

March 4, 2016

COMMENTS OF WIRES

WIRES¹ (www.wiresgroup.com) wishes to express its appreciation to the Secretary and the key staff working on the QER for stimulating creative thinking about the future of the Nation's electric system and its electric economy. Naturally, we are especially interested in what DOE and the Administration are prepared to address with respect to the future expansion and upgrade of the Nation's high voltage electric power system. We believe that a transmission system holds the key to maintaining high levels of reliability and resilience over time, insurance against the consequences of climate change and weather events, strong power markets, and (as the QER Phase 1 makes abundantly clear) the deployment of new operating techniques and technologies, including lower-carbon and energy efficient power production.

Our investigations confirm that investment in transmission must continue at least at current levels for the foreseeable future and we therefore appreciate the Department's receptivity to the main point made in our recent studies – i.e., that transmission planners must incorporate into their analysis the multiple benefits of transmission projects, so that the most beneficial projects are constructed in the future. Contrary to conventional wisdom that avoiding transmission investment is always least cost, a failure to retool long-term grid planning (including under approved Order No. 1000 processes) will potentially impose sizeable, even enormous, additional costs and risks on consumers and the economy.

Despite the broad scope of QER Phase 2, WIRES is encouraged by the QER's suggestion that the Department will conduct the "national review of transmission plans and assess barriers to their implementation." We await the results. Realistically, WIRES recognizes that the persistent divisions of regulatory authorities and changing priorities underlie much of the transmission sector's current difficulties and that solutions to these challenges may lie elsewhere. Nevertheless, WIRES believes that DOE is in an ideal position to facilitate grid modernization, not only through its R&D mission but by improving the modeling of likely power markets including regional generation mixes and technology deployments. The uncertainties created by new technology, by public policies like EPA's Clean Power Plan, and by changing business models and practices should not be allowed to slow transmission planning and development, as its principal strength is its ability to bring a level of adaptability and optionality to the electric system as it transforms. As WIRES' President observed when the Clean Power Plan – an important but not singular impetus to transmission development – was recently stayed by the Supreme Court:

Though the Supreme Court's stay is a significant development, the transmission planning related to CPP that is currently being undertaken by RTOs, states, transmission owners, and other stakeholders should continue apace. The initial compliance deadlines are not that far out into the future, and given the long lead time it takes to develop transmission, we should

¹ WIRES is an international non-profit association of investor-, member-, and publicly-owned entities dedicated to promoting investment in a strong, well-planned, and environmentally beneficial high voltage electric transmission grid. WIRES members include integrated utilities, regional transmission organizations, independent and renewable energy developers, and engineering, environmental, and policy consultants. WIRES' principles and other information are available on its website: www.wiresgroup.com.

not delay the planning being done to identify the facilities that potentially would be needed as part of states' CPP compliance plans to meet the carbon reduction requirements in a cost-effective manner and to keep the grid reliable."

At previous meetings with DOE staff, several points of agreement emerged:

- The U.S. and Canada (and potentially Mexico) must work together to establish a robust international electricity market, and transmission will be its platform. The role of government in pursuing that vision for a largely privately-owned network like the grid, is different than its support for the highway system or the Internet is; but DOE has a national breadth of interest and a grasp of various technological and regional realities through EIPC and other initiatives. It need not defer to FERC or State PUCs in defining the glide path to the grid of 2050.
- We need to devise better methods of doing cost-benefit analyses for future grid additions and upgrade.
- Transmission can advance and complement the cause of local and distributed generation and technology deployment. As we stated in our October 10, 2014 letter to Secretary Moniz and Director Holdren (citing a member of the Secretary's own Electricity Advisory Committee):

The explosion of controllable grid elements and market players by 2050 will challenge today's grid operating systems, calling for millisecond-level operational controls beyond human interaction ability. The glue will be a reliable, robust, interconnected, transparent, resilient, and secure transmission grid, seamlessly connected to transformed distribution networks that smartly interact with customers and their systems.

This observation encapsulates WIRES' view that a powerful transmission system is the principal lever that will enable and sustain power markets, new technology deployment, and grid modernization at the bulk power level and even across distribution systems, including new distributed and diverse energy resources, more elaborate markets for power, demand responsiveness, new sources of resilience like storage, microgrids, and smart technologies, and energy efficiency. For this, we cite London Economics' *Market Resource Alternatives: An Examination of New Technologies In the Electric Transmission Planning Process* (2014).

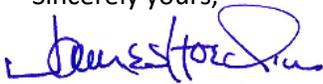
- DOE should begin its review by analyzing whether the Order No. 1000 regional planning processes complement each other and advance interregional (cross seams) project development. Even its principal author, former Chairman Jon Wellinghoff, finds the progress made under this landmark initiative merits only a C+ and this after 5 years of arduous implementation.
- The kind of additional analysis the QER anticipates requires the availability of more and better transmission data than is currently collected by either EIA or FERC; this is the Achilles heel of regional and interregional planning. It is virtually impossible to find even basic information about the number and status of projects being planned or reviewed across the country, unlike other energy delivery systems tracked by the Energy Information Administration.

- The national transmission study to which the QER alluded can move the U.S. closer to a national infrastructure policy and/or a vision of what the grid must become. But it will be important to bring state policymakers into the process so that (1) relevant regional priorities can be understood and incorporated, (2) greater agreement about the future of the interstate commerce in power can be established, and (3) inefficient and contradictory regulatory practices (e.g., in siting and cost allocation) can be changed. WIRES views today's stakeholder discussion as an important step in this process and we eagerly await an end product.

The Department's plan for a clean energy future is an enormous agenda, all the more so if DOE expects to conclude the review and barrier assessment during this Administration. We have tried to prioritize the tasks that are described in general terms in the QER thus far. Although WIRES needs to give this further consideration, it is readily apparent that there are three threshold components to the national transmission review: (1) an analysis of the consistency and adequacy of the regional and interregional plans under Order No. 1000, (2) development of better transmission data collection (at DOE and FERC), and (3) a reassessment of how to model potential future scenarios based on more current information, foreseeably competitive technologies, and improved planning techniques. Because technology and the resource base are rapidly evolving, with or without the Clean Power Plan, we can waste no time ensuring that a sound infrastructure platform will be available.

It is our hope that this meeting and the studies we have provided will help you focus your efforts, so that the Secretary's contribution to improving the economic efficiency and reliability of the electric system can be fairly immediate. Thank you for considering WIRES' views.

Sincerely yours,



James Hoecker
WIRES Counsel

WIRES refers the reader to studies it has sponsored which we previously provided. They are available at www.wiresgroup.com –

*The Brattle Group, **Toward More Effective Transmission Planning: Addressing The Costs and Risks of An Insufficiently Flexible Electricity Grid** (2015)*

*London Economics International, **Market Resource Alternatives: An Examination of New Technologies in the Electric Transmission Planning Process** (2014)*

*The Brattle Group, **The Benefits of Electric Transmission: Identifying and Analyzing the Value of Investments** (2013)*