NARUC ENERGY REGULATORY PARTNERSHIP PROGRAM

Partnership between

The National Electricity Regulatory Commission of Ukraine

and

The New York State Public Service Commission

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Recent Regulatory Developments at NYS PSC– Chairman Brown

I have the distinct privilege of following Commissioner Rogozin with some brief remarks as to recent regulatory developments at the PSC and/or federal decisions impacting New York's utility customers.

As mentioned in my opening remarks, the PSC's primary mission is to serve the public interest in ensuring access to safe, secure, and reliable access to electric, gas, steam, telecommunications, and water services for New York State's residential and business consumers, at just and reasonable rates. In carrying out our mission, the PSC seeks public and interested party comments into proposed regulatory policies and rules.

Often times such proposals create tension amongst competing interests of the various stakeholders. Our regulatory policies become more complex when implementing federal regulatory requirements as noted in the few regulatory developments I'd like to share with you since the last partnership meeting.

FEDERAL REGULATORY DEVELOPMENTS 2012

Federal Siting of Transmission Lines

The siting of electric transmission facilities has historically been subject to the exclusive jurisdiction of the states. The states are better positioned to deal with such issues as retail ratemaking, the mitigation of local environmental impacts under state authority, the interconnection to distribution facilities, the siting of generation, or the participation by affected stakeholders in state and/or regional planning processes.

When the Energy Policy Act of 2005 (EPAct 2005) was enacted, the Federal Energy Regulatory Commission (FERC) was granted limited backstop siting authority. Siting may be pursued at FERC if: 1) the proposed project is in a previously U.S Department of Energy identified National Interest Electric Transmission Corridor; and, 2) a state has failed to act on a siting application or does not have the power to act. Currently there are no Corridor designations, so FERC has no authority to implement backstop siting at this time.

Cyber-Security Concerns

Another area of significant concern on the part of federal and state regulators is the threat of a computer attack directed against our utility infrastructure.

Cyber attacks may be undertaken to infiltrate the control systems which operate and maintain our most critical utility infrastructure which regulate our water and wastewater treatment and distribution, transmission and distribution of electricity and natural gas, and communication networks for the very purpose of causing disruption or harm to public health, public safety, government, and the economy.

The threat of cyber attack against control systems cannot be eliminated but actions can be taken to reduce the likelihood of successful attacks, to mitigate the harmful consequences of an attack, and to improve a utility's ability to improve system protection and restoration from future attacks, and thus enhance the resiliency of critical utility systems.

There have been recent efforts in the US Congress to enact legislation that would give greater authority to the federal government to impose measures on the corporate owners and operators of

America's critical infrastructure, including the electric power grid. Such legislation has met with resistance from those who insist that the companies themselves are in the best position to protect their networks, and that the focus should be on threat information sharing between the government and the private sector.

However, because electric power utility companies in the U.S. are fundamentally regulated at the state level, state public utility commissions regard good cyber security as a necessary practice for ensuring safe and reliable service. State regulators recognize the need for continued vigilance against all potential sources of cyber threat to be both prepared to prevent cyber attacks capable of disrupting utility services and to mitigate the harmful consequences of such attacks in order to protect public health, public safety, and the economy. We work closely with federal agencies to ensure that users, owners, and operators of the bulk-power system to comply with specific requirements to safeguard critical cyber assets.

Regional Planning

In a December 2010 FERC decision, for the first time costs of transmission facilities developed in another region would impact the ultimate price customers pay for electricity. In this case, a regional transmission owner received permission from FERC to involuntarily impose some of its facilities' replacement costs on neighboring public utilities, without any prior involvement of the other region in the planning process—which is a significant departure from past FERC cost allocation tariff provisions. This action is also counter to a principle contained in FERC Order 1000 which states that a region's participation in projects not sited within its region will be voluntary. FERC made this approval subject to refund, and the matter is currently the subject of litigation at FERC.

The PSC's preferred approach, consistent with Order 1000, would involve the preparation of an interregional planning study involving all affected regions (i.e. NYISO, PJM, MISO et al) to find an optimal solution that could garner the support of affected stakeholders. This approach would obviate contentious cost allocation disputes between regions, and endless filings before the FERC by utilities seeking to shift the costs of transmission facilities to other regions that purportedly receive benefits from those facilities.

FERC's "Bright-Line" Voltage Approach

FERC's November 2010 decision and subsequent compliance filing by the North American Electric Reliability Corporation (NERC) would require consumers to pay millions of dollars for utilities to meet FERC's proposed "bright-line" approach to defining all facilities operated at 100 kV and above, except defined radial facilities.

In the PSC's view and as demonstrated by technical studies, FERC's "bright-line" voltage approach encompasses various facilities that are not necessary for operating an interconnected electric energy network. FERC's approach would replace the "impact" based test currently used in the Northeast region of the country.

The PSC seeks to avoid an overly-broad and improper designation of facilities that could be costly to consumers with little to no commensurate reliability benefit.

Integration of Renewable Resources

Renewable energy is fundamentally changing the electricity industry's strategic landscape. Renewables are the fastest growing energy resource, and some projections indicate that by 2030, renewables could account for a larger portion of the electricity generated and delivered globally.

The growth of renewables poses three main challenges for the electricity industry: Enabling renewable generation technology options that are cost-competitive long term with other low-carbon forms of generation; maintaining electric grid reliability with high penetrations of variable wind and solar energy; and understanding and minimizing environmental impacts of renewable energy resources on a large scale.

Additional transmission infrastructure will likely be required to move power from areas in which renewable resources are concentrated to the load centers. Also, transmission system operations are reducing the overall variability by aggregating and averaging local variable generation over large geographic areas.

It will also be necessary to increase the flexibility of the power system to respond to more variability and uncertainty as renewable implementation levels rise. The potential exists for this flexibility to come from both conventional generation and new sources such as controlled smart

charging of electric vehicles, energy storage technologies, such as flywheels, compressed air storage, and utility-sized batteries, and additional system coordination.

Wind and solar generation resources themselves are starting to provide flexibility, including the capability to limit ramp rates, voltage control and curtail output when needed.

NYC Installed Capacity Costs

A recent FERC decision has garnered tremendous attention in New York. FERC has ordered the NYISO to redo its buy-side mitigation tests for two recent new entrants in New York City, Astoria Energy 2 and Bayonne Energy Center. The two units have been participating in the New York City Capacity market since they began operating (AE2 in Summer 2011, and Bayonne Summer 2012), and were granted a buy-side mitigation exemption by the NYISO before they entered the market. FERC also ordered the NYISO to change many of its assumptions in the initial exemption test, a change that may likely lead to Astoria Energy 2 to fail the mitigation exemption test. These important changes to the NYISO's assumptions may lead to Astoria Energy 2 failing to clear the capacity market and a resulting increase in capacity costs.

STATE REGULATORY DEVELOPMENTS

Smart Grid

In August of 2011, the PSC released its Smart Grid Policy Statement which laid out what regulatory policies are needed to encourage the development of the smart grid and the overall modernization of New York's electric grid.

Passage of the American Recovery and Reinvestment Act (ARRA) in 2009 offered a unique opportunity for utilities to leverage federal dollars to accelerate modernization and technological enhancement of the transmission and distribution grid—or a "smart grid." Under a competitive grant process, several New York projects totaling approximately $256 million were approved for federal funding under ARRA's Smart Grid Program.

To further New York's critically important modernization effort, the PSC commenced a proceeding in July 2011, wherein, the Commission solicited input from the public and industry as to how best shape and build the electric grid of the future.

In addition to the comments from traditional utilities, the Commission was eager to hear from electric utilities, telecommunication companies, computer software and hardware providers, internet developers, consumer advocates and other interested parties as it moved forward with developing its smart grid road map.

The PSC's proceeding was used to evaluate approaches to grid modernization that support important State energy policy goals—ensuring and enhancing electric system reliability; reducing greenhouse gas emissions; increasing energy efficiency and demand response; expanding the use of renewable energy sources and storage options; reducing the frequency and duration of power interruptions; and providing the ability for consumers to better manage their energy bills.

Also during the course of the proceeding, the Commission sought input from a myriad of stakeholders concerning complex issues for developing a cost-effective and customer-friendly smart grid. Questions raised by the Commission for response included, among others:

- Pace or timing for deployment of smart grid technology and replacement of aging electric delivery infrastructure;
- interoperability of smart grid devices and systems;
- cyber security strategy and requirements;
- cost-benefits analysis;
- customer data privacy and access matters; and
- consumer education.

The PSC has been very thoughtful and deliberate in this proceeding as it sought to decide how to invest ratepayer money in the smart grid over the next decade. If done smartly, with a close eye toward future possibilities, modernization will help utilities streamline and mange their operations while empowering consumers with a far-greater ability to control electricity consumption and costs—clearly a "win, win" situation for all parties.

Electric Vehicles

Most of the world's major auto manufacturers are developing plug-in electric vehicles. As gasoline powered vehicles are being replaced by electric powered versions, some quantity of energy that had been delivered to the previous vehicle as gasoline will now need to be delivered to the new one via the electric grid.

To prevent collapse of the electric grid during peak load demand periods, we need to be smart about when we recharge electric cars. The charging pattern of plug-in vehicles will need to be managed effectively so that it occurs during off-peak hours.

To facilitate off-peak recharging of plug-in electric vehicle, the PSC is re-examining rate designs, including night rates, time-of-use rates and Smart Grid/Advanced Metering initiatives to avoid the need for increased generation capacity in the long term.

We are in the process of learning more about electric vehicles and how their introduction may affect utility systems; what regulatory policies and programs may be needed to address the implications associated with the deployment of electric vehicles; as well as, what are the auto industry's plans nationally and with respect to New York.

Energy Efficiency Initiative

The energy efficiency programs approved by the Public Service Commission and overseen by the Department of Public Service remain critically important for the state's energy future. Cost effective energy efficiency is often the least cost, and most immediate, way to reduce the burden of rising energy costs and residential and business customers. A year ago the PSC reauthorized the state's Energy Efficiency Portfolio Standard (EEPS) initiative, a major step to ensure New York continues to provide energy efficiency funding incentives to residential, commercial and industrial customers. The EEPS program is designed to reduce consumption of electricity and natural gas, while spurring creation of the infrastructure to support the creation of energy efficiency-related jobs.

Under the EEPS, the Commission's long-term goal is to reduce electric usage 15 percent of projected levels by 2015, with similar reductions in natural gas usage, making EEPS one of the most aggressive efficiency initiatives in the nation. The Commission authorized $2.26 billion in

funding through 2015 for electric energy efficiency programs which are expected to reduce statewide electricity usage by 10,867 GWh. To date, the Commission has approved 118 individual programs of the 160 EEPS programs submitted. Of the 118 EEPS programs, 106 programs are reporting energy savings.

Shale Gas Issues

Despite being one of the most mature natural gas and oil producing areas in the world, New York's future hydrocarbon potential remains bright. New York produced 55 billion cubic feet of natural gas in 2005; an 18 percent increase over 2004, exceeding the previous record set in 1937. New York's natural gas production in 2005 represented a three-fold increase over the mid 1990s. However, since that time, natural gas production has fallen off as wells drilled in the Trenton-Black River formation using traditional vertical drilling have become less productive.

The recent development of new hydro fracturing technologies including horizontal drilling has the potential to unlock significant quantities of natural gas now trapped in shale across broad swaths of upstate New York. This new drilling process, however, potentially has significant environmental impacts; as a result, it is being closed examined by environmental agencies.

If the use of hydro-fracturing is allowed to occur, the PSC will be actively involved in the siting of natural gas gathering pipelines.

Vegetation Management

The PSC has for years staffed and overseen a robust regulatory program in the area of transmission right-of-way (ROW) vegetation management. As a result of the 2003 Northeast blackout the Commission instituted a proceeding to strengthen New York's regulation of electric transmission ROW. In April of 2010 the Commission initiated a proceeding to consider and refine New York electric utility transmission ROW management practices and to bolster the Commission's rules regarding such practices. The Commission noted that reliability problems are commonly manifested when contact occurs between a tree and a transmission line during, for example, a storm which causes a fault in the transmission circuit which many cause widespread electric system outages. The Commission considers effective right-of-way management by utilities an essential component of electric system reliability.

The Commission's existing policies regarding ROW management establishes requirements for utilities' ROW maintenance programs, ensures adequate record keeping, and reporting by the utilities. In addition, the federal Energy Policy Act resulted in the development and implementation of additional mandatory and enforceable reliability standards for utility transmission ROW maintenance through the North American Electric Reliability Corporation.

Members of the public and elected officials expressed concerns to the Commission with respect to the ROW vegetation management practices for trimming and removal of trees and other vegetation used by utilities to implement the federal and state regulatory requirements along their transmission rights-of-way. Those objecting to the utilities' practices cited the unwanted aesthetic impacts associated with the utilities' ROW work, as well as noise, soil erosion and decreased property value as potential results.

After careful consideration of the comments received by various interested parties in the proceeding noted above, the PSC adopted eight recommendations to improve ROW management practices in the State including, among others, individual written notification to all easement encumbered and abutting landowners, local municipal elected officials, and affected state agencies at least 30 days prior to commencement of vegetation management work in the more densely populated downstate regions. This latest set of recommendations makes New York one of the most progressive States in the country in the area of transmission vegetation management.

Site Investigation and Remediation (SIR)

In February 2011, the PSC commenced a proceeding to review and evaluate how electric and natural gas utilities were recovering costs and the utilities' cost control incentives related to ongoing environmental cleanup of polluted sites left over from the conversion of coal into gas which was then used to heat and light street, homes and businesses during the 1800s and early 1900s.

The NYS Department of Environmental Conservation (DEC) has to date identified 221 manufactured gas plant (MGP) sites across New York State. The investigation and clean-up of those sites is being addressed by the utility companies that either operated the plants or acquired responsibility of the sites from predecessor companies. The estimated cost of the cleanup is more than $2 billion, a cost which currently would be borne by ratepayers.

To address concerns about rising costs of these remediation efforts, the PSC in its proceeding asked utilities and all other parties to help develop a comprehensive record as to the current and future scope of the utility remediation programs in New York State, the current cost controls utilized by the utilities and opportunities to improve such controls, the appropriate allocation of responsibility for such costs, and methods to recover costs determined to be appropriately borne by ratepayers in a way that minimizes their impact.

After a period of information gathering, the Department of Public Service Staff issued a White Paper in June 2011. The following month, a technical conference was held where parties presented arguments and additional information was put on the record. Initial and reply comments to Staff's White Paper were filed, and then the Administrative Law Judge issued a Recommended Decision in November 2011.

The Recommended Decision advised against cost-sharing between ratepayers and shareholders, and instead recommended that the PSC adopt annual reporting requirements, independent audits, the compilation and ongoing development of "best practices" related to MGP remediation, and a rebuttable presumption that bill impacts not exceed 3% of delivery bills. Briefs on Exception and Reply Briefs on Exception were then filed by parties in the case. The PSC has not yet made a determination in this matter.

Consumer Issues

Retail Energy Markets

As a result of the restructuring of the energy industry in New York more than a decade ago, today all customers of major electric and natural gas utilities in New York State have the choice of whether to purchase energy from their utility or from an energy services company (ESCO). Approximately 85 ESCOs are certified to provide electricity and over 100 to provide natural gas service in New York. The competitive retail market also offers customers the opportunity to purchase value added services which, in most cases, the customer's utility does not offer.

Commission staff is reviewing the performance of the retail energy markets to determine if they are functioning as intended and to identify opportunities for improvement. So far, staff has found that overall retail competition appears to be attractive to large commercial customers; however, for residential and small commercial customers, several concerns have been identified.

For instance, a broad range of value-added services provided by ESCOs have not developed as expected, and the vast majority of ESCO offerings involve variable priced products with no value added services. In addition, staff found that it is difficult for most customers to know and compare prices for commodity services available from the utility and ESCOs, making it difficult for customers to determine savings. Staff compared the bills charged to ESCO customers with what would have been charged by the utility, and determined that in most cases, residential and small commercial ESCO customers paid more. To address these concerns, the PSC instituted a proceeding to investigate the operation of the retail energy markets for residential and small commercial customers, and to obtain input on how to improve the operation of the market.

Submetering

Earlier this year, the PSC solicited comments on revised regulations governing residential electric submetering, a system that allows a landlord, property management firm, condominium association, homeowners association, or other multi-tenant property owner to bill tenants for individual measured electric usage. Submetering regulations were last revised in 1988.

The Commission has long favored metering of individual dwelling units to promote energy efficiency and equity. Tenants in master-metered buildings that are not submetered do not pay for electricity based on actual usage in their apartment, but instead, average electric charges are included as part of their rent. As a result, tenants using relatively small amounts of electricity could pay more for the electricity while also subsidizing those using larger amounts of electricity. With metering of individual dwelling units, electricity consumers pay bills based on their actual usage, which provides an incentive for the efficient use of electricity, provides a tool for consumers to manage their energy bills, and further the State's energy efficiency goals.

This proceeding is addressing several complicated issues, including those which involve a careful balancing of our energy efficiency and consumer protection goals.

Low Income Initiatives

In the last several years, the Commission has enhanced the funding available for programs to assist low income customers. Since the end of 2009, funding for utility programs that provide discounts for low income customers has increased by approximately 60%, to $104 million. In

addition, in 2011, the Commission increased funding for energy efficiency programs for low income customers by $18.7 million, meaning that some $75 million annually is now directed toward low-income electric and natural gas programs statewide.

At this juncture I'd like to open up our meeting to anyone who may have questions concerning any of the federal or state regulatory developments that I have briefly summarized for you.