Gas-Electric Coordination
Quarterly Report to the Commission

Docket No. AD12-12-000
September 19, 2013

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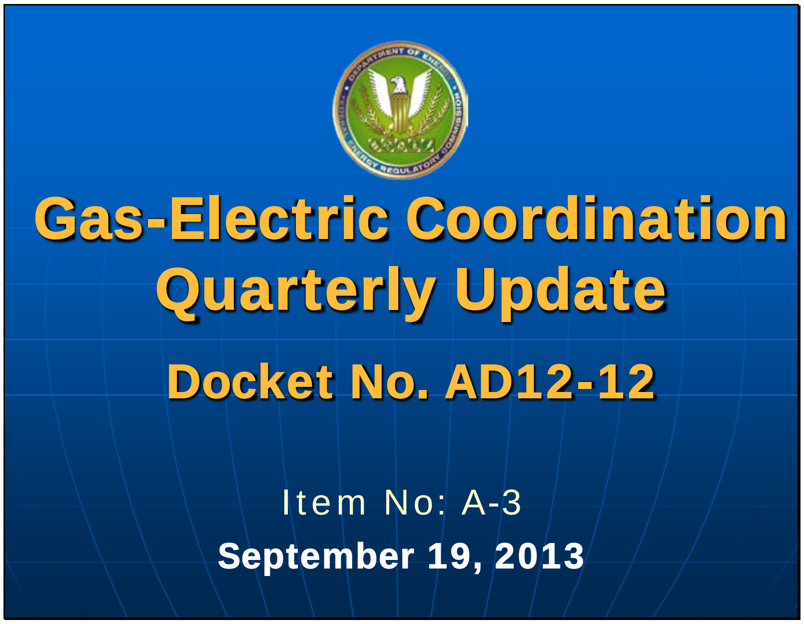
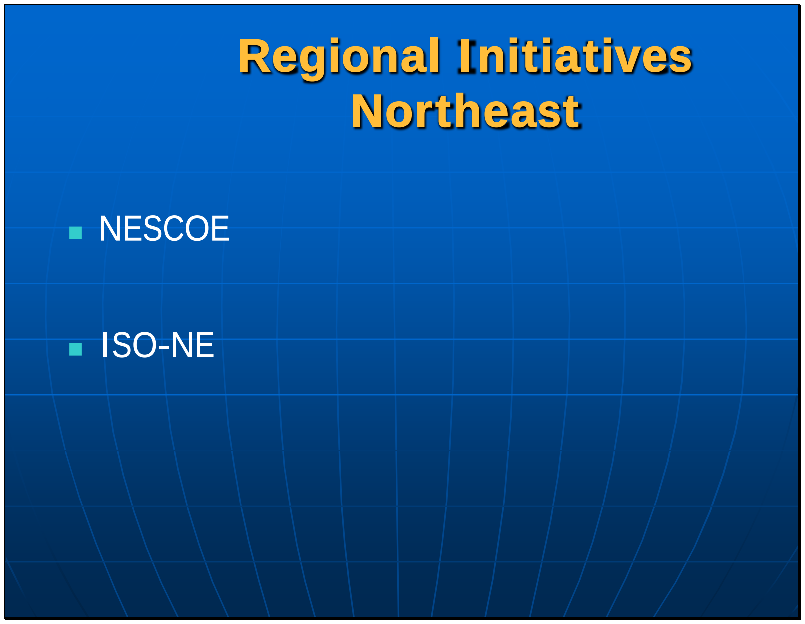


This presentation is Commission staff's third Quarterly Update on Gas-Electric Coordination Activities, as directed by the Commission in its November 15, 2012 order in Docket No. AD12-12, and covers the period June 2013 to August 2013.

National trade organizations or their members continue to discuss gas-electric coordination with the RTOs and ISOs. Many of the trade associations' individual members continue to also be involved in regional gas-electric working group efforts and regional studies. This report focuses on significant new developments in several regional initiatives that have occurred since our last report, and briefly summarizes Commission initiatives as well as recent industry applications filed with the Commission.



The following slides provide an update on developments in several regional gas-electric coordination initiatives since our last report, and are based on staff outreach and monitoring of the regional gas-electric coordination task force meetings.

We start with New England. According to recent discussions of the New England States Committee on Electricity (NESCOE) Gas-Electric Focus Group, the group has largely accomplished its initial objectives of information exchange and discussion of potential short-term solutions to supply reliability concerns as originally set forth in their Path Forward document. With a short-term winter plan as set forth in ISO-NE's Winter Reliability plan, which is currently pending before the Commission, NESCOE will now focus on medium to long-term plans. Going forward, the Focus Group will meet as issues warrant, rather than on a monthly basis; it plans to convene in October to discuss additional results from Phase III of a multi-phase New England pipeline capacity study being conducted by Black & Veatch. As we noted in our last quarterly report, Phase II of that study reviewed historical natural gas demand, provided an outlook for growth of natural gas by sector over the next 15 years, and estimated costs for infrastructure options. The recently finalized Phase III recommends a short-term strategy that includes immediate deployment of dual-fuel generation, demand response measures, and the seasonal purchase of LNG cargoes. In the long-term, a cross-regional natural gas pipeline solution is recommended, which will provide twice the net benefits to New England consumers than would be contributed by the firm-based Canadian energy imports solution.

ISO-NE continues to consider and file with the Commission changes to its market rules and tariff to address gas-electric issues.

Turning to the Mid-Atlantic, progress continues on the Eastern Interconnection Planning Collaborative (EIPC) Study involving ISO-NE, NYISO, PJM, MISO, Ontario IESO and TVA. This study is a multi-regional natural gas/electric analysis of major interstate, intrastate, and local natural gas infrastructure serving the Eastern Interconnection. Many members of INGAA, NGSA, and AGA continue to be involved in the study with PJM leading the study as the principal investigator.

As noted in the last quarterly report, the primary objectives of the study are to develop a baseline of the electric and natural gas systems; evaluate the adequacy of the regional gas systems to supply gas-fired generation needs over a 5-10-year horizon; identify contingencies on the natural gas system that could adversely affect the electric system and vice versa; and review the benefits and costs of dual-fuel capability compared with securing firm gas transportation. A detailed scope of work for the study along with the final request for proposals was issued on August 2 with bids due August 30. Final work is scheduled to be completed by May 2015. A meeting of the stakeholder steering committee is scheduled for October 29-30 in Washington, D.C.

In addition to leading the EIPC study efforts, PJM continues to conduct meetings through its Gas Electric Senior Task Force. In upcoming monthly meetings, the Task Force will focus on discussing and prioritizing gas electric issues.

The Eastern Interconnection States' Planning Council (EISPC) conducted roundtable discussions in August with Commissioner Moeller, national electric and natural gas industry associations as well as end-user associations participating. The purpose was to elicit from participants the gas-electric issues, concerns, and potential solutions that could then be considered by the collaborative and study consultants as they begin the long-term Electric and Natural Gas Infrastructure Requirements Study and Whitepaper. The Study is intended to produce a long-term analysis of the potential electric and natural gas infrastructure requirements in the Eastern Interconnection for the 2011-2030 timeframe under three build-out scenarios. The Whitepaper is intended to provide additional focus on natural gas and electric system operations and market structure; address issues such as contracting, planning, regulatory, and confidentiality procedures; and provide recommendations on potential payment options and future actions to improve the coordination between the electric system and the natural gas system. The Study and the Whitepaper are expected to be completed in June 2014.

NYISO staff continues to hold regular meetings of the Electric-Gas Coordination Working Group to foster discussion of gas-electric issues. At the June meeting, the final Task 1, and preliminary Task 2 findings of the Levitan & Associates Fuel Assurance Study were presented. Task 1 of the Study examined the relative cost and benefit of providing fuel assurance through dual-fuel capability against incremental cost of obtaining firm transportation entitlement from a liquid sourcing point to the delivery points of a gas-fired generator. Task 2 goes into further detail regarding grid security, analyzing historical pipeline congestion patterns across the New York Control Area, assessing the impact of new pipeline additions on transport deliverability over a five-year study horizon into and across New York, and identifying potentially disruptive gas system contingencies across the supply chain from the producing area to the NYISO market center.

In the Midwest, MISO's Electric and Natural Gas Coordination Task Force continued to meet monthly. At its August meeting, the preliminary results of Phase III of the MISO Gas-Electric Interdependency Analysis were presented. Phase III assessed the ability of natural gas infrastructure in the MISO footprint to serve growing demand; and identified current and potential areas of pipeline congestion and changing flow patterns and development trends. The results showed that recent pipeline capacity additions have contributed to a decrease in the number of days in which capacity would have been unavailable for the majority of the MISO-region pipelines. The results also suggested natural gas supply diversity is expected to increase in the region. Final results are expected to be presented at the September 15, 2013 Task Force meeting.

MISO is also working on a number of whitepapers. For example, MISO stakeholders are in the process of finalizing a paper that addresses the potential misalignment of gas and electric schedules. A paper on resource adequacy paper will be revised following stakeholder feedback and finalized in September. Additionally, a paper on coordinated operations remains under development. It is expected that this paper will recommend various communication enhancements and operational awareness improvements, and identify key data to be shared between the gas and electric industries. The Task Force is also working on a paper that will examine adjustments to the energy and capacity markets to provide market signals to incentivize generators to secure an appropriate amount of firm gas supply and transportation.

Turning to SPP, the Gas-Electric Coordination Task Force conducted a natural gas-fired generator survey, held training sessions with gas pipeline and marketer personnel, and implemented a visual pipeline mapping tool. The Task Force is now working on developing its proposed work plan to be presented at its September 6 meeting, and is in discussions regarding a potential study for its region similar to the EIPC study described earlier in this report.

ERCOT continued regional coordination efforts and participated in a Texas Energy Reliability Council (TERC) conference call on July 10. Main topics of the call included gas storage status, summer electric generation needs affecting gas demand and any planned pipeline maintenance that might affect delivery. No problems with gas delivery to electric generation during the summer season were noted. ERCOT continued working with gas pipeline companies to determine the electric supply needs of gas facilities critical to providing fuel to black start and next start generating units. According to ERCOT, these needs will be integrated into its black start restoration plan for 2014-2015 (described in staff's second quarterly report). ERCOT is also working to finalize a Non-Disclosure Agreement that is reported to allow the cross industry sharing of protected or confidential gas infrastructure information from gas pipelines and suppliers and detailed electric infrastructure information from ERCOT, transmission and distribution companies, and black start resources.

The West has a number of sub-regional natural gas-electric coordination initiatives.

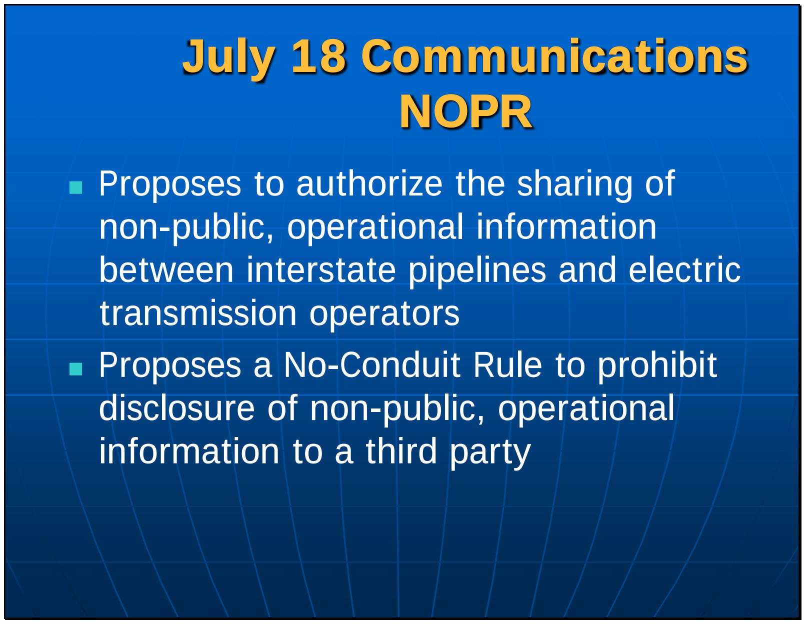
In the Pacific Northwest, natural gas pipelines and electric utilities continue to discuss enhanced communications and coordination through the Pacific Northwest Utilities Conference Committee (PNUCC) Power and Natural Gas Planning Task Force. The Western Gas-Electric Regional Assessment Task Force issued an RFP for its Western Natural Gas – Electric and System Flexibility Assessment. Phase I of the study will explore adequacy of the natural gas infrastructure to meet the long-term (10 years) needs of the electric industry in the Western Interconnection. Phase II will drill down on short-term adequacy of natural gas operational flexibility to meet the Western Interconnection's operational flexibility needs with increasing integration of renewables. All of the gas supply and transportation modeling work in Phase II will be performed by the pipeline companies. The two-phase study will be led by the Technical Advisory Group (TAG) with representation from industry, regulators, and others engaged in examining the interface of the gas and electric sectors in the Western Interconnection. The selection of contractors to conduct the study was made on September 6. The initial study results are expected to be completed in a 9-month period, three months dedicated to Phase I and six to Phase II, with final results due at the end of 2014.

The PNUCC Power & Natural Gas Planning Taskforce is exploring a second phase I-5 Corridor study based on the initial ColumbiaGrid Gas-Electric Interdependencies Study. The initial study generally concluded that the current infrastructure is adequate to meet current daily gas demand. Based on hourly gas demand, the second phase of the study will explore how the system would respond to increased natural gas generation sited in the I-5 corridor, and whether the system would be able to handle large swings driven by gas demand from power plants and direct service companies. The Task Force hopes to begin the analysis by its October meeting.

The California ISO continued with similar work as reported in prior quarters.

The Desert Southwest Task Force continued to evaluate and narrow potential solutions for addressing reliability, market, and long-term capacity needs. Key discussions have focused on whether to: (1) remove the no-bump rule related to scheduling interruptible service on pipelines; (2) maintain the timing of existing pipeline nomination opportunities to schedule transportation, but move the Intra-Day

2 nomination cycle for natural gas transportation later in the day and add a no-bump nomination cycle; (3) offer additional Intra-day nomination cycles; (4) move the start of a gas day; and (5) have a new daily transportation service reserved for gas-fired power plants providing ancillary services/contingency reserves.



The Commission, on July 18, issued proposed rules to address information sharing and communications issues between the natural gas and electric industries. These proposed rules built on the discussions and information learned from conferences and comments filed with the Commission following the February 13 technical conference.

In brief, the proposed rule would revise regulations to authorize expressly the sharing of non-public operational information between the interstate natural gas pipelines and electric transmission operators – not just during emergencies but also for day-to-day operations, planned outages, and scheduled maintenance. It would also adopt a No-Conduit Rule to prohibit recipients of non-public operational information from subsequently disclosing, or using anyone as a conduit for the subsequent disclosure of that information to a third party.

The Commission received 33 comments in response to the proposed rule.

Relevant Natural Gas Filings

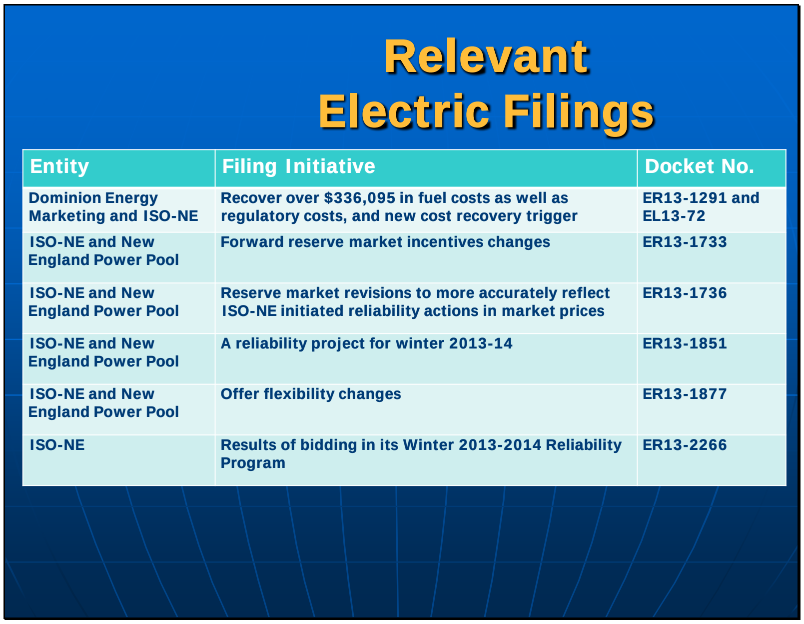
Region	Pipeline	Capacity/Initiative	Docket No.
Mid-Atlantic	Eastern Shore Natural Gas Company	Capacity expansion ~55,200 Dth/d	CP13-498
Southeast	Transcontinental Gas Pipe Line Company	Capacity expansion ~225,000 Dth/d	CP13-523
Southeast	Gulf South Pipeline Company & Petal Gas Storage	Alternative No-Notice Service	RP13-1245-000 & CP13-532-000

Our last area to cover is applications that have been filed with the Commission. During the third quarter, the Commission received two applications to expand pipeline capacity serving electric generation and one application to increase operational flexibility.

Eastern Shore Natural Gas Company filed on June 13, 2013 a proposal to build a 5.5-mile pipeline lateral to transport 55,200 Dth per day for Calpine Energy Services, LP for use in the Garrison Energy Center, a proposed 309-MW combined cycle power plant under development by a subsidiary of the Calpine Corporation (Docket No. CP13-498-000). This matter is pending before the Commission.

Transcontinental Gas Pipe Line Company's Mobile Bay South III Expansion Project filed on July 18, 2013, proposes to add 225,000 Dth per day of firm transportation capacity (Docket No. CP13-523-000). This will indirectly serve power generation because the two anchor shippers on the project are Southern Company Services, Inc. and PowerSouth Energy Cooperative; both operate a substantial portion of gas-fired generation in the Southeast and Florida. This matter is pending before the Commission.

On August 13, 2013 Gulf South Pipeline Company, LP (Gulf South), filed tariff records proposing a new Alternative No-Notice Service (NNS-A) designed to meet the requirements of local distribution companies, electric generation markets, and other customers that desire a flexible no-notice service (Docket No. RP13-1245-000). Gulf South states that the storage component of its proposed NNS-A will be provided utilizing firm storage capacity acquired through a lease of storage capacity from Petal Gas Storage, L.L.C. (Petal) located in Mississippi, for which a joint certificate application was filed by Gulf South and Petal (Docket No. CP13-532-000). In that docket, the applicants seek an order from the Commission authorizing Petal to abandon by lease to Gulf South a Maximum Storage Quantity of 1,000,000 Dth, a Maximum Daily Withdrawal Quantity of 50,000 Dth per day, and a Maximum Daily Injection Quantity of 25,000 Dth per day to support Gulf South's proposed NNS-A. This matter is pending before the Commission.



Relevant Electric Filings

Entity	Filing Initiative	Docket No.
Dominion Energy Marketing and ISO-NE	Recover over $336,095 in fuel costs as well as regulatory costs, and new cost recovery trigger	ER13-1291 and EL13-72
ISO-NE and New England Power Pool	Forward reserve market incentives changes	ER13-1733
ISO-NE and New England Power Pool	Reserve market revisions to more accurately reflect ISO-NE initiated reliability actions in market prices	ER13-1736
ISO-NE and New England Power Pool	A reliability project for winter 2013-14	ER13-1851
ISO-NE and New England Power Pool	Offer flexibility changes	ER13-1877
ISO-NE	Results of bidding in its Winter 2013-2014 Reliability Program	ER13-2266

Recent filings made by the electric industry to address increasing reliance on natural gas-fired generators as well as previously-reported filings that have been the subject of recent Commission action are highlighted on this slide.

On April 15, 2013, Dominion Energy Marketing, Inc. (Dominion) filed a request under Section 205 of the Federal Power Act seeking recovery of $336,095 in fuel costs (and for regulatory costs) for its Manchester Street Station Units under ISO-NE's Constrained Area Mitigation and Reliability Commitment Mitigation processes. The Commission issued an order on June 14, 2013 granting Dominion's request, subject to a compliance filing detailing the actual regulatory costs (June 14 Order). The June 14 Order also directed ISO-NE to revise its tariff to provide a mechanism for future recovery of similar costs. On August 13, 2013, ISO-NE filed revisions to Appendix A of its tariff to include a non-market opportunity for market participants to request additional cost recovery. On August 16, 2013, Dominion filed actual regulatory expenses incurred, in response to the June 14 Order. ISO-NE's compliance filing, and Dominion's request for rehearing and compliance filing are pending before the Commission. (Docket Nos. ER13-1291-000 and EL13-72)

On June 20, 2013, ISO New England Inc. and New England Power Pool Participants Committee (ISO-NE and NEPOOL) filed market rule changes to adjust the Forward Reserve Failure-to-Reserve Penalty to better incent appropriate performance by reserve resources; if approved, these changes would be implemented in October 2013. (Docket No. ER13-1733-000) ISO-NE and NEPOOL state that the current penalty structure, at times, provides incentives for resources to self-schedule rather than follow dispatch instructions to provide reserves. On August 15, 2013, the proposal was accepted for filing by delegated order, effective October 1, 2013.

On June 20, 2013, ISO-NE and NEPOOL submitted a filing to better reflect the cost of actions that the ISO takes to maintain system reliability in market prices by establishing a replacement reserve requirement to procure additional reserves and establishing a Reserve Constraint Penalty Factor (RCPF) at $250/MWh, a price cap for real-time reserve clearing prices. On August 15, 2013, the proposal was accepted for filing by delegated order, effective October 1, 2013. (Docket No. ER13-1736-000)

On June 28, 2013, ISO-NE and NEPOOL filed a proposal to acquire "oil inventory" services from oil-fired and dual-fuel generators to mitigate risk to the electric system from natural gas supply problems during Winter 2013-2014 (Winter Reliability Program) (Docket No. ER13-1851). Under this proposal, oil-fired and dual-fuel generators would establish a specified amount of oil inventory for the winter in exchange for an "as bid" monthly payment to provide energy in case of a reliability event. ISO-NE would also procure demand response services under the Winter Reliability Program. On August 9, 2013, the Filing Parties filed amendments to the Winter Reliability Program to encourage increased participation by oil-fired generators. This matter is pending before the Commission.

On July 1, 2013, ISO-NE and NEPOOL submitted a filing proposing tariff changes to allow market participants to change their energy market offers in real-time during the operating day (Docket No. ER13-1877). If approved, these changes would be implemented in December 2014. Currently, participants are permitted to modify their supply offers in the day-head market only once, between 1:30 pm and 2:00 pm. ISO-NE and NEPOOL argue that the re-offer changes they propose will improve market participant's abilities to reflect the cost of obtaining fuel in their energy market offers, and allow real-time energy prices to more accurately reflect the marginal cost of energy. This matter is pending before the Commission.

On August 26, 2013, ISO-NE submitted the results of bidding in its Winter 2013-2014 Reliability Program, including information regarding the bidders that ISO-NE proposes to select to provide demand response and oil inventory services under Appendix K of its tariff (Docket No. ER13-2266). ISO-NE states that it targeted a procurement of demand response and oil inventory services of 2.4 million MWh (4.2 million barrels of oil) and received bids amounting to 2.29 million MWh, or 96% of its target, at a total price of $114.3 million. ISO-NE proposes to accept 1.995 million MWh, or 83.1% of its targeted MWh at a price of $78.8 million. This matter is pending before the Commission.

Staff's next quarterly report is due in December. Staff will continue regular outreach with national and regional entities and with regulated entities regarding their efforts on gas-electric coordination.