

# Frequency Regulation Compensation NOPR Update – IRC & NYISO

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# Background

- ◆ On February 17, 2011 FERC issued a NOPR on Frequency Regulation Compensation
- ◆ The NYISO presented an overview of the NOPR at the April MIWG
- ◆ Market Participants requested the NYISO present the NYISO and IRC responses to the NOPR at MIWG

# Refresher: FERC Specific Proposals

- ♦ **“Specifically, the Commission proposes to require ISOs and RTOs to change their tariffs so that regulation resources receive a two-part payment”**
  - *“The Commission proposes to require that each regulating resource is paid a uniform capacity payment that includes the opportunity cost of the marginal regulating resource.”*
  - *“The second part of the payment is a performance payment based on the amount of up and down movement, in megawatts, the resource provides in response to a control signal. This performance payment should also take into consideration a resource’s accuracy in providing ACE correction.”*
- ♦ **“In addition, the Commission preliminarily finds that cross-product opportunity costs should be calculated by the RTO or ISO, as it has the best information to determine a frequency regulation resource’s cross-product opportunity cost due to not participating in the energy market.”**
- ♦ **“Further, where appropriate, resources should be permitted to include inter-temporal opportunity costs in their capacity bid.”**

# IRC's NOPR Response

- ◆ **IRC focused on 4 key things:**
  - *Follow dispatch, not ACE*
  - *Speed and sustainability are both important*
  - *Opportunity costs should be in clearing price*
  - *Final rule needs to afford flexibility*

# IRC: Follow dispatch, not ACE

- ♦ **“Regulation compensation mechanisms should be designed to provide an incentive to follow ISO/RTO control signals, rather than being based solely on rewarding ACE correction efforts. RTO/ISO control signals are, by their nature, designed to ensure compliance with a host of reliability requirements (such as CPS I and II). A compensation mechanism limited solely to moving ACE to zero is too narrow and, as explained below, could be counterproductive to ensuring overall compliance with relevant reliability standards.”**
- ♦ **“Indeed, the purpose of regulation is not to correct system frequency. Rather, it is to manage the deviations incurred by short-term mismatches between supply and demand. This is a larger task and is what is required to comply with NERC control performance standards.”**
- ♦ **“Indeed, a metric that is based on each individual BA Area (“BAA”) achieving a zero ACE would be inconsistent with the interconnected nature of the grid, unduly costly and would not serve reliability.”**

## IRC: Speed and sustainability are both important

- ♦ **“ISOs/RTOs need to use an integrated set of regulation resources reflecting varying characteristics, including the duration as well as the rapidity of response, and the final rule should permit such recognition in developing compensation mechanisms.”**
- ♦ **“Rapid response resources are potentially valuable tools when used in concert with resources having other characteristics, to provide a complementary arsenal of operating capabilities to address system needs that arise in different regions and during different operating conditions. Just as the rate of response is an important tool in managing regulation requirements, sustainability is also an important consideration in the determination of regulation requirements.”**
- ♦ **IRC proposed a change to Section 35.28(g)(3) to clarify that compensation for frequency regulation be based on response to operator signals, and remove the reference to correcting Area Control Error.**

## IRC: Opportunity costs should be in clearing price

- ♦ **“An ISO/RTO-calculated opportunity cost of the marginal resource should be included in a uniform regulation clearing price, and net-energy billing features of existing compensation rules may not be redundant under the NOPR’s proposals.”**
- ♦ **“The IRC supports the proposal to include the opportunity cost of the marginal resource in a uniform regulation clearing price for regulation service. However, market participants may find it difficult to estimate opportunity costs due to the fact that system conditions and resulting market outcomes are not transparent to individual participants. Because this information is transparent to ISOs and RTOs, they are best positioned to estimate a resource’s cross-product opportunity costs. An ISO or RTO is also in the position to recalculate those costs if system conditions and economic dispatch patterns change.”**
- ♦ **“The IRC also observes that existing tariff provisions regarding compensation for energy provided are not redundant under the NOPR’s proposals.”**

## IRC: Final rule needs to afford flexibility

- ♦ **“More generally, the Final Rule should also afford flexibility to enable ISOs and RTOs to develop cost-effective frequency response solutions that reflect their varying assets, market structures and BAA size, as well as the evolving technologies and capabilities of regulation resources.”**
- ♦ **“In addition to the specific flexibility requested above, the IRC also asks that the final rule provide an ISO or RTO the flexibility to develop compensation mechanisms that properly account for the diversity and characteristics of resources within its market, varying market rules, and the size of a particular BAA.”**



# NYISO's NOPR Response

- ◆ **NYISO response focused on 4 key things:**

- *1) Agree with IRC comments*
- *2) MCP opportunity cost works*
- *3) Performance based compensation*
- *4) Provide flexibility in final order*

# NYISO: MCP opportunity cost works

- ♦ **“The NYISO’s MCP for Regulation Service incorporates the lost opportunity costs that the marginal resource experiences as a result of its Regulation Service award.”**
- ♦ **“... the NYISO’s Day-Ahead MCPs for regulation service have dropped from an average of \$43/MW of regulation service capacity in 2010 to an average of \$11/MW in January 2011 with the recent addition of new supply. The average response rate has also risen. On April 22, 2006 it was 4.69 MW/minute; on April 22, 2011, it was 7.63/MW minute.”**
- ♦ **“The NYISO believes that its regulation market is competitive, produces an efficient price, incentivizes the addition of new, efficient resources and provides a product that enhances reliability.”**

## NYISO: Performance based compensation

- ♦ **“... the NYISO measures the real-time performance of its Regulation Service suppliers and uses it as a factor in their compensation although it measures performance as how accurately the resource responded to the NYISO dispatch signal, not how much ACE correction it provided.”**
- ♦ **“The NYISO notes that its fleet of Regulation Service providers has a significantly high performance factor, hovering around 91%.”**
- ♦ **“The purpose of regulation is to manage the deviations incurred by short-term mismatches between supply and demand, to improve system frequency, and to comply with NERC control performance standards. A compliance mechanism designed solely to move ACE to zero is too narrow and could be counterproductive during certain circumstances.”**

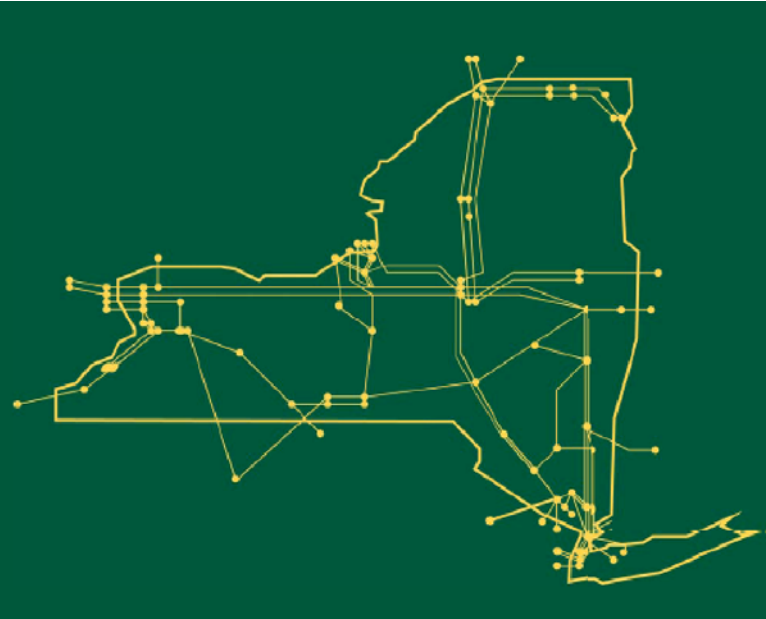
## NYISO: Provide flexibility in final order

- ♦ **“The NYISO is concerned that without an opportunity to develop solutions in a manner best suited to its region and mix of suppliers, ISO/RTOs could be required to institute compensation mechanisms that would increase costs to consumers without demonstrating that such mechanisms actually provide additional reliability benefits of equal or greater value.”**
- ♦ **“Flexible compliance opportunities should also offer ISOs/RTOs the opportunity to recognize the importance to reliability of an integrated set of regulation resources reflecting varying characteristics that include duration as well as rapidness of response in developing responsive compensation mechanisms.”**
- ♦ **“In addition, ISO/RTOs should be permitted the flexibility to ensure that their compensation mechanisms do not dissuade the participation of Demand Side Resources not capable of fast-response in the regulation market.”**
- ♦ **“To the extent that the Commission issues a rule requiring a mileage payment, ISOs/RTOs should be provided the flexibility to develop one that best suits their existing optimization and /or settlement processes. For instance, an ISO/RTO may be able to maintain an existing bidding and scheduling structure while bifurcating the settlement into a capacity and a mileage component thereby reducing the potential for needlessly difficult, expensive or complex changes.”**

# NYISO Next Steps

- ◆ **NYISO is concerned with NOPR responses which specifically indicated the NYISO markets are discriminatory and fail to provide just and reasonable compensation.**
- ◆ **Short Term Solution:**
  - *Until the FERC issues a final order providing clarification on how to dispatch and compensate regulation providers, this fall NYISO will modify its current AGC dispatch methodology and turn off the “fast first” concept.*
    - RTD would still manage LESR scheduling in its optimization.
  - *This would ensure all resources are treated equally. The NYISO will prorate its dispatch signal across all Regulation providers based on the Regulation award.*
- ◆ **Long Term Solution:**
  - *As stated in the NYISO’s NOPR response, “...the NYISO stands ready to explore additional compensation approaches depending on the Commission’s final rule.”*

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