

**Testimony of Chairman Jon Wellinghoff
Federal Energy Regulatory Commission
Before the Energy and Environment Subcommittee
Of the Committee on Energy and Commerce
United States House of Representatives
Hearing on the Future of the Grid: Proposals for Reforming National
Transmission Policy
June 12, 2009**

Mr. Chairman, and members of the Subcommittee:

My name is Jon Wellinghoff, and I am the Chairman of the Federal Energy Regulatory Commission (Commission). Thank you for the opportunity to appear before you today to discuss the critical topic of the development of our Nation's electric transmission grid.

Transmission facilities are critical to meeting the goal of reducing reliance on carbon-emitting sources of electric energy and bringing new sources of renewable energy to market. A reliable and robust transmission grid is essential to allow regions, states, and utilities to access least-cost resource options to meet state and national environmental, economic and security goals. To meet the challenges of building needed new transmission facilities, we must address not only the role of federal siting authority but also the closely-related issues of transmission planning and cost allocation. In doing so, we must focus on maintaining the reliability of the electric system. The time has come to develop a regulatory framework that will allow us to successfully meet these challenges. I commend you, Mr. Chairman, and the Subcommittee for your decision to hold a hearing on these important issues.

Introduction

President Obama has stated that the country that harnesses the power of clean, renewable energy will lead the 21st century. The President also stated that we will need to build power lines that can carry new clean energy to cities and towns across this country. He also said we should be "starting to build a new smart grid that will save us money, protect our power sources from blackout or attack, and deliver clean, alternative forms of energy to every corner of our nation."

A majority of states have adopted renewable portfolio standards that require utilities to acquire renewable generation capacity, some of which are quite aggressive. For example, the Connecticut standard requires that 27% of the energy consumed in the state be generated using renewable resources by 2020.

Both houses of Congress are considering a federal renewable energy standard as well.

Clean power is essential to meeting energy goals such as promoting fuel diversity, reducing greenhouse gas emissions, strengthening our national security, enhancing competition, ensuring reliability, and revitalizing our economy. The need for additional federal authority to achieve these goals is clear. Historically, the Nation's electric utilities transported fuels to generate electricity to plants located near load centers. Many of today's clean energy resources are located far from consumers and existing transmission facilities and those resources cannot be moved. Moreover, they are not evenly dispersed throughout the country. Delivering the power generated by these resources to consumers will require the planning, siting and construction of interstate and inter-regional transmission facilities. Only Congress, exercising its authority to regulate commerce among the states, can address this problem.

The requirement for greater fuel diversity, whether as a result of federal or state goals, cannot be accomplished unless we ensure that the renewable, and sometimes variable, generation resources that we will rely upon to meet these goals can be reliably integrated into the power grid and ultimately deliverable to consumers. Renewable energy resources, particularly those whose operation follow a natural but variable cycle, must be integrated into the transmission system in a manner consistent with reliable operation of the grid. We know that the grid can accommodate some level of renewable generation, but we also know that, with the current configuration of the grid and the variability of some forms of renewable generation, it cannot accommodate 100%. Compounding the challenges of integrating renewable generation, we also know that the grid is aging, was designed for more traditional types of generation, and is characterized by decreasing reserve margins. These conditions mean that smaller disturbances on the grid cause larger fluctuations and increase the risk of outages.

Because of these factors, Commission staff is conducting a study to determine the appropriate metrics for use in assessing the reliability impact of integrating large amounts of variable renewable power generation onto the existing power grid. That study, which is being undertaken by Lawrence Berkeley National Laboratory and overseen by Commission staff, is due to be completed by November 2009. When the study is complete, it will help answer the question of how variable resources can be reliably integrated onto the existing grid, which will help inform policy makers about the current limitations of the grid and identify what new resources and transmission facilities will be necessary to reliably accommodate future renewable resources and those currently under development.

I believe that, if the Nation is to meet its goals, there must be a mechanism that, after the states have had an opportunity, allows a transmission developer to invoke federal authority to site the transmission facilities necessary to interconnect renewable power to the electric transmission grid and move that power to consumers. We need a national policy commitment to develop the transmission infrastructure to bring renewable energy from remote areas where it is produced most efficiently into our metropolitan areas where most of this Nation's power is consumed. This transmission infrastructure is likely to be comprised of extra-high voltage facilities, related feeder lines that will interconnect remote renewable energy resources to the transmission grid, and supporting upgrades to the existing grid (hereinafter, "transmission infrastructure"). Without this national commitment, we will not be able to take advantage of our capacity to develop clean power.

We must develop a structured regulatory framework that will enable the United States to build the transmission infrastructure necessary to deliver our Nation's high quality, location-constrained renewable resources to load centers. That framework must adequately address transmission siting and the related issues of transmission planning and cost allocation. And above all, we must ensure that we preserve the reliability of the electric grid so that consumers and businesses continue to receive the highest level of service, protecting the safety of our citizens, the security of our Nation, and the health of our economy.

There is a real opportunity to make the United States a world leader in developing the clean energy industries of the future. Without a coherent drive for a smart grid that is designed and built (or rebuilt) to achieve our national energy and environmental goals in a timely fashion, the jobs and sustainable economic development options from those potential new industries could very well manifest in Europe or Asia rather than here.

Though the focus of this hearing is on ensuring that the development of the interstate transmission grid allows our country to meet national and state goals, we should not lose sight of the critical role of local renewable energy, distributed resources, and demand response. We must focus on ensuring that we remove barriers to entry for local renewable and distributed resources. Developing and reliably delivering these local resources is important as we expand our capacity to generate clean power, but that effort must be made in concert with and not separate from developing the transmission infrastructure that I describe above. An optimal blending of both resources will be necessary to achieve our Nation's energy goals. That optimization process will require a collaborative effort between the states and the Federal government with an expanded Federal role.

The Need for an Expanded Federal Role

The electric grid is actually a combination of individual systems, separated into three electrical interconnections. Though there has been some expansion of regional and inter-regional transmission facilities over the last 15 years, that expansion is not sufficient to address the need I have identified to develop our transmission infrastructure to allow us to meet state and national goals. In the Energy Policy Act of 2005, Congress directed the Commission to develop incentive-based rate treatments for certain new transmission facilities, and while this effort has been effective in encouraging developers to come forward with new transmission projects, it does not ensure that the projects will be constructed and placed in operation. Without new siting authority, the Commission's ability to address these challenges is limited. For this reason, I recommend that the Congress enact legislation that will enable transmission developers to invoke federal authority in appropriate circumstances to site the transmission facilities necessary to interconnect renewable power to the electric transmission grid and move that power to consumers. Such legislation should also address cost allocation and planning of such facilities. Each of these issues is a crucial aspect of developing an effective power grid that can spur the production and reliable movement to market of renewable energy.

Siting. States should continue to have the opportunity to site transmission facilities, but transmission developers should have recourse to a federal siting authority under appropriate circumstances. With additional authority, the Commission could play an important role in this grid-building effort as it has the institutional structure, capacity, and experience to make important contributions. The Commission is well-versed in reviewing and authorizing critical energy infrastructure projects, and in establishing a regulatory regime that encourages the development of appropriate energy projects, while at the same time protecting the interests of consumers and safeguarding the environment.

Since 1920, the Commission has been charged with licensing and overseeing the operation of the Nation's non-federal hydropower projects. Using existing authority under Part I of the Federal Power Act, the Commission has sited thousands of miles of electric transmission lines related to these projects that have delivered this power to the Nation's consumers. Likewise, under the Natural Gas Act, the Commission has authorized the construction of natural gas pipelines for over 65 years. Under the Commission's oversight, the country has developed a robust, comprehensive pipeline grid that moves natural gas supplies from distant producing areas to consuming regions. Based on its decades of experience in siting natural gas pipelines and in siting hydropower projects and associated transmission lines, the Commission has developed comprehensive, efficient processes that provide for public notice and extensive public participation, including participation by affected states.

The Commission's existing transmission siting authority is limited. The Energy Policy Act of 2005 gave the Commission authority to site and permit interstate electric transmission facilities to relieve congestion under limited circumstances and only within geographic areas designated by the Secretary of Energy as national interest electric transmission corridors. However, the United States Court of Appeals for the Fourth Circuit has recently held that the limited authority granted by Congress to the Commission to review and site facilities needed to transmit electric energy in interstate commerce is not available in situations where a state agency has timely denied an application for a proposed project, regardless of how important the project may be in relieving congestion on the interstate grid. The court's ruling is a significant constraint on the Commission's already-limited ability to site appropriate projects to transmit electricity in interstate commerce. To date, no applicant has sought Commission authority to site transmission facilities under this law.

Congress should consider the question of how best to exercise its authority over interstate commerce to ensure that the necessary transmission facilities are built in a timely manner to deliver location-constrained renewable power to customers. Federal siting authority would be helpful even if limited only to transmission facilities needed to reliably meet renewable energy goals and only in those cases where the states have had an opportunity to address a proposal in the first instance. It is clear, however, that without some broader federal siting authority, it is unlikely that the Nation will be able to achieve its renewable energy goals.

Planning. Effective regional and inter-regional transmission planning will improve reliability, reduce congestion, increase the deliverability of existing power supplies, and identify investments necessary to integrate significant potential sources of renewable energy that are constrained by a lack of adequate transmission capacity or facilities. Increasingly, such planning must look beyond the needs of a single utility or even a single state to examine the grid requirements of the entire region. The Commission has recognized the need for improvements in transmission planning. To improve the coordination of transmission planning among utilities, it required all public utility transmission providers to establish and participate in open and transparent regional transmission planning processes (Order No. 890, February 2007). The Order No. 890 regional planning processes are in their second year, and the Commission is reviewing how well those planning efforts are working, is monitoring implementation, and will be looking for ways to improve the regional planning processes.

Meeting our national energy goals will require building on such regional planning initiatives and expanding their scope. I urge the Congress not to be distracted by the false choice between so called "bottom-up" and "top-down" planning models.

It is indisputable that local and sub-regional planning and coordination must continue, addressing such issues as smaller upgrades that must proceed in a timely way, without awaiting regional or inter-regional review. But to achieve greater benefits and efficiencies, we must also create a structure that includes coordination on an inter-regional basis, which will facilitate, for example, the development of facilities to transport electric energy from areas rich in renewable energy resources to load centers or the deployment of key smart grid equipment and systems. The American Recovery and Reinvestment Act of 2009 includes funding of an initial analysis to implement this approach through the appropriation of \$80 million to the Department of Energy to conduct, in consultation with the Commission, a thorough resource assessment for each interconnection to facilitate regional transmission planning. Going forward, Congress could help by clarifying the Commission's authority to ensure that state and regional planning is consistent with national energy goals. I recommend, however, that any new transmission planning requirements be harmonized with, rather than supplant, planning efforts already taking place at the regional, state and local levels.

Cost Allocation. Renewable energy resources such as wind, solar, and geothermal are usually found in large quantities at dispersed locations remote from load centers. For this reason, there are often high costs associated with developing transmission facilities needed to deliver power from such resources. If the resource developer or the host utility is compelled to bear all of the cost of these transmission facilities, they may not be developed.

Under Federal Power Act sections 205 and 206, the Commission ensures that public utilities' (investor-owned utilities) rates, terms and conditions of transmission service in interstate commerce are just, reasonable, and not unduly discriminatory or preferential. This responsibility includes setting rates for recovering the costs of new transmission facilities built by public utilities. At present, the Commission has greater ability to assign such costs over broad geographic areas where there is a regional transmission organization (RTO) or independent system operator (ISO).

If Congress determines that there are broad public interest benefits in developing the transmission infrastructure necessary to accommodate the Nation's renewable energy potential, and therefore that in some cases it may be appropriate for the costs of transmission facilities needed to meet our renewable energy potential to be fairly spread to a broad group of energy users (for example, across a region or multiple regions), then Congress should consider clarifying the Commission's authority to allocate such transmission costs to all load-serving entities within an interconnection or part of an interconnection where it is appropriate to do so. Of course, the Commission would need to ensure, as it does today, that the costs are allocated fairly to the appropriate entities and that regions work together to

develop cost allocation mechanisms that garner broad support. However, I urge the Subcommittee to avoid including unduly restrictive language on cost allocation in any new legislation, particularly language that would impose a requirement to calculate the precise monetary benefits expected to accrue from a new transmission facility. Rather, Congress should maintain the Commission's flexibility to address cost allocation for each facility under the facts and circumstances presented.

It is important to acknowledge that appropriately allocating the costs of transmission facilities to connect remote resources will not disrupt the implementation of state resource policies or disadvantage local renewable or demand resources. Rather, a fair cost allocation will eliminate a barrier to the development of new, clean resources and thus will facilitate competition, which should ensure that utilities may access least-cost resource options to meet state and national environmental, economic and security goals. Development of the necessary transmission infrastructure will enable those resources options to reach load centers, and, as discussed below, ensure that they may do so without jeopardizing the reliability of the system. The issue is not how to choose between nearby renewable resources and more distant renewable resources: we need both. The issue is ensuring that costs are allocated fairly, sending the right economic signals without unduly impeding development of location-constrained resources.

Conclusion

In summary, to achieve the Nation's renewable energy goals, Congress and federal and state regulators, including the Commission, must address in a timely manner the issues of transmission planning, transmission siting and transmission cost allocation. Congressional action on all three of these related areas, particularly siting and cost allocation authority for transmission infrastructure needed to deliver high quality, location-constrained renewable energy, would provide greater ability to achieve these important goals. I recognize that the concepts we are discussing today can seem threatening or overreaching to some and that the Commission's actions have not always been perceived as benevolent. I recognize that we need to retain state and local expertise and authorities that are critical to everyday grid operations and regulation, but we also need to expand regional and national cooperation. We are not seeking to usurp local prerogatives but to make sure the Nation's electricity grid is prepared to meet the challenges and realize the opportunities of the 21st century. There are elements of the various bills under development in the Senate and the House that address the matters I have discussed, and I would be happy to answer follow-up questions in writing about the specific provisions in those bills.

Thank you for the opportunity to appear before you today to provide my insight as you consider legislation to provide a regulatory framework for tackling the challenging energy issues that we face. I stand ready to work with Congress, state and federal regulators, industry, and other stakeholders on these important issues. I would be happy to answer any questions you may have.