Summary of Testimony of Acting Chairman Cheryl A. LaFleur
Federal Energy Regulatory Commission
Before the House Committee on Energy and Commerce
Subcommittee on Energy and Power
United States House of Representatives

Evaluating the Role of FERC in a Changing Energy Landscape

December 5, 2013

I am honored to lead the Commission at a time when the nation is making substantial changes in its energy supply and infrastructure to meet environmental challenges and improve reliability and security. Although the drivers of power supply changes are largely outside of the Commission's jurisdiction, we must be aware of, and adapt to, these developments in order to carry out our statutory responsibilities to ensure just and reasonable rates, a reliable power grid, and fair and efficient electricity and natural gas markets. Consistent with these responsibilities, we have worked to ensure that energy markets and grid operations fairly accommodate new sources of energy.

While I am happy to address questions on any aspect of the Commission's work, my testimony will focus primarily on reliability and grid security, as these issues have been high priorities for me at the Commission. Ensuring reliability requires that the Commission pay attention to the day-to-day, nuts and bolts activities necessary to keep the lights on, like tree trimming and relay coordination, and also stay abreast of emerging issues, like cybersecurity and geomagnetic disturbances. I believe that the Commission is making progress on both fronts. With respect to the day-to-day reliability issues, over the last three years the Commission has issued orders on new or modified reliability standards for tree trimming, under-frequency load shedding, and reliability planning criteria, among other areas.

In contrast with more traditional day-to-day reliability issues, the Commission and North American Electric Reliability Corporation (NERC) face different challenges with respect to emerging issues like cybersecurity and geomagnetic disturbances. When it comes to threats like these, we do not have the benefit of decades of experience at our backs; instead, we are in the position of developing meaningful, cost-effective regulation in an environment of rapid change and imperfect knowledge. We must avoid both the temptation to defer action until we have absolute certainty and the pitfall of promulgating specific rules that rapidly become obsolete. In this regard, I believe that the Commission has thus far struck a good balance. Two weeks ago, the Commission approved Version 5 of the Critical Infrastructure Protection Standards, a significant step forward for cybersecurity. Similarly, the Commission recently directed NERC to establish standards to address the threat posed by a geomagnetic disturbance. We will endeavor to build on these efforts to meet existing and new challenges to ensure a reliable power grid.

Written Testimony of Cheryl A. LaFleur
Acting Chairman
Federal Energy Regulatory Commission

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Committee on Energy and Commerce
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Chairman Whitfield, Ranking Member Rush, and members of the Subcommittee:

My name is Cheryl LaFleur. For three and a half years, I have had the privilege of serving as a Commissioner on the Federal Energy Regulatory Commission and have appeared before you previously in that capacity. Today, I appear before you as the Commission's Acting Chairman, an appointment I received ten days ago. I look forward to working with my colleagues and the wonderful team of employees at FERC in my new role.

Thank you for holding this hearing and for the invitation to testify. My colleagues and I appreciate the attention and care you give to your oversight duties, and welcome the opportunity to share with you the work the Commission has done, and continues to do, on behalf of the nation's energy customers. In our testimony this morning, we will collectively cover several aspects of the Commission's current work, and we look forward to answering your questions on these and any other areas of our work.

As you know, the Commission's work spans different industries and encompasses a variety of responsibilities. The Commission regulates the wholesale sale and transmission of electricity and natural gas, and the interstate transportation of oil and petroleum products. It licenses non-federal hydroelectric projects, natural gas pipelines, natural gas storage facilities, and liquefied natural gas (LNG) terminals. It is also responsible for the reliability and security of the bulk power grid, and for protecting customers from manipulation in the electricity and natural gas markets.

I am honored to lead the Commission at a time when the nation is making substantial changes in its power supply and associated infrastructure to meet environmental challenges and improve reliability and security. For example, as the Committee is well aware, our nation is experiencing significant growth in the use of natural gas for electric generation, due primarily to the increased availability and affordability of domestic natural gas, but also to its relative environmental advantages and its role in balancing the growing fleet of variable renewable resources. A second factor driving changes in our power supply is the considerable growth of renewable resources, energy efficiency and demand response programs, fostered by developments in technology and by policy initiatives at both the state and federal level. Finally, new environmental regulations are also contributing to changes in our power supply.

Although the drivers of power supply changes are largely outside of the Commission's jurisdiction, we must be aware of, and adapt to, these developments in order to carry out our statutory responsibilities to ensure just and reasonable rates, a reliable power grid, and fair and efficient electricity and natural gas markets. Consistent with these responsibilities, we have worked to ensure that energy markets and grid operations fairly accommodate new sources of energy.

My colleagues will discuss some of the areas of the Commission's work related to power supply changes. The steady growth in natural gas-fired generation is leading to greater interdependence between the natural gas and electricity markets and their associated infrastructures, which was the subject of the last hearing at which Commissioner Moeller and I testified together. Commissioner Moeller will address this issue and its implications in his testimony. Increased availability of domestic natural gas and its growing use in power generation also has implications for natural gas infrastructure, which Commissioner Clark will touch on in his testimony. Finally, changes in power supply require a more robust transmission grid to serve customers reliably and at just and reasonable rates. Commissioner Norris will discuss the current and future landscape of electric infrastructure in his testimony.

While I am happy to answer questions on any aspect of the Commission's work, I want to focus the balance of my testimony this morning on another critical aspect of the Commission's jurisdiction: reliability and grid security, including cybersecurity. Reliability and grid security have been high priorities for me at the Commission. Because of my past experience working directly for electricity and natural gas customers, I know firsthand how hard even a short outage can be on families, businesses, and communities.

The Commission's direct jurisdiction over electric reliability comes from section 215 of the Federal Power Act, which Congress enacted as part of the Energy Policy Act of 2005. Section 215 directs the Commission to work with an independent Electric Reliability Organization (ERO) to develop reliability standards for the Bulk-Power System. Section 215 authorizes the Commission to identify gaps in reliability that require new reliability standards or modifications to existing standards and to direct the ERO to address those gaps, but it does not

authorize the Commission to write the standards themselves. In 2007, the Commission certified the North American Electric Reliability Corporation (NERC) as the ERO. Reliability Standards are developed by NERC pursuant to an open and inclusive stakeholder process, and submitted to the Commission for review and approval.

Ensuring reliability requires that the Commission pay attention to the day-to-day, nuts and bolts activities necessary to keep the lights on, like tree trimming and relay setting coordination, and also stay abreast of emerging issues, like cybersecurity and geomagnetic disturbances.

I believe that the Commission is making progress on both fronts. With respect to the nuts and bolts issues, the Commission has over the last three years issued orders on new or modified reliability standards for tree trimming, frequency response, under-frequency load shedding, reliability planning criteria, and protection system maintenance and testing, among other areas. According to data compiled by NERC, overall reliability has improved or held steady in recent years. For example, the number of Bulk-Power System transmission-related outages (excluding weather events) averaged nine annually from 2008-2011, but only two occurred in 2012. Going forward, the challenge with respect to these and similar day-to-day issues is to improve on the progress the Commission and NERC have made in setting priorities, developing and implementing reliability standards, mitigating violations, and disseminating lessons learned.

The Commission and NERC face different challenges with respect to emerging issues like cybersecurity and geomagnetic disturbances. When it comes to threats like these, we do not have the benefit of decades of experience at our backs; instead, we are in the position of developing meaningful, cost-effective regulation in an environment of rapid change and imperfect knowledge. We must avoid both the temptation to defer action until we have absolute certainty and the pitfall of promulgating specific rules that rapidly become obsolete.

In this regard, I believe that the Commission has thus far struck a good balance. Two weeks ago, the Commission approved Version 5 of the Critical Infrastructure Protection Standards. These standards are a significant step forward for cybersecurity. For the first time, all electric system cyber assets will be required to receive some level of protection, commensurate with their impact on the grid. This advancement, combined with several new cybersecurity controls developed by NERC, puts into place the most comprehensive cyber protections yet approved by the Commission. In the order approving the Version 5 standards, the Commission also proactively directed its staff to hold a technical conference to discuss additional improvements that may be necessary to further enhance cybersecurity.

Because cyber threats can emerge and change rapidly, they cannot be met with reliability standards alone. The Commission works with leaders in the electric industry and in federal and state government to identify, communicate, and respond to cyber threats against the grid. The

Commission is also participating in a consultative process with the National Institute of Standards and Technology for the development of a cybersecurity framework.

The Commission has also taken action to protect the grid from geomagnetic disturbance (GMD) events caused by solar storms, which are an acute example of "high impact, low frequency" threats to reliability. In May, the Commission directed NERC to address the threat posed by a geomagnetic disturbance event in two stages. In the first stage, the Commission directed NERC to develop a standard or set of standards that require transmission owners to take operational steps to prepare for GMD events. In the second stage, the Commission directed NERC to develop standards that require transmission owners to protect against instability, uncontrolled separation, or cascading failures of the Bulk-Power System caused by a GMD event. The Commission recognized that the nature of the threat posed by a GMD event may require a range of responses depending on location, equipment, and system configuration and gave NERC flexibility in addressing this important issue.

Reliability and grid security also encompasses the physical security of the assets that make up the grid—protecting assets from tampering, vandalism, and sabotage. While certain cybersecurity standards require discrete physical equipment protections, in general, the Commission's approach to traditional physical security has been based on cooperative efforts with industry and with other government agencies. The Commission continues to work with electric industry leaders to help develop best practices for physical security, which industry is working to implement.

We will endeavor to build on these efforts and to meet existing and new challenges to ensure a reliable power grid.

Thank you again for the opportunity to be here today, and I look forward to your questions.