Remarks of FERC Chairman Jon Wellinghoff
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Thank you for inviting me to speak with you this morning. It is a pleasure to join you here in my home state of Nevada to discuss the energy challenges now facing our Nation.

I would like to focus my remarks on several issues associated with our Nation's electric transmission system. I highlight those issues because a robust electric transmission grid is essential to achieving the vision of an energy future that I believe most of us share.

Before describing that vision and the related challenges we now face, it is useful to consider the current state of our transmission system. A few statistics are instructive:

Our transmission grid is currently divided among more than 300 transmission owners and more than 100 balancing authorities. The grid includes some 164,000 miles of transmission lines at 230 kV and above, but less than 3,000 miles of those lines are at 500 kV or above.

Recent years have seen the beginning of much needed investment in transmission infrastructure. Nonetheless, since 2001, only 3,000 miles of transmission lines at 230 kV or above have been put into service. Moreover, only 650 miles of those facilities crossed state lines. By contrast, our Nation has added more than 13,000 miles of new interstate natural gas pipelines since 2001.

The bottom line from such statistics is that our transmission system is Balkanized and, in many respects, improving only slowly.

Why does that state of the grid matter? Because a robust transmission system is a key to achieving an energy future in which clean, affordable, and reliable energy are the everyday norm. Indeed, a robust transmission system is essential to achieving many of our Nation's goals, such as revitalizing our economy, strengthening our national security, promoting fuel diversity, reducing greenhouse gas emissions, and ensuring reliability in the delivery of electricity.

As you know, our Nation's electric utilities historically transported fuels to generate electricity at plants located near load centers. Delivering central station power to local distribution loads remains an important task for our transmission grid, but we are now asking that system to do much more.

For example, many of our clean energy resources are located far from both consumers and existing transmission facilities, and those resources cannot be moved. The potential of such location-constrained, clean energy resources is tremendous. Various studies have estimated the potential of such resources as including:

- 350 GW of wind power in the Midwest;
- 200 GW of offshore wind power on the Atlantic shelf;
- 200 GW of wind power in the West;
- 1,000 GW of solar power in the Southwest;
- 50 GW of conventional geothermal power in the West;

- 100 GW of geopressure geothermal power in Texas and the Southeast; and
- 100 GW of hydrokinetic power in rivers and streams

Harnessing the potential of such largely untapped clean energy resources must be part of our strategy to move toward energy independence and to confront climate change. Toward that end, we cannot rely solely on either renewable energy resources that are located far from our Nation's load centers or those that are closer to loads. We need both of these categories of resources to meet our Nation's energy challenges.

However, as former Senate Energy Committee Chairman Bennett Johnston stated earlier this year, transmission is the Achilles heel of renewable energy development. The tremendous potential of our location-constrained, clean energy resources means little by itself. We must ensure that these resources can be reliably integrated into the transmission grid in order to be deliverable to consumers.

Thus, the question before us is: how do we get from where we are to where we want and need to be? To meet today's energy challenges, I believe that we need a national policy commitment to developing a reliable and robust transmission grid. I also believe, and I have told Congress, that such a commitment should involve action on three closely related issues: planning, siting, and cost allocation.

Transmission Planning

Historically, the main goal of the electric industry was to plan for reliable energy services at least cost. We called this goal "Least-Cost Utility Planning" back in 1983, when I wrote one of the Nation's first comprehensive utility planning statutes as Nevada's Consumer Advocate.

Changes over the past quarter century mean that our traditional implementation of that goal needs to broaden. Planning needs to recognize the security and economic benefits of using renewable energy to reduce our reliance on foreign energy, and also to recognize the costs of what today remain externalities, such as carbon and heat emissions. And it needs to do so while at the same time ensuring that the system remains reliable and the customer is served at a reasonable economic and societal cost.

Increasingly, planning efforts must look beyond the needs of a single utility or even a single state. Related to such efforts, 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 energy that are constrained by a lack of adequate transmission capacity or facilities.

The Commission has recognized the need for improvements in transmission planning. Our Order No. 890 required open, transparent, and coordinated regional transmission planning and required evaluation in that planning of demand resources on a comparable basis to other resources. Commission Staff recently completed a series of conferences – held last month in Phoenix, Atlanta, and

Philadelphia – to review how well the processes required by Order No. 890 are meeting the needs of our Nation, and to collect input as to how the Commission can improve upon the regional planning processes.

As you know, Congress is also considering how building on such regional planning initiatives and expanding their scope can support our Nation's energy goals. Earlier this year, Congress included in the American Recovery and Reinvestment Act of 2009 $80 million for the Department of Energy to conduct, in consultation with the Commission, a thorough resource assessment for each interconnection to facilitate improved transmission planning.

Improving transmission planning is also an important point in the ongoing Congressional consideration of energy and climate change legislation. I have urged Congress, in that consideration, 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 issues such 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 also need a structure that includes coordination on an inter-regional basis, which will facilitate, for example, the development of facilities to transport power from areas rich in renewable energy resources to load centers, as well as the deployment of distributed resources and smart grid equipment and systems. For this reason, I believe that any new transmission planning requirements should be harmonized with, rather than supplant, planning efforts already taking place at the regional, state, and local levels.

Transmission Siting

With respect to transmission siting, I recognize and respect the long-standing role of the States. States should continue to have the first opportunity to site transmission facilities. Nonetheless, I believe that, under limited and appropriate circumstances, transmission developers should have recourse to federal siting authority at the Commission.

The Commission is well-versed in reviewing and authorizing energy infrastructure projects, and in establishing comprehensive, efficient processes that encourage the development of appropriate projects, while also 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 authority under Part I of the Federal Power Act, the Commission has sited thousands of miles of transmission lines related to these hydropower 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.

By contrast, the Commission's existing, non-hydroelectric 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. Earlier this year, however, the U. S. Court of Appeals for the Fourth Circuit held that the limited authority granted by Congress to the Commission to review and site facilities to transmit electricity in interstate commerce is not available in situations where a state agency has timely denied an application for a proposed project. The Fourth Circuit's ruling is a significant constraint on the Commission's already-limited ability to site appropriate projects to transmit electricity in interstate commerce.

Without additional federal siting authority, I believe that it is unlikely that we will be able to achieve our Nation's energy goals. Federal siting authority would be helpful even if limited only to situations in which States have had an opportunity to address a proposal in the first instance and to transmission facilities that are primarily for moving renewable energy.

Cost Allocation

I also believe that action is appropriate with respect to cost allocation.

Under sections 205 and 206 of the Federal Power Act, the Commission ensures that public 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 by which public utilities recover the costs of new transmission facilities.

As the Commission recognized in Order No. 890, the manner in which the costs of new transmission are allocated is critical to the development of new infrastructure. The Commission also noted in Order No. 890 several factors that

we weigh when considering disputes over cost allocation: (1) whether a cost allocation proposal fairly assigns costs among participants, including those who cause the costs to be incurred and those who otherwise benefit from them; (2) whether a cost allocation proposal provides adequate incentives to construct new transmission; and (3) whether a cost allocation proposal is generally supported by state authorities and other participants. Commission Staff explored several topics related to the effectiveness of existing cost allocation methods at last month's conferences across the country on Order No. 890 and transmission planning.

To date, the Commission has approved proposals to assign the costs of new transmission facilities over broad geographic areas where there is an RTO or ISO. Although the Seventh Circuit's recent decision with respect to cost allocation for certain types of new transmission facilities in the PJM footprint is disappointing, it is also important to note that the court's decision leaves open the opportunity on remand for the Commission to provide further evidence and rationale to support our conclusion that certain facilities are so beneficial to the grid that their costs should be shared by all users of it.

As I stated earlier, renewable energy resources such as wind, solar, and geothermal are often found in large quantities at dispersed locations remote from load centers. For this reason, there are often significant costs associated with building the 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, regardless of benefits to others, it is less likely that these resources will be developed.

Several bills now under consideration in Congress would find broad public interest benefits in developing at least the transmission infrastructure needed to accommodate the Nation's renewable energy potential. I have suggested to Congress that if it determines that there are such benefits, then it may wish to clarify the Commission's authority to allocate such transmission costs to all benefitting entities within an interconnection or part of an interconnection. Of course, the Commission would need to ensure, as it does today, that such transmission costs are allocated fairly and that regions work together to develop cost allocation mechanisms that garner wide support.

Reliable Integration of Renewable Energy Resources

Having touched upon the closely related issues of planning, siting, and cost allocation, I would like to return briefly to my statement that we must ensure that our renewable energy resources can be reliably integrated into the transmission grid and to my point that there currently are over 100 balancing authorities responsibly for maintaining frequency throughout the grid. Renewable energy resources must be integrated in a way that does not jeopardize the reliability of the remaining system.

With that need in mind, I have directed Commission Staff to conduct a study to determine the appropriate metrics for use in assessing the reliability impact of integrating large amounts of variable renewable generation onto the existing transmission grid. That study, which is being undertaken by Lawrence Berkeley National Laboratory and overseen by Commission Staff, is due to be completed in March or April of next year. When the study is complete, it will help to inform policy makers about the current limitations of the grid and to identify what

investments will be necessary to reliably accommodate continued growth of renewable energy resources.

Conclusion

Finally, I would note that there is increasing recognition that action is necessary to ensure that our Nation has the reliable and robust transmission grid that is essential to achieving the energy vision that I have described. For example, Majority Leader Harry Reid has stated that transmission issues should be part of the Senate's consideration of energy and climate change legislation.

We at the Commission look forward to being part of meeting today's energy challenges.

Thank you again for inviting me to speak with you this morning.