



Public Service Commission of Wisconsin

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January 23, 2012

Ms. Patricia A. Hoffman, Assistant Secretary
Office of Electricity Delivery and Energy Reliability
U.S. Department of Energy
1000 Independence Avenue, S.W.
Washington, D.C. 20585

Re: 2012 National Electric Transmission Congestion Study

Dear Assistant Secretary Hoffman:

On behalf of Governor Walker, the Public Service Commission of Wisconsin (PSCW) is responding to the U.S. Department of Energy (DOE) letter, dated November 10, 2011, to Governor Walker regarding the DOE's *2012 National Electric Transmission Congestion Study* (2012 Congestion Study). In the letter, the DOE requested information and recommendations from Wisconsin for the 2012 study on the status of congestion on the nation's electric transmission networks. Considering the Commission's expertise in transmission planning, the PSCW is able to properly address and provide the necessary input on the subjects outlined in the DOE's communications.

The PSCW believes that the sources of data, analyses and information listed in DOE's "Plan for Conduct" of the 2012 Congestion Study are appropriate. In particular, it would be appropriate for DOE to utilize the data sets that have been assembled by the Midwest Independent Transmission System Operator, Inc. (MISO), for use in the various planning studies that it has conducted as part of the on-going MISO Transmission Expansion Plan (MTEP) planning process and the associated Top Congested Flowgates studies. Numerous MISO stakeholders have been involved in these planning efforts and the underlying data and planning assumptions have been evaluated and are transparent.

The PSCW also believes that it would be appropriate for DOE to consider the information and planning models that are being constructed for the Eastern Interconnection States Planning Council (EISPC) and the Eastern Interconnection Planning Collaborative (EIPC). Although this information and the associated modeling may not yet be in a form that will be useful for conducting the 2012 Congestion Study, these planning efforts may provide useful guidance and direction for the DOE.

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The PSCW urges the DOE to recognize that congestion relief is only one objective of a comprehensive transmission planning process and that relieving congestion should not be viewed in isolation from other primary attributes of transmission system expansion such as reliability and accommodating public policy initiatives, relating to the development of renewable generation. MISO's appropriate consideration of a variety of eligibility criteria for its regionally cost-shared Multi Value Projects (MVP) shows that an expansive benefits approach to transmission planning results in a maximization of net benefits for ratepayers.

Finally, in your letter, the DOE requested input from Wisconsin on four highlighted items. The following discussion addresses each subject in detail.

1. *Pertinent studies that you think DOE should review as part of its evaluation of transmission congestion in your State or region.*

The relevant studies that DOE should regard, as outlined above, are the transmission expansion plans constructed, put together with strong stakeholder input, and approved by MISO as part of its FERC Order 890 requirements. MISO's latest annual planning process report, titled "MTEP11," was recently approved by the MISO Board. It contains a unique new set of transmission projects that the MVPs deemed to meet state policy, reliability and commercial market needs. In MTEP11, MISO adequately and sufficiently demonstrated the type of first starter projects and necessary backbone for the delivery of renewable resources to meet state policy requirements, and in a fashion that enhances grid reliability and minimizes congestion in a cost-effective manner to all MISO resource planning zones. The DOE should pay particular attention to MISO's MTEP11 process and plan.

In addition, the states and the regional transmission organizations (RTOs), as explained above, are participating in two DOE-funded venues, named EIPC and EISPC, that over the next 18 months will develop an appropriate transmission infrastructure build-out and companion sensitivities. This significant body of work should inform the DOE of up-to-date, forward looking network models as it conducts the 2012 Congestion Study mandated by Congress.

2. *Actions Wisconsin agencies have taken since the publication of the 2009 study that you think DOE should be aware of as it prepares the 2012 study.*

Wisconsin has undertaken numerous transmission project actions since 2009 to enhance the transmission grid in the Wisconsin area with upgrades and new constructions. Appendix 1, which is enclosed, details the nine transmission projects the PSCW has authorized since 2009.

Appendix 2, also enclosed, contains a reporting of transmission lines that transmission providers are in progress or expected to file applications for at the PSCW, and be in operation for the period ending 2018. This list is preliminary and comes from a report entitled the "Strategic Energy Assessment" that lists expected construction and is published every two years by the PSCW.

3. *Metrics Wisconsin agencies or others have used in gauging the existence or significance of transmission congestion in your State or region.*

All of Wisconsin's utilities are within the MISO reliability footprint and members of the MISO wholesale energy and reserves markets. Currently, MISO is made up of 12 states and the Canadian Province of Manitoba, and 90-plus percent of the load in the MISO footprint is subject to retail rate jurisdiction. Less than 10 percent is located in areas allowing retail access. Upon the integration of the Entergy system into MISO, the portion of load that is retail regulated will rise even further. For this reason, Wisconsin concurs with findings of the Independent Market Monitor for MISO, Dr. David Patton of Potomac Economics, that the appropriate metric to use when evaluating congestion is adjusted production cost savings, using computer modeling tools such as PROMOD. Differentials in locational marginal prices, or LMPs, are not appropriate for our area, but may be more suitable for RTOs with substantial retail access. The largest transmission company in Wisconsin, subject to construction authorization and permitting, is American Transmission Company (ATC). In designing and analyzing the transmission grid affecting the ATC footprint, ATC appropriately has been using adjusted production cost savings when examining the value associated with market congestion relief.

4. *Obstacles to the removal or mitigation of significant transmission congestion.*

The PSCW is unable to speak with regard to siting processes in other states, but would like the DOE to note that Wisconsin has an expedited siting process for the construction of new extra high voltage transmission lines. Presently, the Commission is given 180 days to act or the project is presumptively approved. The PSCW can go to state court to ask for a 180-day extension for very large projects. For practical purposes, from the time an applicant files a complete construction authorization request, the Wisconsin Commission must process the request in less than a year. It should also be mentioned that in its evaluation during the period of less than one year, the Wisconsin Commission processes an extremely thorough and complete review of associated environment impacts as required by the federal National Environmental Policy Act and the state's Wisconsin Environmental Policy Act. This Wisconsin process is actually faster than some of the approval processes that applicants face from federal agencies.

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The PSCW appreciates the opportunity to provide DOE its input on the very important issue of our nation's electricity infrastructure. Again, on behalf of Governor Walker, thank you for your consideration as we move our country and state forward.

Sincerely,

A handwritten signature in black ink, reading "Phil Montgomery". The signature is fluid and cursive, with a long horizontal stroke extending from the end of the name.

Phil Montgomery
Chairperson

PM:sp:

cc: Scott Walker, Governor, State of Wisconsin
Mike Huebsch, Secretary, Wisconsin Department of Administration

Enclosures:

Appendix 1--Wisconsin Transmission Line Construction Authorization Log
Appendix 2--New Wisconsin Transmission Lines

Appendix 1: Wisconsin Transmission Line Construction Authorization Log

Docket	Utility	Description	Filed	Authorized	Auth. \$	Miles	kV	ROW
137-CE-154	ATC	Rebuild Arpin – Rocky Run structures	9/29/2008	3/16/2009	\$24,338,00	20	345	Existing
137-CE-155	ATC	Rebuild Brodhead to S. Monroe from 69 to 138 kV	9/29/2008	4/9/2009	\$12,413,900	18	138	Existing
4220-CE-168	NSP	Eau Claire – Chippewa Falls Upgrade	6/23/2008	4/2/2009	\$33,898,000	13	161	Existing
137-CE-147	ATC	Rockdale – West Middleton	10/12/2007	6/26/2009	\$219,029,826	32	345	New
137-CE-127	ATC	Clear Lake - Woodmin	4/6/2010	10/26/2010	\$21,331,000	6	138	New
4280-CE-106	NWWE	Centuria Project Transmission & sub	9/9/2009	2/19/2010	\$1,174,200	4	69	New
137-CE-140	ATC	Canal – Dunn Road	11/17/2009	6/10/2010	\$24,738,300	8	138	New
4220-CE-172	NSP	Somerset – Stanton	1/29/2010	10/19/2010	\$15,129,000	8	69	New
4220-CE-175	NSP	Stinson – Bay Front Rebuild	3/28/2011	12/1/2011	\$22,196,000	32	115	Existing

Appendix 2: New Wisconsin Transmission Lines¹ (on which construction is expected to start before December 31, 2018)

PSC Status & Docket #	New Line or Rebuild/Upgrade ²	Endpoints (Substations)	County	Voltage (kV)	Est. Cost (Millions)	Expected Building Date	Expected In-Service	Substation Changes
American Transmission Company LLC (ATC)								
Application 137-CE-158	Replace existing 18 mile 69 kV line with 161 kV	Monroe Co. - Council Creek	Monroe	161	31.2	Jun-12	Jun-13	New switching station
Pre-application 137-CE-159	New 3.0 mile 138 kV line	96th Street - Milwaukee County	Milwaukee	138	26.6	Jul-14	Apr-15	New Substation
Pre-application 137-CE-160	New 118 mile 345 kV line	Cardinal - La Crosse area	Columbia, Dane, Jackson, Juneau, La Crosse, Monroe, Sauk, Trempealeau, Vernon ⁴	345	405.0	Mar-16	Sep-18	
Application 137-CE-161	New 5.0 mile 345 kV line	Pleasant Prairie - Zion, IL	Kenosha	345	28.5	May-13	Mar-14	New termination at Zion
Pre-application 137-CE-162	New 50 mile 345 kV line	Barnhart - Branch River	Manitowoc, Sheboygan	345	162.6	Feb-16	Oct-18	Two new substations & 345/118 kV transformer at Barnhart
Pre-Application 137-CE-162	New 16 mile 138 kV line	Barnhart - Erdmann	Sheboygan	138	0	Feb-16	Oct-18	New termination at Erdmann. Cost included in Barnhart - Branch River
Dairyland Power Cooperative (DPC), Northern States Power Company-Wisconsin (NSPW), and Wisconsin Public Power Incorporated (WPPI)								
Pre-application	New 20.8 mile 161 kV line	Genoa - La Crosse	La Crosse, Vernon	161	16.1	May-12	Jun-13	No
Pre-application	New 49.4 mile 161 kV line	Alma - La Crosse to Marshland	Buffalo, La Crosse, Trempealeau	161	43.8	Jan-17	Jan-19	No
Pre-application	New 0.5 mile 161 kV line	Lufkin - DPC 161 line	Eau Claire	161	0.5	Dec-12	Jan-13	New 138 kV sub at Lufkin

PSC Status & Docket #	New Line or Rebuild/Upgrade ²	Endpoints (Substations)	County	Voltage (kV)	Est. Cost (Millions)	Expected Building Date	Expected In-Service	Substation Changes
Northern States Power Company-Wisconsin (NSPW)								
Application 4420-CE-176	New 17.5 mile 161 kV line	Stone Lake - Couderay	Sawyer	161	26.5	Jun-14	Dec-15	New Couderay 161/69 kV substation
Application 4420-CE-174	5 miles 69 kV rebuild	Lufkin Substation	Eau Claire	69	11.6	Nov-11	Dec-12	New 161/69 kV substation
Application 4420-CE-175	Rebuild 32-mile 115 kV line	Stinson - Bay Front	Bayfield	115	20.0	May-12	Jun-13	Yes
Application 05-CE-136	New 120 mile 345 kV line	Hampton Corner, MN - North La Crosse	Buffalo, La Crosse, Trempealeau	345	360	Jun-13	Dec-15	Possible new transformer
Application 4420-CE-172	New 8.4 mile 69 kV line	Stanton - Somerset	St. Croix	69	15	Nov-10	Dec-12	Two new substations
Pre-application 4420-CE-173	New 27 miles of 161 kV line	Osprey - Park Falls	Price, Sawyer	161	18.3	Oct-12	Jun-13	No
Pre-application 4420-CE-177	New 42 miles of 69 kV line	Cedar Falls - Clear Lake	Barron, Dunn, Polk	69	13	Dec-12	Jan-14	No
Pre-application 4420-CE-178	New 35 miles of 161 kV line	Radisson - Osprey	Rusk, Sawyer	161	40	Dec-12	Dec-14	New substation & expansion of existing substation
No application # assigned yet	New 70 miles of 115 kV line	Iron River - Bay Front	Ashland, Bayfield	115	60.4	2013	Jan-17	Yes

1 – Does not include lines approved by the Commission.

2 – Rebuilds and upgrades, as well as new lines, may require new right-of-way.

3 – Estimate of extent of new and expanded right-of-way (not certain). Does not include upgrades or rebuilds requiring no new right-of-way.

4 – Not all counties will be impacted depending on final route.