundational projects and other projects accepted for study by WECC and the Western Interconnection SPGs.
- The recommendations and initiatives of the Western Governors Association.
- The transmission projects already identified by the Federal Rapid Response Transmission Team, and ways to help the Team work more efficiently with state and regional stakeholders.
- Utility transmission planning efforts, including Integrated Resource Plans, whether or not they are formally “acknowledged” by regulators.
- The use of intra-hour scheduling for more efficient use of the system.
- Use of five-minute interval production cost modeling for better analysis of intra-hour variability; and gaining a better understanding of the practicality of Dynamic Transfer Capacity in more efficient system operation as advocated by Rich Bayless (NTTG’s representative on TEPPC).
- The more efficient and cost effective integration of intermittent resources (e.g., wind) into the grid. EIM and various technological initiatives suggested by Mr. Bayless should be included in this assessment.
- Assume that all Renewable Portfolio Standards (RPS) will be met by all states having such by the deadline specified
- Areas long identified as areas of constraint by WECC and the SPGs (e.g. in Wyoming: Bridger West, TOT 3) should be considered in terms of reliability, cost effectiveness for ratepayers, and the transmission planned to alleviate these constraints.

The WIA is in-support of comments by Governor Mead which were submitted to Secretary Chu in a letter dated September 9, 2011 (Subject: Comments regarding the proposed delegation to

⁴ Technology Assessment and Application Guide

FERC of DOE responsibilities under Section 1221 of the Energy Policy Act of 2005)⁵. I recommend that DOE consider these comments in their entirety, while giving specific attention and respect to the potential actions taken as a result of the 2012 Congestion Study.

As part of the work with the RRTT, Wyoming is currently involved in efforts relative to the NEPA process which should result in a more-timely granting of an Environmental Impact Statement and thus a more rapid resolution to mitigating areas off congestion while supplying electric power to the consumer in a reliable and cost-effective manner.

Your consideration of the foregoing comments will be much appreciated and we will be pleased to further discuss recommendations contained herein.

Sincerely,

A handwritten signature in blue ink, appearing to read "LD.", enclosed in a light gray rectangular box.

LOYD G. DRAIN, Executive Director
For the Wyoming Infrastructure Authority

⁵ <http://congestion09.anl.gov/delegation/index.cfm>