

**UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION**

**Integrating Renewable Resources
Into the Wholesale Electric Grid**

**AD09-4-000
March 2, 2009**

**Remarks of
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Mr. Chairman and Commissioners:

Good morning, I appreciate the opportunity to speak with you today about Exelon's views on important policies for electric transmission in the coming "green" world.

There is a great dialogue ongoing in our Nation about both energy and environmental policy. The dialogue includes a discussion of the need to enhance our Nation's energy security by reducing our dependence upon imported oil supplies and a discussion of the need to address climate change by reducing greenhouse gas (GHG) emissions. President Obama, elected officials at all levels of government, corporate citizens, and numerous other stakeholders are increasingly advocating the expansion of our Nation's electric grid in order to accommodate new "green" generating resources, particularly generation fueled by renewables and other clean fuels. Exelon applauds these initiatives and outlines here some positive steps to resolve public policy issues implicated by expanding the transmission grid.

First we support passage of Federal transmission siting legislation giving this Commission plenary authority to site all new high voltage transmission, which we would define to mean transmission lines 345kV and above, and any feeder lines 100 kV and above that connect new non- or low-emitting generation resources ("New High Voltage Transmission"). The authority should be based upon the Natural Gas Act model for interstate natural gas pipelines. We would urge the Members of this Commission to formally voice their support for Federal transmission siting legislation, too.

Even though this Commission does not yet have plenary siting authority, we urge you to take steps now to enhance the prospects for siting new transmission.

That leads to our second recommendation. The Commission should immediately require interconnection-wide transmission planning using economic planning criteria. In this era of limited capital resources it is imperative that we build an efficient, integrated transmission grid. Planning should not stop at one RTO's or utility's border; we need to look at an integrated, efficient whole.

Third, the Commission should require interconnection-wide cost allocation for major grid upgrades. Enhancing the Nation's transmission infrastructure is a national priority and the costs should be borne by all load in the interconnection.

Fourth, the Commission should require a competitive process to build the most cost-effective transmission system – utilities and merchant investors should have equal opportunity to finance and build grid enhancements.

I'll expand on each of these points.

Federal Siting Authority for New High Voltage Interstate Transmission Lines

Exelon supports giving the Commission primary authority to site all New High Voltage Transmission in the same manner FERC has for interstate natural gas pipelines under the Natural Gas Act. The most effective way to expedite approval of New High Voltage Transmission is to give FERC authority to site and provide the right of condemnation to those receiving FERC approval. When the Federal Power Act was enacted in the 1930's, transmission was used principally to move power from generators to consumers within a single state. The electric grid is used differently today for long distance transmission from generation to load centers regardless of utility or state boundaries. The integrated nature of the transmission system is likely to increase as technology enhances efficiency. Limiting siting authority to the states is anachronistic. Of course there are local interests involved in siting transmission, just as in siting other public works. FERC has experience with natural gas pipelines and hydroelectric facilities in listening to and resolving local concerns. It is important to note that state and local officials are consulted and extensively involved in the FERC process for gas pipelines and hydroelectric facilities. That model should be replicated for New High Voltage Transmission lines.

The legislation should also require interconnection-wide planning using economic planning criteria and interconnection-wide cost allocation for New High Voltage Transmission. These concepts are discussed further below.

Some have suggested that FERC's siting authority should be limited solely to interconnecting "green" generation to the grid; we disagree. Exelon does not support a bifurcated transmission siting process – one for renewables or clean generation and one for everything else. The transmission grid needs to be

planned and operated as an integrated network. There should not be separate transmission lines, permitting, or planning for “renewable-only” transmission.

A central tenet of the Federal Power Act, and FERC’s open access regime, is that access to transmission should be nondiscriminatory. There can be no express lane solely for “green” power on the open access interstate transmission highway. Furthermore, on our integrated transmission grid, the notion of a “green network” transmitting only electricity from intermittent resources is a fiction. Physics, not politics or policy, governs how electrons flow over an integrated transmission network. Furthermore, only a fully integrated, interconnected grid can function as a Smart Grid with protocols and standards for the components that will realize Smart Grid’s full potential.

We urge this Commission to formally adopt a position in favor of the legislation outlined herein.

We understand that the issue of new transmission siting authority is in Congress’ court. We will dedicate our efforts there to helping make that happen. But while Congress is debating siting legislation FERC should not stand pat until it gets new siting authority. There is important work to be done in the meantime.

Interconnection-Wide Transmission Planning

Exelon supports an enhanced interconnection-wide, multi-state planning regime. The process must be designed to better integrate the existing fragmented planning processes and to facilitate permitting and construction of needed transmission investments at the lowest reasonable cost.

Transmission expansion plans are being developed today to accommodate new generation but there simply is no effective multi-regional planning process. The integrated grid needs to be planned, and siting accomplished, based on a planning process covering the largest footprint and including the broadest stakeholder input. The nation will be best served if the “right” transmission projects are built in the “right” places.

Even where RTOs exist, the current RTO planning processes lack the scope to address the inter-regional nature of large-scale new generation development such as wind that requires multi-regional transmission. An organization that has a wider view of the entire Eastern or Western Interconnection is needed to develop least-cost plans for new transmission projects. Specifically Exelon supports the formation of independent Eastern and Western Interconnection Planning Authorities (“IPAs”) with authority to develop mandatory plans for expanding the transmission grid, subject to FERC approval.

The Joint Coordinated System Plan (JCSP), a collaborative effort of the Midwest ISO, PJM, SPP, TVA, MAPP and several key members of SERC to understand

what would be required to integrate a large amount of renewable resources into the grid, shows some promise, though there have been bumps in the road. In addition, participation in the planning effort must be mandatory.

One scenario the JCSP modeled assumed that 20% of the generation in the Eastern Interconnection would be wind. Under that scenario, 229 GW of new wind generation would be integrated by 2024. The question posed was what transmission resources would be needed under that scenario. This would require 36 GW of new baseload generation and over 14,000 miles of new EHV (345kV and above) AC and HVDC transmission. The cost would be approximately \$80 billion. This experience shows the importance of understanding fully the implications of setting goals such as “20% by 2024” and the importance of Interconnection-wide participation in planning to demonstrate those implications.

Even though this planning endeavor involved the majority of the Eastern interconnection, the analysis was limited in scope and did not include wind resources located in the Eastern Seaboard. New York and New Jersey have filed objections stating that the JCSP did not include assumptions they believe are important in planning for large-scale wind integration, and they have not endorsed the JCSP 2008 report. I would also note that some RTOs were not truly committed to the joint process.

Clearly this Commission needs to encourage the broadest possible participation in this and other joint planning processes, with enhanced scenario planning that includes resources (including generation, efficiency, and demand response) in all regions.

In particular, Exelon believes that large new investments should be evaluated under a variety of economic scenarios, including the effect of a Federal renewable portfolio standard (“RPS”), comprehensive climate change legislation and the potential for new technologies such as storage. While interconnection of clean generation resources is a national objective, there are economic choices and tradeoffs to be made in configuring the new transmission facilities that will be associated with those and other conventional resources. These decisions have very large cost implications and should be evaluated rigorously.

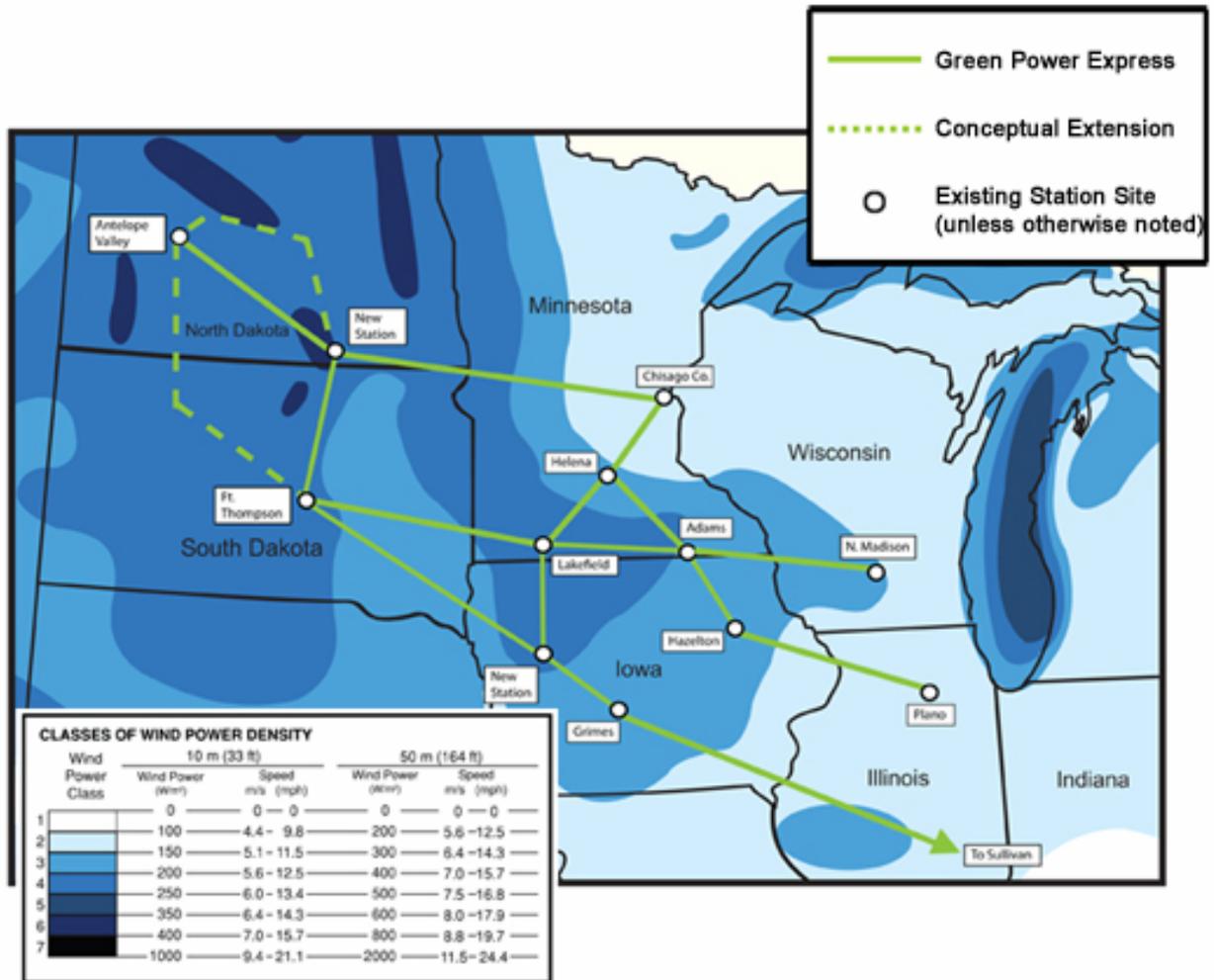
For example, one proposed transmission project would be built to deliver up to 2,500 MW of wind generation from the Dakotas into Chicago. Putting aside that substantial wind resources in Illinois are closer to Chicago and require less expensive transmission to integrate into the system, there is not enough load in Chicago to absorb all of the additional generation and not enough transmission out of Chicago to carry the excess to PJM and the East where it may be needed. A rigorous, Interconnection-wide planning process might determine that new transmission from Chicago into the East or Southeast to carry the excess power would be an appropriate solution. Or such a planning process might determine

that PJM would be better off with wind power developed off the east coast of the Mid-Atlantic region and that wind from the Dakotas should go west or south.

You may hear from other panelists that we don't have time for a rigorous Interconnection-wide planning process; that it's obvious where the "best" wind and solar resources are and it's obvious where the transmission is needed to carry the energy generated by those resources. But in Exelon's view, and in the view of the NYISO and ISO-NE in their letter to the JCSP participants, it is not so obvious what will be in the public's best interest when weighing all of the relevant factors. Without a rigorous Interconnection-wide planning process, we will be vulnerable to costly unintended consequences that could far outweigh the current perceived benefits of developing certain energy resources for delivery to certain markets.

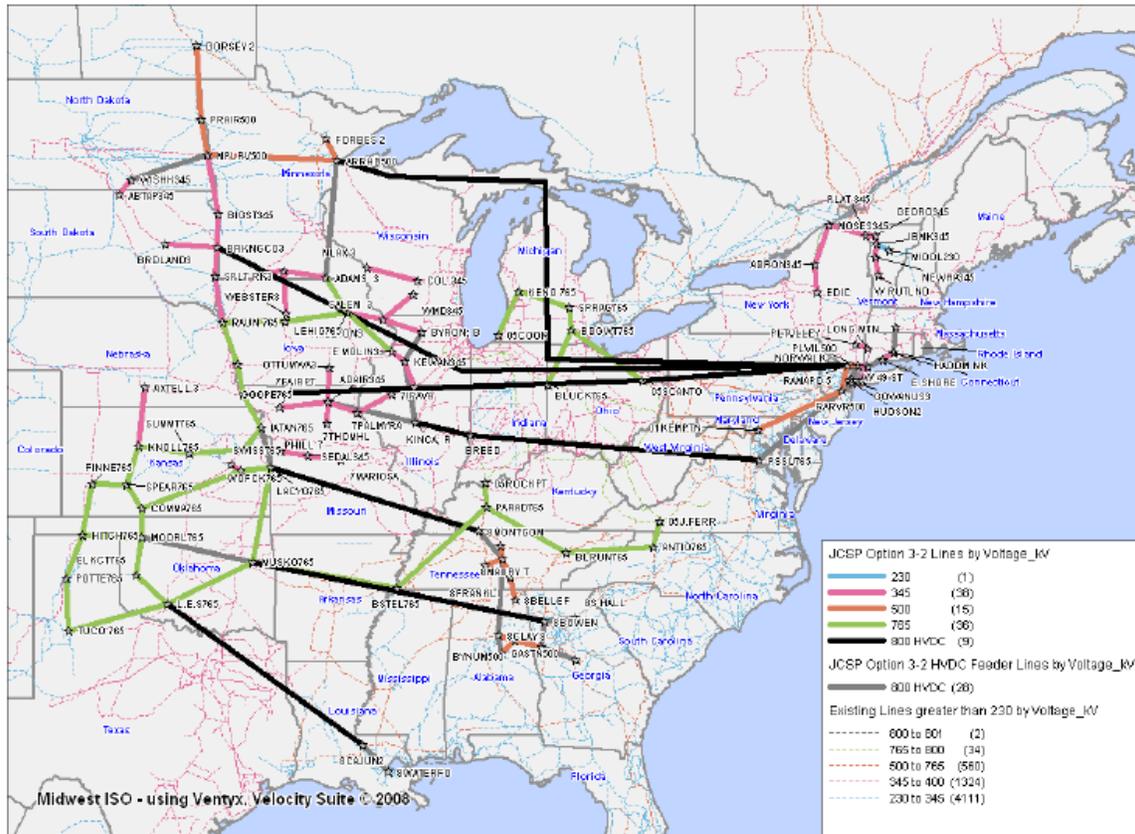
The following two pictures tell the story. They show entirely different transmission plans for integrating wind generation into the Eastern Interconnection. One is a proposal for spending \$10-12 billion to deliver Dakota wind to Chicago, Minneapolis, Madison, and somewhere in Indiana. Thus the cost is ~ \$50/MWh; even by Washington standards these days that is a whole lot of money. And that does not include the transmission upgrades necessary to accept the power. The other is the conceptual analysis conducted by the JCSP group based on a 20% Wind Energy Scenario.

Proposed 765kV Lines from Dakotas to Chicago



Green Power Express Conceptual Map located at http://www.thegreenpowerexpress.com/concept_map.php

JCSP 20% Wind Energy Scenario



JCSP'08 Executive Summary at p. 9 located at <http://www.jcspstudy.org/>

Without a detailed Interconnection-wide plan, which receives input from utilities, regulators and customers, there is no way to know which of these scenarios is more cost effective, or whether there are others that should be considered. Having a well thought out plan is essential when tens or hundreds of billions of dollars of investment in new infrastructure are at stake.

Thus, whether IPAs are created by statute or encouraged by FERC, it is important that IPAs have clear guidance as to principles to be used in planning for generation and transmission expansion. IPAs should ensure the needs of the entire interconnection are taken into account and that economic planning principles are used, including cost/benefit considerations where appropriate. Efficiency and demand-side resources should be included in these plans. And of course, plans should be subject to FERC approval.

Interconnection-Wide Cost Allocation

A major question is who should pay for investments in New High Voltage Transmission at a cost of tens of billions of dollars. Historically, the customers of the utility that built the transmission paid for the investment. With the advent of RTOs, FERC has sought to allocate costs more widely.

Now we have a new circumstance facing us: The need to integrate renewable and other zero- or low-emitting generation resources into the wholesale electric grid. Doing so is a national priority and FERC's policy for allocating the costs of the new transmission should reflect that fact. With the economic planning process described above, we support IPA-wide cost allocation policies; in other words, the cost of interconnecting and integrating the new facilities would be socialized across all load in the interconnection. IPA-wide allocation should be limited to transmission facilities (345 kV and above and 100 kV and above feeder lines) that are integrated with the network and strengthen the grid. It should not be utilized for DC lines that effectively serve only a subset of the load in the interconnection and do not contribute to the overall reliability of the interconnection. The cost of such lines should be allocated on a beneficiary pays basis.

Spreading costs of new investment across the entire interconnection, including Power Marketing Authorities and public power entities, will spread costs across the largest number of customers, thereby reducing the impact on individuals. Such allocation will be equitable since all customers will benefit from access to "green" resources and increased reliability brought by transmission investments. Furthermore, a strong transmission system will support competitive markets and all customers will benefit from the increased competition.

Spreading costs that have a national benefit over all load is not a new concept. NERC, which provides national and in fact continental benefits, spreads its costs over all load in the contiguous United States and Canada on the basis of net energy for load. A similar allocation can easily be done on an interconnection-wide basis within the United States.

In the absence of new legislation, FERC should formally explore, and adopt, policies that would socialize the cost of building New High Voltage Transmission facilities across the broadest possible group of customers in each interconnection, while preserving the option of going further once new legislation is enacted. If we are successful in securing new legislative authority requiring interconnection-wide cost allocation, FERC should then be prepared to conduct a rulemaking to flesh out the details for socializing the costs of new transmission across the entire Eastern and Western interconnections. The need to enhance our Nation's transmission infrastructure to accommodate new sources of generation is a national priority; the costs of constructing that transmission should be borne by all.

Competitive Process to Build New Transmission Facilities

Exelon believes that investor-owned and other incumbent utility companies must continue to have an opportunity to build New High Voltage Transmission and to use any federal siting authority. However, that right should not be exclusive to incumbents. With tens or hundreds of billions of dollars of investments needed, the incumbent utility should be subject to a competitive process whereby new entrants may compete to build the facilities at a lower cost. Such a process was used successfully in Texas recently. In Exelon's view, such a process will ensure that the transmission system developed is cost-effective and efficient.

Conclusion

Transmission planning and cost allocation should not stop at individual utility or RTO borders. Exelon supports legislation and, where necessary, new rules that incorporate siting, planning, and cost allocation for transmission both to support new generation and to enhance reliability of the existing grid. FERC should begin to take steps now, before legislation is enacted, to encourage interconnection wide planning processes and to require that costs for New High Voltage Transmission are shared by all users (a.k.a. load) in the interconnection. A strong, efficient and economic transmission network will enhance the public benefits of increasing reliance on renewable resources and of increasing efficiency in competitive electricity markets.