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

March 19, 2013

Chairman Whitfield, Ranking Member Rush, and members of the Subcommittee, here is a summary of my testimony, as well as a copy of my written testimony.

Our nation is experiencing substantial 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 the environmental advantages of gas as the cleanest-burning fossil fuel, and the operating advantages of gas-fired generation in balancing the growing fleet of variable renewable resources. This steady growth in natural gas-fired generation is leading to greater interdependence between natural gas and electric markets and infrastructures. FERC held five technical conferences across the country last summer on this topic, and identified two key issues.

The first issue is ensuring adequate pipeline capacity to support both gas-fired electric generation and other gas customers. This is not a gas supply issue but a pipeline infrastructure issue. In certain regions, there may be inadequate local pipeline capacity to support generation during the winter heating season, due to geography, fuel mix, and market structure. This is already an issue in New England, and may be an emerging issue in other regions as more gas is utilized for generation. We got the strong message at the technical conferences to address the issue regionally rather than imposing a national solution, and that is what we are doing. In particular, the market operator in New England, ISO-NE, is working on market enhancements to better ensure the adequate supply of fuel for generation.

The second issue is improving the coordinated operation of the gas and electric networks to optimize the use of the pipelines we have in place. FERC has held a technical conference on improving communication between gas and electric operators to ensure reliability, and has an upcoming technical conference on harmonizing the schedules of gas and electric markets to improve coordination.

Gas-electric interdependence is not a reason to panic, but it is definitely a reason to plan. Viewed in larger perspective, this issue is a byproduct of an American success story: the growth of domestic natural gas resources. As with other major changes in our generation fleet in past decades, this one will require adaptations in operations and infrastructure. I will certainly be proactive in identifying ways to use the authority of FERC to help this adaptation happen smoothly and reliably.

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Chairman Whitfield, Ranking Member Rush, and members of the Subcommittee:

Thank you for the opportunity to testify.

My name is Cheryl LaFleur. Since July 2010, I have served as a Commissioner of the Federal Energy Regulatory Commission (FERC). Earlier in my career, I had the privilege of serving electric and natural gas customers in New England and New York. That experience taught me firsthand just how important electric reliability is to real people and real communities. Since joining the Commission, I have made reliability and grid security top priorities. I have chaired several FERC technical conferences on reliability issues, and am the co-chair — with Commissioner Moeller and our state colleagues — of the FERC-NARUC Forum on Reliability and the Environment. I appreciate the opportunity today to discuss the nature of the gas-electric interdependence issues we are currently addressing at FERC.

Our nation is experiencing a substantial growth in the use of natural gas for electric generation. Since 1997, gas use by power generators has grown 135%, or 6% annually on average. However, over the past three years, gas use by power generators

has grown at an increased rate of 10% annually. The primary reason for the growth in gas-fired generation is the increased availability and affordability of domestic natural gas due to the new extraction technologies. For example, prices have fallen, on average, from $8.80/MMBtu at the Henry Hub in 2005, to $2.75/MMBtu in 2012. In addition, natural gas is the cleanest-burning fossil fuel, making it an attractive option for new generation and for repowering older fossil generation that is uneconomic to operate or to retrofit for new environmental regulations. Finally, the operating characteristics of natural gas-fired generation, in particular its dispatch flexibility, make it very useful in conjunction with our growing fleet of variable renewable resources.

This steady growth in natural gas-fired generation has led to concerns about the interdependence of the natural gas and electric markets and their associated infrastructures. Because natural gas is generally delivered on a pipeline network rather than stored on site, it is important that we have an adequate pipeline network and operating practices that support the reliability of both electric and gas networks.

While increased gas-electric interdependence is a national trend, its impact is different in different regions of the country. In August 2012, FERC held five all-day technical conferences, with each focusing on a different region (Central, New England, Southeast, West, and Mid-Atlantic). At each conference we had strong participation from gas pipelines and distribution companies, electric generators, electric network operators, and state regulators. These conferences highlighted sharp differences among the regions in terms of the potential impact of this interdependence issue, largely driven

by geography, the existing pipeline network, the generation fuel mix, and the structure of the electric market.

I would like to highlight a few of the issues that were examined at the technical conferences. They fell into two basic categories: infrastructure and operations.

Infrastructure: The first issue is ensuring that we have enough pipeline capacity to support both the reliable operation of gas-fired electric generation and the needs of other gas customers: in other words, to ensure there is enough gas in the right places to operate the systems reliably. Importantly, the issue is not a gas supply issue (e.g., not a shortage of gas) but specifically a pipeline infrastructure issue, often of a regional nature.

Since deregulation of the natural gas system several decades ago, gas pipelines have been permitted by FERC and financed based on long-term firm commitments to buy pipeline capacity, usually made by local gas distribution companies, but also by generators in some regions. This system has worked well overall – over the last decade, FERC has issued permits for construction of nearly 10,000 miles of new pipeline. However, there is typically no requirement for gas generators that operate in competitive markets to enter into long-term firm gas pipeline contracts. Instead, those generators often rely on gas resold by entities with firm contracts, or on their own interruptible contracts. Therefore, despite the recent pipeline capacity improvements, there is often a disconnect between market price signals and the associated infrastructure that is necessary to support the gas resources in those markets, especially on a regional basis.

This problem is most acute during the heating season in regions with very high gas utilization, a limited supply of non-gas generators, and very constrained pipelines (e.g. New England).

At the technical conferences, we received a strong message that the need for infrastructure is a regional issue that requires regional solutions. That is what we are doing. The regions that operate competitive electric markets work under the jurisdiction of the Commission to ensure that their market operations support reliable electric supply. In particular, ISO New England, the regional operator in New England, is working on enhancements to its electricity markets to better ensure adequate supply of fuel for generation. FERC has already approved new market rules that allow ISO-New England to procure an increased amount of short-term reserves to better allow ISO NE to ensure reliability during periods of stressed system conditions.

Operations: The second issue is ensuring that the gas and electric networks are coordinated to optimize the use of the pipelines we have in place. Improved communication and coordination between the natural gas and electric markets can help maintain reliability at times when gas pipeline capacity is stressed. FERC held a day-long technical conference in February, 2013 focused on communications between gas and electric operators. Our goal was to identify what information should be exchanged to run the system as reliably as possible, and what challenges may be impeding that communication. We appreciated that there was a strong consensus on the need for situational awareness between the electric and gas network operators. However, there

was disagreement on the specifics of the information that should be exchanged, and under what circumstances. There were also concerns expressed by both pipelines and generators about the commercial sensitivities and corresponding liability for the use of this information. As a result, Commission staff at the technical conference offered guidance about permissible communications under current Commission regulations. We are actively considering whether additional steps are needed in order to further clarify these communication requirements..

An additional coordination issue involves improving the harmonization of schedules between the natural gas and electricity markets. The problem arises due to the fact that gas generators are challenged in managing fuel procurement risks because the timing of natural gas purchase and delivery arrangements is not synchronized with the timing for bidding electricity into the wholesale electric markets. Often, the best time to schedule gas shipments passes before gas-fired generators know whether they have been scheduled in the day-ahead electric market. Although there are additional opportunities to nominate gas later in the 24-hour gas nominating cycle, these periods typically involve smaller gas volumes. On April 25, FERC will host a technical conference to address how the market schedules for electricity and natural gas could be harmonized to provide the most efficient scheduling systems for both industries. As stated in the notice, the conference will consider whether changes should be made to provide additional scheduling flexibility, explore coordination of gas and electric scheduling, and what

options or enhancements would allow for more efficient use of existing infrastructure by both gas generators and other customers.

The issue of gas-electric interdependence is not a reason to panic, but it is definitely a reason to plan. At FERC, we closely monitor gas and electric market conditions through weekly reports. We have also required quarterly staff reports at FERC open meetings, including this Thursday, on the progress being made on these issues. In addition, we have required all regional market operators to report to FERC during an open meeting after each peak season to describe the challenges and lessons learned on gas-electric coordination, beginning with this May.

In closing, I would like to note that, viewed in larger perspective, this issue is a byproduct of an American success story: the growth of domestic natural gas resources. I lived through $10/MMBtu gas a decade ago, and on balance I would much rather be dealing with the problem that we are discussing today. The nation's generation fleet has historically experienced large turnovers, such as the changeover of generation from oil to coal after Arab oil embargoes ran up oil prices in the 1970s and the nuclear construction cycles of the 1970s and 1980s. Inevitably, there are adaptations needed to make the system work most efficiently. The gas-electric coordination issue is yet another example, and I am confident that asset owners, market operators, and regulators will adapt to maintain the reliable electricity and natural gas markets that we enjoy today. I will certainly be proactive in identifying how we can use the authority of FERC to support this adaptation. Thank you, and I would be happy to take your questions.