Electricity and Natural Gas Coordination: As Winter Approaches, Regulators and the Energy Industry Respond

Energy Bar Association
Electricity Regulation Committee
Natural Gas Regulation Committee

October 8, 2013
Gas/Electric Market Coordination
Gas/Electric Market Coordination

- Decreased natural gas prices in the United States have led to increased reliance on natural-gas fired generation to serve consumers’ needs
- Increased reliance has highlighted the interdependence and incongruence of those markets
  
  February 2011 – Unusually cold weather in the Southwestern United States results in rolling blackouts effecting 4.4 million customers and extensive gas service curtailment

- Motivated by the Southwest outages, FERC initiated a proceeding in Docket No. AD12-12 to address the interdependency and coordination of the gas and electric markets. FERC directed technical conferences and reports from the ISOs/RTOs
Docket No. AD12-12 – Coordination Between Natural Gas and Electricity Markets
On February 3, 2012, Commissioner Moeller requests comments on coordination between the natural gas and electricity markets:

- “Specifically, what role should the [FERC] have in overseeing better coordination? What duties, if any, should be delegated to the [NERC], the [NAESB], or other entities?”

- “To what extent should FERC defer to various regions of the country in addressing these challenges? Should FERC view organized electricity markets different from bilateral electricity markets? If regional deference is given, what role should FERC play to assure that regional agreements are adhered to?”

- “The expanded use of natural gas for electricity generation is likely to change flows on the natural gas pipeline system. Does FERC need to address this issue?”

- “Within each day, electricity trading differs significantly from gas trading. Similarly, on a day-to-day basis, the various gas markets may not be open on the same days as the corresponding electricity market, especially over Saturdays, Sundays, and Holidays. How should FERC help to harmonize these markets?”

- “What will be the impact of the expected retirements of coal and oil-fired generation on the need for gas and electricity coordination?”

- “To what extent should FERC consider modifying its existing Standards of Conduct with regulated utilities—either on an emergency basis or in a more fundamental manner—to assure greater coordination of these industries?”

- “Will progress on this issue be faster if policies are addressed in several “baskets”, such as communication, operation, contracting, and planning/contingency analysis? If so, what are the appropriate baskets?”
Docket No. AD12-12 – Coordination Between Natural Gas and Electricity Markets

- February 15, 2012 – FERC issues notice assigning docket and requesting comments
  
  “The natural gas and electricity industries provide a service that is critical to the health and safety of the nation. Since natural gas is expected to be relied on much more heavily in electricity generation, the interdependence of these industries merits careful attention. This interdependence was highlighted at a recent National Association of Regulatory Utility Commissioners (NARUC) conference, in a session led in part by Commissioner Norris, on ways to improve coordination between the two industries.”
Docket No. AD12-12 – Coordination Between Natural Gas and Electricity Markets

• August 2012 – FERC holds five regional technical conferences in August 2012 to discuss “(1) communications/coordination/information sharing; (2) scheduling; (3) market structures and rules; and (4) reliability concerns.”

• November 2012 – Based on information received during the regional technical conferences, FERC orders additional technical conferences on information sharing and scheduling, and directs RTOs/ISOs to report on their progress:
  
  — “Based on the totality of this information and the reality that changes to market structures and development of infrastructure do not happen over night, [FERC] believes the most prudent course of action at this time is to more fully explore the two primary issues identified above through additional, targeted technical conferences. In addition, [FERC] directs each [RTO and ISO] to appear before [FERC] on May 16, 2013 and October 17, 2013, to share their experiences from the winter and spring, and summer and fall, respectively.”

• February 13, 2013 – FERC holds technical conference on information sharing

• April 25, 2013 – FERC holds technical conference on scheduling

• May 16, 2013 – RTOs/ISOs report on progress at FERC Open Meeting
Docket No. RM13-17 – Communications NOPR

- “[FERC] is proposing to revise Parts 38 and 284 of [FERC’s] regulations to provide explicit authority to interstate natural gas pipelines and public utilities that own, operate, or control facilities used for the transmission of electric energy in interstate commerce to share non-public, operational information with each other for the purpose of promoting reliable service or operational planning on either the public utility’s or pipeline’s system.

- This proposal will help ensure the reliability of pipeline and public utility transmission service by permitting transmission operators to share the information that they deem necessary to promote the reliability and integrity of their systems with each other. However, recipients of that non-public, operational information would be subject to a No-Conduit Rule that prohibits subsequent disclosure of that information to an affiliate or third party.”
FERC proposes voluntary approach to information sharing:

“[FERC] has structured the proposed regulations to provide significant flexibility to individual transmission operators—who have the most insight and knowledge of their systems—to determine what non-public operational information, if any, would promote reliable service on their systems, without fear of violating [FERC’s] prohibitions on undue discrimination and undue preference or such an exchange being considered an unjust and unreasonable practice. Notably, [FERC] is proposing a permissive approach to the sharing of non-public information. To the extent this voluntary approach proves inadequate to promote reliable service or operational planning on natural gas pipelines and electric transmission systems, [FERC] may revisit the need to require certain communications or information sharing between transmission operators in the future.”
FERC explains that the proposed information sharing is not unduly discriminatory or preferential:

“The undue discrimination provisions apply to ensure that similarly situated customers are not subject to disparate rates or terms and conditions of service. As discussed below, transmission operators are not similarly situated to other customers because they require access to non-public scheduling and other types of information from a variety of sources to help them ensure the reliability and integrity of the transportation and transmission systems.”
Proposed regulations, 18 C.F.R. §§ 38.3(a), 284.12(b)(4), authorize “public utilities providing transmission service and natural gas pipelines to share non-public, operational information when such information is for the purpose of promoting reliable service or operational planning.”

“The term ‘non-public, operational information’ is information that is not publicly posted, yet helps transmission operators to operate and maintain either a reliable pipeline system or a reliable electric transmission system on a day-to-day basis, as well as during emergency conditions or for operational planning. Non-public, operational information may also include generator, pipeline, or transmission-specific information.”

To ensure that shared information remains confidential, the proposed regulations place several limitations on disclosure, including a “No-Conduit Rule that prohibits all public utilities and natural gas pipelines, as well as their employees, contractors, consultants, or agents, from disclosing, or using anyone as a conduit for the disclosure of, non-public, operational information they receive under this proposed rule to a third party.”
Docket No. AD13-7 – Centralized Capacity Markets in RTOs/ISOs
Docket No. AD13-7-000 – Centralized Capacity Markets in RTOs/ISOs

- FERC schedules Sept. 25, 2013 technical conference on centralized capacity markets in RTOs/ISOs:

“The purpose of the technical conference is to consider how current centralized capacity market rules and structures are supporting the procurement and retention of resources necessary to meet future reliability and operational needs. Since their establishment, centralized capacity markets have continued to evolve. Meanwhile, the mix of resources is also evolving in response to changing market conditions, including low natural gas prices, state and federal policies encouraging the entry of renewable resources and other specific technologies, and the retirement of aging generation resources. This changing resource mix may result in future reliability and operational needs that are different than those of the past. In addition, some states have pursued individual resource adequacy policies to ensure the development of new resources in particular areas or with particular characteristics, and questions have been raised as to how those individual policies can be accommodated in centralized capacity markets.”

“[FERC] has addressed a number of these issues in specific cases, based on the facts and circumstances presented in a given case and the particular centralized capacity market design implemented by individual regions. This technical conference will provide an opportunity to review at a high level the centralized capacity market rules and structures, and will examine how these markets are accomplishing their intended goals and objectives through a competitive, market-based process. Recognizing and respecting differences across the markets, the technical conference will focus on the goals and objectives of existing centralized capacity markets (e.g., resource adequacy, long-term price signals, fixed-cost recovery, etc.) and examine how specific design elements are accomplishing existing and emerging goals and objectives (e.g., forward period, commitment period, product definition and specificity, market power mitigation, etc.).”
Dominion Proceeding – Docket Nos. ER13-1291, EL13-72, & ER13-2149
On April 15, 2013 Dominion filed a request for additional cost recovery pursuant to section III.A.15 of the ISO-NE tariff to recover the costs of running Dominion’s Manchester Street generation units during winter storm Nemo “for reliability support past the Units’ commitments in ISO-NE’s Day-Ahead Market.”

Dominion stated that “[t]he reliability need was the result of the significant impact winter storm Nemo had on the ISO-NE system, which resulted in Manchester Street being one of the only generation resources capable of serving load and helping to maintain stability and voltage support in the Rhode Island (“RI”) and South East Massachusetts (“SEMA”) load zones. In this respect, Manchester Street was critical to maintaining system reliability during February 8, 9, and 10.”

Dominion requested that FERC “(1) authorize recovery of $336,095 in fuel costs for Manchester Street; (2) authorize [Dominion] to recover reasonable regulatory costs incurred in this effort . . .; and (3) to implement market rule changes before next winter (2013-2014) (i) providing a mechanism for generation resources committed for reliability to recover their actual fuel costs incurred in meeting the reliability need without the necessity of having its Supply Offer first mitigated and without submitting a Section 205 filing at FERC; and (ii) allowing resources to update their Supply Offers in real time to reflect changes to their operating costs after the reoffer period.”
• On June 14, 2013 FERC issued an order granting cost recovery and instituting a section 206 proceeding.

• FERC granted Dominion’s request for fuel cost recovery:
  
  – “The Commission grants Dominion’s fuel cost recovery request of $336,095, plus reasonable regulatory costs incurred in connection with this filing, subject to Dominion submitting a compliance filing detailing the actual regulatory costs. Dominion followed the requirements of section III.A.15 of Appendix A to the tariff to obtain the cost recovery for additional costs incurred on February 10. According to the tariff, a resource’s supply offer must be mitigated in order for the IMM to approve a cost recovery request. Dominion’s supply offer for February 10 was mitigated and it submitted a cost recovery request to the IMM for the costs it incurred on February 8-10. As noted above, the IMM issued a report supporting Dominion’s request for cost recovery for February 10 but finding that because mitigation is a necessary pre-condition for market participants to receive cost recovery under the tariff, Dominion did not satisfy the requirements for additional cost recovery for February 8 or 9. Once the IMM provides a written explanation to the market participant on its cost recovery request, and, within 60 days of that explanation, the market participant can exercise its right to submit a cost recovery filing to the Commission under section 205. It is undisputed that Dominion properly exercised that right here.”
FERC found the existing section III.A.15 cost recovery provision unjust and unreasonable:

“we find that ISO-NE’s existing tariff, in particular section III.A.15 of Appendix A, is unjust, unreasonable, unduly discriminatory or preferential, because it does not provide resources an adequate opportunity to recover costs incurred to comply with ISO-NE directives to ensure reliability in instances when their supply offers were not mitigated. In situations such as the one Dominion experienced on February 8 and 9, despite complying with ISO-NE’s directives to maintain reliability, resources could suffer significant financial loss in unrecovered costs. [FERC] finds that this outcome for resources called upon to respond to critical reliability needs is unjust and unreasonable.”

FERC directed ISO-NE to submit tariff revisions:

“we direct ISO-NE to submit tariff revisions which allow resources to submit a section 205 filing for cost recovery, including fuel and variable operation and maintenance costs for the resource, in circumstances where for reliability reasons a resource is dispatched: (1) beyond its day-ahead schedule, where there is no opportunity to refresh the offer price to reflect current costs; or (2) after the results of the day-ahead market schedule are published, where the resource did not receive a day-ahead market schedule.”
FERC acknowledged the concerns that such a cost recovery mechanism could “undermine the accuracy of submitted offers” but found that, on balance, “it is appropriate to require that resources providing critical reliability services have a reasonable opportunity to recover costs associated with providing that service.”

FERC provided guidance for ISO-NE to use in preparing its compliance filing:

- “[FERC] expects that the parameters of the tariff provision(s) directed here will be sufficiently restrictive to discourage anticompetitive offering behavior but still allow for cost recovery in circumstances, for example, when a resource responds to a directive from ISO-NE to provide essential support to part of the system but has no reasonable opportunity to recover its costs. In other words, the tariff provision should ensure that a resource would be permitted to seek cost recovery, where, for instance, a resource submits an offer based on one fuel type but is required to run on another or cannot burn natural gas based on an Operation Flow Order restriction. These examples are not intended to be exhaustive and should not unduly limit the criteria ISO-NE develops for cost recovery under extraordinary circumstances. Our intention is for ISO-NE’s tariff to provide enough flexibility to allow for cost recovery by resources that respond under extraordinary circumstances like those faced by the ISO-NE market on February 8 and 9.”
On August 13, 2013, ISO-NE submitted its compliance filing proposing tariff revisions that allow cost recovery in circumstances when an M/LCC2 Abnormal Conditions Alert issued by ISO-NE.

- “The ISO has developed changes to Section III.A.15 that comply with [FERC’s] June 14 Order. In doing so, the ISO was particularly mindful of [FERC’s] guidance that a market participant’s additional authority to file for recovery of costs should extend only to the limited circumstances in which the market participant is responding to ‘ISO directives’ regarding ‘critical reliability needs’ in ‘extraordinary circumstances.’”

- “Section III.A.15.1.1 specifies that an abnormal conditions alert is issued by the ISO when either (1) one of the conditions that triggers the issuance of a M/LCC 2 Abnormal Conditions Alert is issued by the ISO; (2) an action under OP-4, Action During a Capacity Deficiency, is taken; or (3) an action under OP-7, Action in an Emergency, is taken. As was explained above, during the February snowstorm that resulted in this proceeding, an M/LCC 2 alert was in place from 7:00 a.m. on February 8 through 6:00 a.m. on February 12, during the entire period for which Dominion requested additional cost recovery. When combined with OP-4 and OP-7, these three procedures comprehensively detail the actions and alerts the ISO takes to address all critical events that significantly risk the reliability of the electrical system.”
On August 20, 2013, the NEPOOL Participants Committee asserted that the ISO-NE proposal is deficient and proposed alternative tariff provisions that include an additional circumstance:

- “Specifically, the ISO-NE Proposal fails to reflect in the Market Rule an opportunity for a Market Participant to seek cost recovery under Section 205 of additional costs incurred as a result of the declaration of a *force majeure* event on the natural gas pipeline system after the time when a Market Participant has submitted its Day-Ahead Energy Market Supply Offers.”

- “The NEPOOL Alternative provides that, if such a force majeure declaration occurs, a request for cost recovery ‘may only be made for incremental fuel costs above its Supply Offer for a natural-gas fired generating Resource that is unable to procure fuel at the price anticipated by the Resource in its Supply Offer due to the force majeure declaration by the pipeline or upstream pipeline via which the Resource’s anticipated fuel supply would have been delivered.’”

ISO-NE and the NEPOOL Participants Committee disagree about whether NEPOOL’s alternative proposal is properly considered a “jump-ball” filing under section 11.1.5 of the Participants Agreement.
On September 3, 2013, Dominion filed a protest asserting that ISO-NE’s compliance filing “is overly narrow and inconsistent with the spirit and intent of [FERC’s] June 14 Order.”

Dominion states that ISO-NE’s tariff changes are “overly focused on what the ISO perceives at [FERC’s] guidance that a market participant’s ability to file to recover costs should be limited to circumstances where the market participant is responding to directives for critical reliability in ‘extraordinary circumstances.’”

Dominion states that FERC “should direct the ISO to either: (a) delete the additional condition regarding an abnormal condition alert; or (b) direct the ISO to amend the Tariff to allow resources an opportunity to file at FERC to recover fuel and other variable costs of operating generation resources incurred to comply with ISO-NE directives to ensure critical reliability where the ISO did not declare an abnormal condition alert[.]”
NEPGA Complaint – Docket No. EL13-66
On May 17, 2013, the coalition of New England generators (NEPGA) filed a complaint against ISO-NE to challenge how ISO-NE was interpreting its tariff in respect of generator capacity obligations and fuel supply through its November 5, 2012 memorandum to participants.

NEPGA argues that ISO-NE’s interpretation would have the impact of requiring capacity resources to make fuel supplies available around-the-clock.

NEPGA argues that this effectively creates “new” obligations on market participants, and argues that if ISO-NE wants these “new” obligations in place, it must file revisions to its tariff.
• Several generators added comments in support of NEPGA’s complaint
  – departure from past practice creating the de facto requirement of having firm gas supply in place without the ability to recover associated costs if not picked up in the DA market or otherwise dispatched

• If held to these requirements, some suppliers claim that there would be an exodus from the market
ISO-NE Response to Complaint

• Generators that “voluntarily accepted” capacity obligations in exchange for annual capacity payments must meet those obligations without excuse based on their failure to make appropriate fuel arrangements or a decision not to procure based on high prices

• Repeated failure by some generators (over 100 instances) has “necessitated” actions by ISO-NE, including referrals to FERC (and FERC should await Enforcement’s recommendations)

• November 5th memo does not add a new obligation or create a requirement that generators make 24/7 firm fuel arrangements
  – Capacity resources are already required to submit daily supply offers in the DA market, and those supply offers must remain open in real-time unless modified in the re-offer period – regardless of whether the offer was committed day-ahead
ISO-NE’s November 5 interpretation imposes a requirement that capacity resource must always have fuel

- Only available option—always having gas—fails because it currently is impossible for every gas-fired capacity resource to always have enough gas to operate at its full capacity supply obligation whenever called upon

- ISO-NE tariff does not have a requirement to always have fuel

Enforcement inquiries do not halt litigation; FERC can respond to the Complaint
Exceptions to Performance:

• Tariff imposes strict performance obligations on capacity resources. It also accounts for events that may cause a resource to be unable to follow dispatch instructions.
  – E.g., forced Outages, Force Majeure events and other events that result in a resource not being physically available.

• HOWEVER, FERC determined that there is an important distinction between being unable to procure fuel or transportation and making an economic determination not to procure fuel or transportation.
FERC Order on NEPGA Complaint

• A **demonstrated** inability to procure fuel or transportation for a resource to run beyond its day-ahead commitment, or when not scheduled in the day-ahead market, may legitimately affect when a resource is physically unavailable.

  – If a resource cannot procure fuel or transportation in real-time in order to run at dispatch levels beyond its day-ahead commitment (or when not scheduled day-ahead), then the resource is not physically available to perform for a reason beyond its control – and thus may be excused for non-performance.

• FERC recognized that factors such as the timing differences between the gas and electricity markets and the current ISO-NE tariff may make it difficult for a resource to not only procure fuel/transportation but also to reflect any accompanying fuel premium in a revised offer, particularly when ISO-NE dispatches the resource after the day-ahead commitment process.

  – Resources are also subject to gas pipeline tariffs and protocols that, among other things, require resources with firm fuel supply to nominate gas they plan to use the following day.
FERC Order on NEPGA Complaint

- FERC found that economic considerations are irrelevant to determining whether a resource is “physically available”.
  - The price of fuel may not affect a unit’s physical availability, nor does an unwillingness to procure fuel at the prevailing price qualify as a “Forced Outage” or “Force Majeure”.
  - FERC determined that a resource that fails to comply with dispatch instructions when it is physically unavailable but has determined not to procure fuel or transportation due to economic considerations is in violation of the tariff.

- Capacity Supply Obligation Resources must offer a MW >= its Capacity Supply Obligation into the DA and RT energy markets when that resource is physically available, and those offers must remain open through the operating day for which the supply offer is submitted.
  - There is an opportunity to revise offer parameters during the re-offer period, however once this ends, the bid remains in place for real-time.
FERC Order on NEPGA Complaint

- FERC recognized that ISO-NE’s tariff has not allowed appropriate cost-recovery for fulfilling a Capacity Supply Obligation in all cases, but points to cases where cost-recovery has been allowed during extraordinary circumstances, like in *Dominion*.

- In *Dominion*, FERC directed ISO-NE to submit tariff revisions that allow resources to submit a 205 filing for cost-recovery, including fuel and variable operation and maintenance costs when dispatched:
  - (1) beyond its DA schedule, where there is no opportunity to refresh the offer price to reflect current costs; or
  - (2) after the results of the DA market are published, where the resource did not receive a DA schedule.
FERC Order on NEPGA Complaint

Enforcement Matters:

• FERC found that based on the circumstances (e.g., ISO-NE’s failure to enforce performance obligations until recently, and the ongoing stakeholder discussions on related market-design issues) it will not pursue any pending enforcement referrals from ISO-NE’s IMM that are based solely on an alleged inability to procure natural gas.

• FERC states that going forward it expects that ISO-NE’s IMM will refer suspected violations, including a capacity resource’s failure to timely notify ISO-NE that the resource is not physically available (resources must re-declare any changes to the offer parameters that occur in real-time to reflect the known capability of the resource).

• FERC concluded that the IMM will need to make a factual determination as to whether a resource was unable to procure fuel and/or transportation. For that reason, FERC is requiring ISO-NE, through the IMM, to make an informational filing within 30 days providing a written explanation regarding factors the IMM typically expects to examine to determine whether a violation might exist.
NEPGA September 26th Rehearing Request

• FERC should clarify that capacity resources may rely on intra-day measures when ISO-NE increases dispatch in real-time.

• Clarify that when a resource’s dispatch instructions increase after it receives its DA commitment, it is consistent with the tariff requirements for the resource to do everything within its control to procure additional fuel in the intra-day markets.

• Concern that ISO-NE will continue to take the position that any failure to respond to a dispatch instruction as a result of lack of fuel – absent a pipeline failure e.g. – may be considered a tariff violation.

• FERC erred in not requiring ISO-NE to file its lists of factors under FPA 205 (subject to public comment) because they affect a rate.

• FERC failed to articulate a reasonable basis for excluding fuel procurement from the Good Utility Practice standard.
NEPGA Rehearing Request

• FERC erred in permitting confiscatory rates to continue without identifying any remedy or timeline for remedy. FERC acknowledge shortcomings in the tariff for addressing compensation for generators asked to run beyond their DA commitment.
  – Instead of proposing a remedy, FERC simply points to 205 filings for fact specific cost-recovery scenarios (e.g. Dominion).

• FERC should order a stakeholder process to address cost-recovery issues with a compliance filing due no later than March 26, 2014.
• ISO-NE provided a “non-exhaustive” list of factors that the IMM will consider in evaluating whether a market participant’s failure to meet its performance obligations under the tariff was the result of not being able to procure fuel because fuel was physically unavailable.
  – Order found that a demonstrated inability to procure fuel for a resource committed beyond its DA schedule, or for a commitment when the resource was not scheduled DA, renders the resource physically unavailable for reasons beyond the MP’s control, and serves to excuse non-performance.

• FERC determined that this is a fact-specific process and therefore required ISO-NE to file the factors to be considered.
  – NEPGA believes these should be filed under FPA 205.
• ISO-NE filed a list in three parts, (1) considerations for all resources; (2) considerations for resources that do not have fuel storage capacity, including NG fueled gen that procure via pipeline, and (3) considerations for resources with fuel storage capacity, including oil/coal resources.

• What follows is ISO-NE’s listed factors.
Factors applicable for all generating Resources:

• The time the dispatch instruction was issued by the ISO.

• The amount of fuel needed to fulfill the dispatch instruction.

• The resource’s operating characteristics as reflected in the Supply Offer at the time the dispatch instruction was issued, and any discrepancy between those values and the resource’s actual characteristics at that time.

• Whether the resource had a Day-Ahead Energy Market commitment.

• Whether the amount of energy for which the resource was dispatched in the dispatch instruction exceeded the resource’s Day-Ahead Energy Market commitment.
Factors applicable for natural gas fueled generating Resources (incl. dual-fuel resources) and other resources without on-site fuel storage:

• Fuel arrangements to support Real-Time commitment /dispatch.
  – Arrangements to have marketers and/or suppliers available in non-business hours and options/other arrangements to purchase and have fuel delivered on short notice.

• Actions taken to obtain fuel.
  – Communications with natural gas pipelines, Local Distribution Companies, marketers, LNG suppliers and other actions taken to obtain fuel.

• Availability of a gas nomination cycle to procure fuel for Dispatch Instruction.

• Conditions on the natural gas pipeline system including notices restricting pipeline operation, ability to deliver natural gas from north or east of generator’s location and any other information about pipeline conditions.
Factors applicable for oil and coal fueled resources (including dual-fuel resources) and other resources with on-site fuel storage:

• The amount of fuel on site at the time the resource was committed in the Day-Ahead Energy Market and at the time a dispatch instruction was issued for a Real-Time dispatch.

• The operating status of the facility’s on-site fuel delivery systems at the time the resource was committed in the Day-Ahead Energy Market and at the time a dispatch instruction was issued for a Real-Time dispatch.

• Arrangements in place for fuel replenishment during normal and emergency conditions.
ISO-NE Winter Reliability Proposal

- **Docket No. ER13-1851**: ISO-NE intends to use its Winter Reliability Program to procure up to 2.4 million MWh of energy for winter 2013-2014, from a combination of oil-fired generators, dual-fuel generators, and demand response assets.

- The Winter Reliability Program contains four components: (1) demand response; (2) oil inventory service; (3) dual-fuel testing; and (4) market monitoring changes.
  - DR (30-minute reserves) payment would be higher of LMP or $250/MWh and oil inventory services would be paid “as bid”
  - Testing for dual fuel switching capabilities (5 hours or less)
  - Waiver of requirement to obtain IMM approval to switch to higher cost fuels and impact on mitigation thresholds
  - Effective through February 28, 2014. The fourth component would be effective for an indefinite time period.
ISO-NE Winter Reliability Proposal

Commission Determination

- Stakeholder comments generally supportive but some expressed concerns regarding ISO-NE’s intervention into the market, distortion of market signals and desire for longer-terms market solutions.
- FERC accepted proposal with some conditions and critique about timing of the proposal.
- ISO-NE is directed to submit revised tariff records in a compliance filing before October 16, 2013.
ISO-NE “Pay for Performance” FCM

- ISO-NE circulated a white paper and supporting materials in late October/November 2012 describing FCM Performance Incentives (PI) to address shortcomings in the current system.

- For white paper, proposals and stakeholder input, please see [http://www.iso-ne.com/key_projects/fcm_perf_incentives/](http://www.iso-ne.com/key_projects/fcm_perf_incentives/)

- “creation of sufficient incentives to cause generators to perform in accordance with their operating characteristics was necessary to address the reliability risks associated with increased dependence on natural gas for electricity generation”

- “stronger performance incentives are necessary” and thus ISO-NE “proposes a new ‘pay for performance’ approach”

- Stakeholder comments continue to be submitted
ISO-NE “Pay for Performance” FCM

ISO-NE View of Benefits:

• **Operational-Related Investment** (including dual-fuel capability, short-notice or more reliable fuel supply arrangements, continuous staffing at resources, rapid price-responsive demand behavior)

• **Increased Resource Responsiveness and Flexibility** (improved operating practices, incremental capital investments and addition of more flexible resources)

• **Cost-effective Solutions** (market-based approach rewards most cost-effective means to improve performance and availability)

• **Efficient Resource Evolution** (improved system reliability at lower cost)
ISO-NE “Pay for Performance” FCM

**Key Components/Concepts**

- “the existing FCM Shortage Event penalty structure must be replaced”
- “creation of strong financial incentives for all capacity suppliers, without exception, to perform during scarcity conditions” (when ISO-NE is unable to satisfy energy demand plus operating reserves)
- “incentives should include financial transfers from under-performing resources to over-performing resources during these scarcity conditions.”
  - Consumers will not bear the short-run risk of covering unexpectedly high performance incentives.
- Consequence is that capacity suppliers will face greater financial risk.
  - Suppliers will act to reduce this risk by improving resources’ physical performance and may incur new costs.
The central idea is that a supplier’s FCM revenue comprises two parts: a base payment, and a performance payment.

- The base payment is determined by the forward capacity auction result.
- The performance payment is determined by a resource’s performance whenever scarcity conditions occur during the capacity commitment period.
- A resource’s performance payment may be a positive or negative adjustment to its base payment, reflecting superior or inferior performance during scarcity conditions.