



Gas-Electric Coordination Quarterly Report to the Commission

Docket No. AD12-12-000
March 20, 2014

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Gas-Electric Coordination Quarterly Update

Docket No. AD12-12

March 20, 2014

This presentation is Commission staff's fifth quarterly update on national and regional Gas-Electric Coordination Activities, as directed by the Commission in its November 15, 2012 order in Docket No. AD12-12. This report covers the period January 2014 through March 2014.

This report focuses on significant new national and regional developments since the last presentation in December 2013, briefly notes Commission initiatives, and highlights recent industry applications filed with the Commission and tariff revisions submitted in response to Order No. 787, which expressly authorizes the sharing of non-public operational information between interstate natural gas and electric transmission operators. This report also highlights the gas-electric coordination activities undertaken in response to the 2013-2014 winter weather events.

National and Inter-regional Initiatives

- Natural Gas Council Gas Day Initiative
- EIPC
- EISPC

During this first quarter of 2014, the Natural Gas Council (NGC) continued work on its Gas Day Initiative. Having achieved consensus within the Council in late December, 2013 on what it characterizes as its straw proposal of gas scheduling changes, NGC then initiated a dialogue with electric stakeholders. We understand that electric industry stakeholders are currently discussing the NGC proposal and are working to craft responses to the NGC.

In February 2014, Levitan & Associates issued a draft report addressing the first Target of the multi-regional Eastern Interconnection Planning Collaborative (EIPC) Study involving ISO-NE, NYISO, PJM, MISO, Ontario IESO and TVA. As discussed in detail further below, Target 1 establishes a baseline of existing natural gas and electric system interfaces for the Eastern Interconnection footprint. As noted in a prior staff report, Target 2 of the EIPC Study will evaluate infrastructure adequacy using natural gas and electric simulation models to explore a 5 or 10 year time horizon. Target 3 will include a contingency analysis and Target 4 will explore dual-fuel capability.

With regard to the Target 1 draft report, it:

- develops a baseline assessment that includes detailed mapping and descriptions of the natural gas-electric system interfaces and how pipeline, storage and Local Distribution Companies (LDC) infrastructure impact each other;
- identifies the specific drivers of the pipeline/LDC planning processes affecting the availability and operational risks borne by gas-fired generators across the Study Region;
- evaluates the current level of operational and planning interaction between the bulk electric and natural gas systems; and,

- assesses the regulatory, commercial, and operational attributes of the gas infrastructure-electric interfaces affecting the performance of gas-fired generation.

In addition to the above, the draft report emphasizes the delineation of restrictive pipeline and LDC tariff provisions that limit power plant scheduling flexibility, provide for imposition of penalties, and influence generation company contracting norms.

The report also provides detailed information on existing natural gas infrastructure, the variations in electric generation business arrangements in obtaining gas transportation, and their interrelation with the electric industry. The draft report finds that 47% of the generation in the study region is served by LDCs, and describes the location of generation with dual-fuel capability, as well as generator contracting trends. With respect to the generator contracting trend, Levitan & Associates found that while some generators rely on LDCs in part or in full for a bundled gas supply delivered to the plant, the common procurement practice for generators is to rely on third party marketers or asset managers to obtain natural gas delivered to the citygate or the meter. The report notes that over the past two decades a significant number of recent combined-cycle plants and peaking generators have been built behind citygates. The report also notes that except for Ontario and downstate New York, the majority of new gas-fired added capacity is directly connected to interstate pipelines. Finally, as is the case with firm transportation contracts, generators typically do not hold firm storage entitlements in their own name, although they can contract with marketers for products that include storage. The Target 1 Report is expected to be finalized and posted on April 1, 2014 on the Gas-Electric Documents page of the EIPC website.

As previously reported, progress continues on the Eastern Interconnection States' Planning Council (EISPC)-commissioned ICF-led long-term Natural Gas/Electric Infrastructure Requirements Study that will analyze co-optimization of both the natural gas and electric systems for long-term infrastructure requirements. The final results are to be completed by Summer 2014. In January, ICF presented the "The ABCs of Natural Gas" to EISPC in a continued effort to bridge the knowledge gap.

Regional Initiatives Northeast & Mid-Atlantic

- Northeast
 - NESCOE
 - ISO-NE
- Mid-Atlantic
 - NYISO
 - PJM

Turning to regional initiatives, we start with the Northeast and Mid-Atlantic.

In 2013, the New England States Committee on Electricity (NESCOE) Gas-Electric Focus Group completed its intended infrastructure studies and is in the process of finalizing its Focus Group report on the findings and recommendations collected through commissioned studies. NESCOE met in February 2014, to discuss the final steps for its Focus Group report, necessary revisions to NESCOE's mission and further meetings, and industry responses to NESCOE's January 27, 2014 memorandum seeking additional data or analyses regarding how much additional pipeline capacity is needed in New England to address the region's pressing electric market challenges. Members of the New England Natural Gas Industry concluded that New England will need more pipeline capacity in order to fully realize the reliability and other benefits of natural gas as a primary fuel source for generation, however, did not make a recommendation on an optimal level of new pipeline capacity for the power sector.

Since January, NESCOE, in cooperation with ISO-NE and stakeholders such as the New England Power Pool (NEPOOL), has begun furthering the common interests of the six New England Governors who expressed their collective commitment to regional cooperation on energy infrastructure issues in their December 2013 statement. NESCOE requested ISO-NE's technical assistance in developing a tariff proposal for the recovery of the cost of firm natural gas pipeline capacity to support the construction of new, or the expansion of existing, pipelines. In support of the Governors' energy infrastructure initiative, NESCOE is seeking a total of 1000 MMcfd above 2013 levels or, 600 MMcfd beyond what has already been announced for existing expansion projects to be available no later than the winter of 2017/18 for the stated benefit of electricity

customers in the ISO-NE market. NESCOE specified that the additional capacity should be capable of delivering natural gas from one or more of the hubs in the Northeast at the Ramapo [New York], Wright [New York] or similar facility at prices reflecting no or minimal basis differential relative to Henry Hub, indicating comparable natural gas price to those in the Gulf Coast producing region. According to the NESCOE letter to ISO-NE, the New England States preliminarily agree, through NESCOE, that recovery of the net cost of any such procurement of firm pipeline capacity will be collected through the Regional Network Services rate shared appropriately among the New England States. NESCOE's efforts to procure and pay for adequate natural gas pipeline capacity in the New England follows the "Commitment to Regional Cooperation on Energy Infrastructure" adopted by the six New England governors in December, 2013.

NYISO initiated operations in its new power control center in mid-December 2013. Phase I of this project is active now and includes gas visualization tools in the power control room's video wall for the system operators' use. One of the new components of the video wall is a static map visual which includes an overlay of major gas pipelines in the state, highlighting directly-connected generators, as well as some that are located behind an LDC. Phase II of this effort, which will be in place next year, will provide a more dynamic gas-electric map which will visualize where gas system alerts are occurring in the state. The NYISO is considering how Order No. 787, as well as the information that is already received from generators, can best be used to enhance the information operators have on generator availability. To make the gas-electric map more dynamic, NYISO will be linking specific operational information about the pipeline system with known generator fuel capability. The NYISO is continuing to engage in discussions with its stakeholders, other regions, natural gas industry representatives, and the Commission on how best to move forward.

PJM continues to hold monthly Gas Electric Senior Task Force meetings. The PJM Gas Electric Senior Task Force has been actively discussing changes to their day-ahead bidding and notification schedule as well identifying potential advantages to changing the gas nomination timeline. While consensus has not been reached, stakeholders are gaining an improved understanding of both gas and electric issues. PJM has expressed reliability concerns if next winter is similar to this one as retired generation places more demand on gas-fired generation.

Northeastern ISOs and RTOs continue to work closely with representatives from Planning Authorities in the Eastern Interconnection to provide EIPC with sensitivities and scenarios to be studied in 2014 in its EIPC Gas-Electric System Interface Study. These scenarios will be additions to the Task 1 Baseline report published in February.

Regional Initiatives Central

- MISO

- SPP

In the Midwest, the Electric and Natural Gas Coordination Task Force continued working on incorporating stakeholder feedback on an issue paper examining whether locational marginal prices appropriately reflect gas generator dispatch costs, as well as any reliability impacts unique to natural gas as a generation fuel. Preliminary findings suggest that current business rules in MISO are sufficient to allow stakeholders to react in an appropriate and timely manner to natural gas and electric market conditions.

The Task Force also discussed topics for new issue papers, including projected operational issues for 2016, MISO and stakeholder polar vortex experiences with natural gas availability and enhanced RTO/pipeline communication, process and timeline for development of additional pipeline infrastructure, and potential competition between gas-fired generation and summer storage injection.

SPP continues to hold monthly Gas Electric Coordination Task Force meetings. As a mid-term objective, the task force plans to review its tariff provisions and business practices to identify any advantages to proposing modifications in time for next winter. Longer term, SPP plans to review potential changes to its market protocols to improve coordination between the natural gas and electric system operations. SPP members are also beginning to evaluate NGC's Gas Day Initiative straw proposal and examine the design and system impacts any changes could have on SPP.

Regional Initiatives West

- PNUCC
- WIEB – SPSC
- Desert Southwest Pipeline Stakeholders Task Force

In the West, there are a number of sub-regional natural gas-electric coordination initiatives.

In the Pacific Northwest, the Pacific Northwest Utilities Conference Committee Power and Natural Gas Planning Task Force continues to provide a platform for natural gas pipelines and electric utilities to discuss enhanced communications and coordination issues.

The Western Interstate Energy Board's Natural Gas-Electric and System Flexibility Assessment is underway. The Phase 1 report is planned for completion in early March of 2014 and the Phase 2 work is to be completed in June. A subgroup of the Task Force, the Technical Advisory Group, is composed of inter- and intra-state pipelines, utilities and other electricity generators, and government organizations; it manages the project and works with the Assessment contractor, Energy and Environmental and Economics Per the recommendation of the pipeline companies involved in the study Task Force, pipeline companies will perform some of the modeling for Phase 2 of the report addressing gas delivery side analysis. Companies that volunteered to perform this modeling on their systems include Transwestern, San Diego Gas & Electric, Southern California Gas Company, Northwest Natural, Williams Northwest, TransCanada, Questar, Kern River, Southwest Gas, and Kinder Morgan.

On January 31, 2014, the Desert Southwest Pipeline Stakeholders (DSPS) filed comments in Docket No. AD12-12 discussing major transportation and supply issues facing shippers in the Desert Southwest, and proposing solutions to enhance coordination and promote reliability between the gas and electric industries.

Specifically, DSPS argues that that gas-fired generators in their region typically hold firm pipeline transportation capacity but cannot make full use of that capacity to respond to a contingency that occurs during or after their peak load period because of a lack of sufficient opportunities to adjust nominations. DSPS encourages the Commission to either: (1) eliminate the No-Bump Rule and move the last nomination cycle two hours later in the day to 7:00 pm CCT; (2) maintain the No-Bump Rule and modify the nomination timeline to add an additional 7:00 pm CCT intraday nomination cycle; or (3) at a minimum, provide policy guidance to NAESB necessary to modify the NAESB nomination timeline.

Winter 2013-14 Weather Events

- January 7- Polar Vortex impacts the Midwest and spreads to the Eastern Interconnection
- January 22 and 27- Eastern Interconnection continues to experience extremely cold weather
- February 6- Cold moves West
- March 3- Midwest sees late winter cold
- April 1 Commissioner-led Technical Conference
 - "Winter 2013-2014 Operations and Market Performance in Regional Transmission Organizations and Independent System Operators"

As reported by industry, a number of mid-winter cold weather events stressed the electricity markets. High loads stretched resources and several new records for winter peak loads were set. New winter peaks were observed in MISO, PJM, NYISO, and SPP. Although ISO-NE's load was also high, it did not set a new winter record. While record heating load demand stressed the natural gas system, and in turn electric operations, based on staff outreach, electric system operators reported that their gas-electric coordination and communication procedures generally worked well. Along with peak loads, record natural gas prices prompted a number of ISOs/RTOs to file for tariff waivers, as discussed in the last section of this report.

ISO-NE also reports that gas prices were higher than oil prices several days in January leading to the commitment of oil units ahead of gas units and significant use of oil and coal during the month. Virtually the entire non-nuclear and coal fleet became "limited energy generation" in New England, with generators managing limited fuel inventory. Despite these challenges, ISO-NE reports that the winter reliability program was instrumental in helping maintain reliability during the cold weather events. ISO-NE engaged in constant coordinated communications with the interstate gas pipelines to assess system conditions and ensure reliability of the electric and gas systems. In addition, to increase situational awareness, the ISO is continuing with its fuel inventory surveys which are being conducted twice a week.

This winter, NYISO implemented a new Cold Weather Procedure. Prior to each cold day, or each anticipated cold period, NYISO asked all gas-fired and dual-fuel generators to report to NYISO the amount of gas they nominated in the pipelines' Timely Cycle, the total amount of alternate fuel inventory they had in inventory, and

the timing of any additional alternate fuel inventory deliveries. This allowed NYISO to anticipate generator availability, given any known fuel restrictions.

MISO reported that it was able to manage a new winter peak load during the Polar Vortex despite roughly 25 GW of forced outages on January 7 and 8. Over 5 GW of the forced outages on January 7 were attributable to gas issues as low gas pressure caused de-rates or forced units off-line. MISO received real-time offers from some gas-fired generators that were unavailable when called upon, which caused a delay in the real-time planning process. The ongoing MISO and ANR Pipeline Company coordination field trial, provided operational benefits during the extreme weather events.

As part of its winter preparedness plan, SPP established communication protocols with two natural gas pipelines serving power generators in its footprint, Southern Star Central Gas Pipeline and Northern Natural Gas. The protocols allowed for the sharing of public information between the system operators and resulted in discussions during winter weather events regarding pipeline operational restrictions including critical notices and natural gas storage limitations. SPP noted that the public information based communication protocols were sufficient to address this winter's system conditions. Notably, SPP reached its winter peak during the early January event and second highest winter load during the March 3 event, however, SPP did not experience any reliability based electric issues but did see economic impact from the regional high natural gas prices. SPP is planning to expand their 2014-15 winter preparedness plan to include additional pipelines, CenterPoint Energy and DCP Midstream Partners.

High gas demand and prices in the entire western part of the U.S. pulled supplies away from California, leaving natural gas end users in California to rely more on in-state natural gas storage and less on inflows on interstate pipelines. Southern California Gas Company and San Diego Gas & Electric issued a system wide alert due to the low customer deliveries, which resulted in curtailments to several power plants. The high natural gas prices from supply constraints resulted in higher generator natural gas costs than were reflected in CAISO's day-ahead prices. As a result, CAISO scheduled more gas-fired generators to run at minimum generation levels, which inadvertently increased the demand for natural gas beyond levels that could be served. Natural gas supply problems developed over February 5-6 and led CAISO to issue a system warning and a request for consumers to reduce power demand around the system. Subsequently, CAISO requested two waivers of its tariff to allow the ISO to change gas price inputs in the markets and for payments to generators in certain situations. These waivers are discussed in more detail in the discussion of recent electric filings.

This February weather also impacted the Pacific Northwest. The region began to see the effects of the cold weather on Wednesday, February 5, when inflows from Canada into the U.S. Northwest declined because of well freeze-offs in Alberta. To make up for supply losses from Canada, utilities in the Pacific Northwest pulled heavily from storage inventories.

In light of these recent cold weather events, the Commission issued a notice on February 21, 2014 announcing a Commissioner-led Technical Conference on Winter 2013-2014 Operations and Market Performance in RTOs and ISOs on April 1, 2014 (Docket No. AD14-8). The technical conference will explore the impacts of the cold

weather events on the RTOs/ISOs and discuss actions taken in response to inform the Commission of the challenges posed by these events.

Commission Initiatives

- Notice of Proposed Rulemaking:
 - “Coordination of the Scheduling Processes of Interstate Natural Gas Pipelines and Public Utilities”
- Order Initiating Investigation into ISO and RTO Scheduling Practices
- Order to Show Cause
 - Posting of offers to purchase capacity

On March 20, 2014 the Commission issued a set of orders which propose interrelated actions to address certain natural gas and electric industry coordination challenges that arise, in part, from increased reliance on natural gas for electricity generation.

The Commission issued a Notice of Proposed Rulemaking (NOPR or Proposed Rule) proposing to: 1) start the natural gas operating day earlier—at 4:00 a.m. CCT, 2) start the Timely Nomination Cycle later—at 1:00 p.m. CCT, and 3) modify the current intraday nomination timeline to increase the number of standard intraday nomination cycles from two to four. In addition, the NOPR clarified Commission policy concerning the ability of a pipeline to permit firm shippers to bump an interruptible shipper’s nomination during any enhanced nomination opportunity proposed by a pipeline beyond the standard nomination opportunities. Finally, the NOPR proposed to require all interstate pipelines to offer multi-party service agreements under which multiple shippers can share interstate natural gas pipeline capacity under a single service agreement. (RM14-2-000)

Although the Proposed Rule presents specific proposed reforms to existing natural gas industry scheduling practices, the Commission recognized that the natural gas and electricity industries are best positioned to work out the details of how changes in scheduling practices can most efficiently be made and implemented, consistent with the policies discussed in the NOPR. Therefore, the Commission provided the natural gas and electric industries, through NAESB, with a period of 180 days after publication of the Proposed Rule in the Federal Register to reach consensus on any revisions to the Commission’s proposals and either file consensus standards with the Commission or notify the Commission of its inability to reach consensus on any revisions to the

Commission's proposals. Public comments on the Commission's proposals, as well as comments on any consensus standards, are due 240 days after publication of the Proposed Rule in the Federal Register.

The Commission also initiated investigations under section 206 of the FPA into the day-ahead scheduling practices of the regional transmission organizations and independent system operators to determine if they are just and reasonable and to ensure that these entities' scheduling practices correlate with any revisions to the natural gas scheduling practices that may be adopted by the Commission in a final rule stemming from the NOPR. (Docket Nos. EL14-22-000, EL14-23-000, EL14-24-000, EL14-25-000, EL14-26-000, EL14-27-000)

Finally, the Commission initiated an NGA section 5 show cause proceeding requiring all interstate natural gas pipelines to revise their tariffs to provide for the posting of offers to purchase released pipeline capacity in compliance with 18 CFR §284.8(d) of the Commission's regulations, or to otherwise demonstrate full compliance with that regulation. All filings must be submitted to FERC within 60 days of the issuance of the order. (Docket No. RP14-442-000)

Relevant Natural Gas Filings

Region	Pipeline/Association	Capacity/ Initiative	Docket No.	Status
Gulf Coast	Southeast Supply Header, LLC (SESH)	Capacity Expansion 45,000 Dth/d	CP14-87-000	Pending
Northeast	Algonquin Gas Transmission, LLC, East Tennessee Natural Gas, LLC, Texas Eastern Transmission, LP, Maritimes & Northeast Pipeline, L.L.C.	Order No. 787 on information sharing	RP14-307, RP14-308, RP14-309, RP14-310	Effective 1/19/2014
National	The Natural Gas Supply Association, the Process Gas Consumers Group, and the Northwest Industrial Gas Users	Order No. 787	RM13-17-001	Pending
Gulf Coast	Enable Gas Transmission, LLC and Enable Mississippi River Transmission, LLC (Enable)	Order No. 787	RM13-17-001	Pending
Northeast	National Fuel Gas Supply Corporation and Empire Pipeline, Inc.	Order No. 787 on No-Conduit Rule	RP14-380-000	Pending

Our next area covers relevant gas and electric filings submitted with the Commission, starting with gas applications. We highlight previously reported filings to expand pipeline capacity serving electric generation that have been the subject of recent Commission action as well as natural gas industry tariff revisions in response to Order No. 787.

Southeast Supply Header, LLC (SESH) filed on February 20, 2014 an abbreviated application for its proposed expansion project (SESH Expansion Project) SESH is proposing to increase the design capacity on the SESH mainline by 45,000 Dekatherms per day (Dth/d), for a total mainline system design capacity of approximately 1,070,000 Dth/d, made available by a receipt point pressure commitment from Enable Gas Transmission, LLC (EGT) at SESH's Delhi, Louisiana interconnect with EGT's Line CP. SESH has executed a precedent agreement and related firm service agreement with Southern Company Services, Inc., as agent for its affiliates Alabama Power Company, Georgia Power Company, Gulf Power Company, Mississippi Power Company and Southern Power Company (collectively, Southern Company) pursuant to which SESH will provide 25,000 Dth/d of firm service for an approximate 10- year primary term. The remaining capacity of 20,000 Dth/d will be available for subscription in accordance with the provisions of SESH's FERC Gas Tariff.

Additionally, the Commission has received several filings in response to Order No. 787, which became effective on December 23, 2013. Order No. 787 revised the Commission's regulations to provide explicit authority to interstate natural gas

pipelines and public utilities to share non-public, operational information with each other for the purpose of promoting reliable service and operational planning on either the public utility's or pipeline's system. As a protection against the disclosure of non-public, operational information, Order No. 787 also adopted a No-Conduit Rule that prohibits subsequent disclosure of that information received under the rule to a marketing function employee or third party.

On December 19, 2013, Algonquin Gas Transmission, LLC, East Tennessee Natural Gas, LLC, Texas Eastern Transmission, LP and Maritimes & Northeast Pipeline, L.L.C. each filed revised tariff records to permit the pipelines to, on a voluntary basis, share non-public operational information with ISOs/RTOs for the purpose of promoting reliable service or operational planning and to establish a mechanism to develop protocols between the ISOs/RTOs or public utilities and the pipelines for the sharing of such non-public information. On January 7, 2014, the proposals were accepted for filing by delegated order, effective January 19, 2014.

The Commission has also received two requests for rehearing of Order No. 787. These requests for rehearing are still pending before the Commission.

First, on December 16, 2013, the Natural Gas Supply Association (NGSA), the Process Gas Consumers Group (PGC), and the Northwest Industrial Gas Users (NWIGU) together filed a request for clarification or, in the alternative, rehearing of Order No. 787. NGSA, PGC, and NWIGU request that the Commission hold a technical conference after an interim period, such as one year from the date Order No. 787 was issued, to assess the use and effectiveness of the rule.

Second, on December 16, 2013, Enable Gas Transmission, LLC and Enable Mississippi River Transmission, LLC (Enable Interstate Pipelines) filed a request for rehearing of Order No. 787 related to the Commission's implementation of the No-Conduit Rule. Enable proposes that the No-Conduit Rule be revised to allow interstate pipelines to share non-public, operational information received under the rule with third parties (other than marketing function employees) for the purpose of promoting reliable service and operational planning in order to allow, among other things, an interstate pipeline company to share the non-public, operational information with its own personnel who also play an operational role in their affiliated intrastate pipeline or gathering pipeline operations.

In addition, National Fuel Gas Supply Corporation and Empire Pipeline, Inc. (National Fuel Pipelines) and Enable Interstate Pipelines have each requested a limited waiver of the No-Conduit Rule with respect to the disclosure of information received under the rule to certain of their affiliates. Both of these cases are still pending before the Commission.

Relevant Electric Filings

Entity	Filing Initiative	Docket No.
PJM	Temporary Waiver to Utilize Communications Permitted under Order No. 787	ER14-952
PJM	Request for Extended Waiver to Utilize Communications Permitted under Order No. 787	ER14-951
ISO-NE	Pipeline Information-Sharing Changes under Order No. 787	ER14-970
NYISO	Request for Limited Waiver of the \$1,000/MWh Bid Cap	ER14-1138-000
PJM	Request for Limited Waiver of the System Offer Cap Rule	ER14-1144-000
PJM	Request for Temporary Waiver of the System Offer Cap Rule	ER14-1145-000
CAISO	Request for Waiver to Update the Natural Gas Price Index used for Proxy Gas Calculations	ER14-1440 ER14-1442
CAISO Suppliers	Emergency Request for Temporary Waiver and Shortened Comment Period	ER14-1428-000

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.

Both PJM and ISO-NE submitted filings with the Commission in response to Order No. 787.

On January 3, 2014, PJM filed concurrently two requests for waiver of section 18.17.1 of the Operating Agreement to permit PJM to utilize the additional communication tools provided for in Order No. 787. PJM explained that, while it had initiated a stakeholder process to propose tariff revisions to share non-public operational information with interstate natural gas pipelines consistent with Order No. 787, section 18.17.1 of its Operating Agreement prohibited PJM from disclosing, without prior authorization, to its members or third parties, any confidential or market sensitive documents, data, or other information of a member.

The first request for temporary waiver—from January 4, 2014 to January 10, 2014—would provide PJM with expedited relief to share certain non-public, operational information with interstate natural gas pipelines serving PJM-member generation, in order to ensure reliability during the forecasted extreme weather conditions (Docket No. ER14-952). In light of the immediacy of the extreme weather conditions, and the Commission's issuance of Order No. 787, on January 6, 2014 the Commission found good cause to expeditiously grant the requested waiver.

PJM requested a second temporary waiver from January 11, 2014 to the earlier of the effective date of tariff revisions implementing the Commission's Order No. 787 or March 31, 2014 so as to allow it to share specific generator commitment schedules with interstate natural gas pipeline operators in the PJM Region (Docket No. ER14-951). The Commission issued an order on January 17, 2014 granting the requested waiver (January 17 Order). The January 17 Order found granting the requested waiver will help PJM ensure that communication between PJM and interstate pipelines serving generation within the PJM footprint can occur while PJM continues its stakeholder process.

On March 12, 2014, pursuant to section 205 of the FPA, PJM submitted proposed tariff revisions to amend PJM's confidentiality rules to allow PJM to share non-public, operational information with natural gas pipeline operators, consistent with the Commission's regulations adopted in Order No. 787 (Docket No. ER14-1469). PJM requested a waiver of the Commission's prior notice requirements so as to permit an effective date on one-day notice, or March 13, 2014. PJM's proposed revisions further extend the allowance of sharing non-public operational information with LDCs and intrastate natural gas pipeline operators, provided that such party or parties have acknowledged, in writing, that they are prohibited from disclosing, or using anyone as a conduit for disclosure of, non-public, operational information received from PJM to a third party or to its marketing function employees as that term is defined by Commission regulations. This matter is pending before the Commission.

On January 10, 2014, pursuant to section 205 of the FPA, ISO-NE and the NEPOOL (together, Filing Parties) submitted proposed tariff revisions to explicitly authorize ISO-NE to share confidential information concerning natural gas-fired generation located in New England with the operating personnel of interstate natural gas pipeline companies (Docket No. ER14-970). The Filing Parties explained that ISO-NE's then current Tariff did not permit the kind of communications authorized under Order No. 787 and the proposed changes would allow ISO-NE to provide interstate natural gas pipeline operators with output schedules for individual generators and discuss real-time information concerning specific resources for the purpose of maintaining reliability. On March 6, 2014 the Commission accepted the proposed Tariff revisions, effective January 11, 2014 as requested.

Additionally, NYISO, PJM, CAISO and CAISO Suppliers all filed waiver requests in response to Winter 2013-2014 cold weather events.

On January 22, 2014, NYISO filed a request for limited waiver—from January 22, 2014 through February 28, 2014—of sections 21.4 and 21.5.1 of its Market Administration and Control Area Services Tariff to the extent the sections set a temporary bid cap of \$1,000/MWh. The requested waiver would enable NYISO to allow generators to recover demonstrated costs that they actually incur to operate, should those variable costs exceed the tariff's \$1,000/MWh bid restriction, in response to spikes in natural gas costs caused by the recent extreme cold weather (Docket No. ER14-1138-000). The Commission issued an order on January 31, 2014 granting the requested waiver for the time period requested (January 31 Order). The January 31 Order found granting the requested waiver will help address the concrete problem that generators might be required to provide service to support reliability but without being able to recoup the incremental operating costs that they incur, which would discourage generators from

offering service at a time when they are needed. The January 31 Order further found that, although granting waiver may result in increased costs to load and increased costs to certain market participants if generators incur verifiable actual energy production costs above \$1,000/MWh, it is appropriate to allow generators to recover such costs in this exigent circumstance. The January 31 Order directed NYISO to make an informational filing no later than March 28, 2014.

On January 23, 2014, PJM filed concurrently two requests for waiver of PJM's Amended and Restated Operating Agreement (Operating Agreement) and the PJM Open Access Transmission Tariff (Tariff) in response to unprecedented spikes in fuel costs caused by recurring extreme cold weather events. The first request for limited waiver—from January 24, 2014 to March 31, 2014—would permit sellers that submit cost-based offers from Generation Capacity Resources into the PJM energy markets and whose costs exceed the applicable energy market clearing price to receive a make-whole payment covering the difference between their costs and the clearing price (Docket No. ER14-1144-000). The Commission issued an order on January 24, 2014 granting the requested waiver from January 24, 2014 to the earliest of the relief sought in Docket No. ER14-1145-000 (see below) or March 31, 2014 (January 24 Order). The January 24 Order found that the waiver is necessary to address the reliability concerns posed by sustained extreme weather being experienced in the PJM Region and maintain confidence in market operations. The January 24 Order directed the market monitor to submit an informational filing within 30 days of the expiration of the requested waiver identifying certain aspects of the cost-based offers.

PJM's second request for temporary waiver—from the date of a Commission order through March 31, 2014—would permit submissions of cost-based offers from Generation Capacity Resources into the PJM energy markets at prices that exceed the \$1,000/MWh offer-price cap (Docket No. ER14-1145-000). PJM explained that the waiver would ensure that not only generators submitting cost-based offers can recover their marginal costs of sales into PJM's energy market, but also that the price in that market will correctly reflect the marginal costs of those sellers when they are needed to serve PJM loads. The Commission issued an order on February 11, 2014 granting the requested waiver, effective from the date of the order through March 31, 2014 (February 11 Order). The February 11 Order found that PJM's request addressed a concrete problem by allowing Generation Capacity Resources to submit cost-based offers that fully reflect the marginal costs of those sellers. The February 11 Order directed the market monitor to submit an informational filing within 30 days of the expiration of the requested waiver that identifies: (1) the number of hours when clearing prices exceed \$1,000 as a result of the waiver; (2) the associated prices by zone; and (3) total energy costs.

On March 6, 2014 the California ISO (CAISO) filed two waiver requests of its natural gas pricing tariff provisions to provide protection against potential adverse outcomes in CAISO's day-ahead market caused by sudden increases in natural gas prices. CAISO explains that both waivers are necessary to protect generators from unrecoverable costs as a result of natural gas price spikes that may occur during the remaining winter and early spring period. CAISO offers February 6, 2014 as an example of a day where natural gas prices increased by approximately 300 percent above the pricing indices published the day prior to the execution of the day-ahead market for that trading day.

In one request, CAISO sought a limited waiver of two provisions of the ISO tariff, section 39.7.1.1.1.3 and 30.4.1.2, to allow CAISO to use updated natural gas price data for the limited purpose of financially settling certain types of transactions in the CAISO market when natural gas prices for the affected trading day significantly exceed the applicable tariff-based gas price index (Docket No. ER14-1442). CAISO explained that, due to the requirement that the CAISO calculate gas prices based on multiple price sources, and the timing of those publications, the gas price indices currently used to calculate fuel costs considered in the CAISO day-ahead market have the potential to lead to inefficient market outcomes and unrecoverable fuel costs when significant and sudden jumps in the price of gas occur. CAISO stated that, given the uncharacteristically volatile nature of natural gas prices observed this winter, the requested waiver is necessary to provide immediate and temporary relief and protection against potential adverse outcomes in the CAISO's day-ahead market. CAISO requested the Commission issue an order on the requested waiver, intended to be a stop-gap mechanism remedy to address near-term adverse outcomes, by March 7, 2014. On March 14, 2014, the Commission issued an order granting the requested waiver.

In its second waiver request, CAISO requests that the Commission grant a limited waiver through April 30, 2014 of the same two provisions of the ISO tariff as requested in Docket No. ER14-442 when natural gas prices for the affected trading day significantly exceed the applicable tariff-based gas price index. This broader request, however, would allow the CAISO to use updated natural gas price data not only for settlement purposes, but also for market execution (Docket No. ER14-1440). Under the requested waiver, CAISO will monitor gas prices and if, prior to the close of the day-ahead market at 10:00 a.m. on the day on which it executes the applicable day-ahead market, the CAISO has reason to believe that the gas prices published by the Intercontinental Exchange (ICE) that day will exceed 150 percent of the price index calculated the night before, the CAISO will hold open the day-ahead market until publication of the ICE prices. The CAISO will hold the day-ahead market open for up to two and one-half hours in order to incorporate this updated price data as well as to allow resources to resubmit bids reflecting the updated gas price calculations. CAISO is requesting that the Commission issue an order granting this petition by March 19, 2014. The Commission issued a notice of the filing on March 7, 2014 with comments due March 13, 2014. This matter is pending before the Commission.

On March 4, 2014, the Indicated CAISO Suppliers submitted an emergency request for temporary waiver of the CAISO tariff in order to allow generators to be reimbursed by CAISO for the costs of natural gas procured in response to CAISO dispatch directives, including the costs of disposing of natural gas when CAISO later elects not to dispatch units for which natural gas was procured in response to such directives. The Commission issued a notice of the filing on March 5, 2014 with comments due March 11, 2014. (Docket No. ER14-1428-000). On March 14, 2014, the Commission issued an order denying the requested waiver.

Relevant Electric Filings

Entity	Filing Initiative	Docket No.
ISO-NE and New England Power Pool	Offer flexibility changes	ER13-1877
ISO-NE and NEPOOL	Relocation of Dual-Fuel Switching Provisions	ER14-707

Updating on the previously reported ISO-NE and NEPOOL Offer Flexibility Changes (Docket No. ER13-1877-000), on January 17, 2014, ISO-NE and NEPOOL filed tariff revisions to comply with the October 3 Order regarding the market power mitigation rules that were revised as part of the Offer Flexibility Changes (January 17 Compliance Filing). The January 17 Compliance Filing clarifies that market participants that are subject to the lock-out provision may still use the consultation provisions of Section III.A.3.1 to provide updated fuel price information to the Internal Market Monitor and to have their Reference Levels updated to reflect that information. Further, the compliance changes allow more flexibility concerning when updated fuel price information may be submitted. The January 17 Compliance Filing also clarifies that whenever new Reference Levels are calculated during the Operating Day pursuant to the consultation provisions of Section III.A.3.1 or the automatic fuel price adjustment mechanism in Section III.A.3.4, those new Reference Levels will be used and made available to the Market Participant. On February 7, 2014, the New England Power Generators Association, Inc. (NEPGA) filed a protest of the January 17 Compliance Filing. Specifically, NEPGA argues that ISO-NE and NEPOOL's proposal to not update hourly Reference Levels for locked-out resources beyond normal business hours, *i.e.*, from 8 AM to 5 PM, (1) prohibits locked-out resources from changing their hourly Reference Levels for most of the operating day; and (2) denies a resource the flexibility for market participants to structure and modify supply offers in the energy markets. Accordingly, NEPGA requests that the Commission reject this aspect of the proposal as both non-compliant with the October 3 Order and unjust and unreasonable. This proposal is still pending before the Commission.

On December 19, 2013, ISO-NE and NEPOOL, submitted revisions to the ISO-NE Transmission, Markets and Services Tariff to relocate existing provisions that address market participant procedures for switching from a primary to secondary fuel. ISO-NE states that these revisions will ensure that the existing dual-fuel switching provisions remain in effect after the expiration of the Winter 2013-14 Reliability Program (Docket No. ER14-707). On January 15, 2014, the proposal was accepted for filing by delegated order, effective March 1, 2014.

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