

143 FERC ¶ 61,194
FEDERAL ENERGY REGULATORY COMMISSION
WASHINGTON, D.C. 20426

Before Commissioners: Jon Wellinohoff, Chairman;
Philip D. Moeller, John R. Norris,
Cheryl A. LaFleur, and Tony Clark.

New York Independent
System Operator, Inc.

Docket No. ER12-1653-002

ORDER ON COMPLIANCE FILING

(Issued May 31, 2013)

1. On April 30, 2012 and August 17, 2012, New York Independent System Operator, Inc. (NYISO) submitted compliance filings and proposed tariff changes to establish a revised compensation methodology governing the provision of frequency regulation service, as required by Order No. 755.¹ On November 6, 2012, the Commission conditionally accepted in part and rejected in part NYISO's filings, subject to further compliance and reporting requirements.² On January 22, 2013, NYISO submitted a compliance filing to fulfill the Commission's directives in the November 6, 2012 Order.³
2. NYISO requests that the tariff revisions it proposed in the January 22, 2013 Compliance Filing become effective on a date to be designated in a two-weeks' notice to the Commission and NYISO's Market Participants. NYISO states that the actual effective date is expected to fall between June 12 and June 26, 2013. NYISO states that a major software installation, of which the subject changes in frequency regulation service market design are a part, is currently scheduled for June 12, 2013.
3. As discussed below, the Commission accepts NYISO's proposed tariff revisions submitted in its January 22, 2013 Compliance Filing, subject to the filing conditions of this

¹ *Frequency Regulation Compensation in the Organized Wholesale Power Markets*, Order No. 755, 76 FR 67,260 (Oct. 31, 2011), FERC Stats. & Regs. ¶ 31,324 (2011), *order denying reh'g*, Order No. 755-A, 138 FERC ¶ 61,123 (2012).

² *N.Y. Indep. Sys. Operator, Inc.*, 141 FERC ¶ 61,105 (2012) (November 6, 2012 Order).

³ On November 29, 2012, the Commission granted NYISO an extension, until January 22, 2013, for submitting a filing to comply with the November 6, 2012 Order.

order, to become effective on a date, which is to be designated by NYISO in a notice filed with the Commission and provided to NYISO's Market Participants two weeks in advance of the designated effective date, but which is no later than June 26, 2013.

I. Background

A. November 6, 2012 Order

4. In the November 6, 2012 Order, the Commission found that NYISO's compliance proposal generally satisfied the requirement of Order No. 755 and was a reasonable approach to compensating resources that provide frequency regulation service.⁴ In particular, the Commission accepted NYISO's proposal for setting the Regulation Movement and Regulation Capacity prices and NYISO's proposal to apply NYISO's current method of measuring the accuracy of a resource's performance, through its performance factor, to Regulation Movement settlements. The Commission also accepted NYISO's proposal to use a performance factor to adjust day-ahead and real-time Regulation Capacity settlements. Additionally, the Commission accepted NYISO's proposal to provide a Bid Production Cost Guarantee to all frequency regulation service providers whose daily Energy and Ancillary Services market revenues do not cover the cost of their bids, including their frequency regulation service bids.⁵

5. The Commission also conditioned approval of the use of a uniform Regulation Movement Multiplier (RMM) of ten (10) and NYISO's proposed procedures to temporarily adjust the RMM on: (1) a demonstration that the use of a uniform RMM would result in the appropriate commitment and compensation of resources; i.e., will not result in under-compensation to resources that provide more movement than assumed by the uniform RMM⁶; and (2) additional information and explanation of the operational or reliability problems that would justify allowing NYISO the ability to temporarily adjust the RMM.

⁴ November 6, 2012 Order, 141 FERC ¶ 61,105 at PP 2, 56.

⁵ *Id.* P 69.

⁶ The Commission further directed NYISO to examine whether discrepancies between the assumed RMM and the actual movement that regulation resources are asked to provide impact the efficiency of the ultimate market prices paid for Regulation Movement. In this regard, we directed NYISO to file an informational report, fourteen (14) months after implementation of these market changes, analyzing its experience including the degree to which the uniform RMM accurately reflects the dispatched movement of regulation service providers and allows the market to provide appropriate incentives and cost recovery.

6. The Commission also required NYISO to demonstrate how resource response rates would be used in the selection (commitment and dispatch) of resources, and to confirm that the amount of Regulation Movement a resource can deliver in six (6) seconds is equivalent to the Regulation Movement Response Rate defined in its proposed tariff revisions.

7. Although the Commission accepted NYISO's proposal to apply its market mitigation threshold of 300 percent of reference levels to bids for Regulation Movement, the Commission rejected NYISO's proposed temporary (interim) Regulation Movement bid restriction⁷ for three primary reasons.⁸ The Commission found that NYISO failed to demonstrate that the temporary bid restriction would not dampen price signals and failed to explain why it expected total frequency regulation costs to increase. The Commission also expressed concern that NYISO's original proposal may not have allowed resources to recover their costs in all hours. The Commission acknowledged, however, that NYISO may not yet have information necessary to accurately determine the bid-based reference levels.⁹ Accordingly, the Commission required NYISO to propose tariff provisions for an interim market power mitigation method appropriate to NYISO's redesigned frequency regulation market or explain how NYISO's current mitigation methods are sufficient to address any market power concerns in this market.

8. The Commission also found that NYISO had not demonstrated that it would be in compliance with Order No. 755 regarding the treatment of opportunity costs. The

⁷ In its April 30, 2012 compliance filing in Docket No. ER12-1653-001, NYISO proposed market power mitigation measures for its new regulation service market that were based on NYISO's existing conduct and impact test for regulation service. Specifically, NYISO proposed to compare each regulation service provider's bids to the provider's reference price. NYISO stated that, pursuant to this comparison method, if there were an increase of the lower of 300 percent or \$50/MW in the Regulation Capacity bid, and an increase of 300 percent in the Regulation Movement bid compared to the reference price, the bids would be mitigated. NYISO explained, however, that it would not have reference bids for Regulation Movement bids, because Regulation Movement bids had not been used before. Thus, NYISO explained, it also proposed a temporary bid restriction on Regulation Movement bids to allow NYISO a reasonable period of time to establish reference levels for the Regulation Movement bid. *See* NYISO, Compliance Filing, Docket No. ER12-1653-001, at 9 (filed April 30, 2012) (April 30, 2012 Compliance Filing).

⁸ November 6, 2012 Order, 141 FERC ¶ 61,105 at PP 69-72.

⁹ As NYISO stated in its April 30, 2012 Compliance Filing "NYISO currently relies on bid-based reference prices to evaluate the competitive conduct of its Ancillary Service Suppliers but will need time, as much as several months, to develop Regulation Movement Bid-based reference levels." April 30, 2012 Compliance Filing at 8.

Commission noted that neither cross-product nor inter-temporal opportunity costs appeared to be incorporated in the combined Regulation Capacity and Regulation Movement bids that would be used in committing frequency regulation resources. Accordingly, the Commission directed NYISO to submit a compliance filing explaining how it will account for opportunity costs when clearing its frequency regulation market.

II. NYISO's January 22, 2013 Compliance Filing

9. In response to the Commission's directive that NYISO demonstrate that the use of a uniform RMM would result in the appropriate commitment and compensation of resources, NYISO explains that a uniform RMM treats each unit's price bid for Regulation Movement on the same, level field; i.e., a uniform RMM treats a fast responder as no more expensive than a slow responder if both have bid the same price for Regulation Movement and Regulation Capacity. NYISO also quotes Beacon Power's explanation that a resource-specific RMM may make a slower-ramping resource look artificially less expensive than a faster resource because the slower resources are providing a lower quantity of movement even if their cost per unit is higher and, accordingly, a faster resource may reasonably benefit from a uniform RMM.¹⁰ NYISO quotes Beacon Power's previous statement that it "supports NYISO's proposal to apply a uniform RMM to all resources since it allows Movement offers to be evaluated on a comparable cost per unit of [Regulation] Movement basis and thus, enables the selection of the least cost set of resources."¹¹

10. In response to the Commission's directive that NYISO provide additional information and explanation of the operational or reliability problems that could make it necessary for NYISO to immediately adjust the RMM to a temporary value, NYISO states that it is withdrawing its request, because after further consideration it does not appear that specific operational or reliability issues would require an instantly adjusted RMM. Thus, NYISO states that the proposed tariff revisions delete its earlier-proposed revision process and now set the RMM value to ten (10), to be constant over all hours, as approved by the Commission. NYISO explains that any change to the RMM value will be pursued through NYISO's stakeholder process as a tariff revision.

11. In response to the Commission's directive that NYISO demonstrate how resource response rates are used in the selection (commitment and dispatch) of resources, NYISO explains that the Regulation Movement Response Rate is not used to commit resources but is used in the dispatch of scheduled frequency regulation service providers. Specifically, NYISO explains that its algorithm for dispatching frequency regulation service providers

¹⁰ January 22, 2013 Compliance Filing at 4 (citing Comments and Protest of Beacon Power LLC, submitted September 7, 2012, Docket No. ER12-1653).

¹¹ *Id.*

allocates the megawatts needed over the next six-second interval on a pro rata basis to scheduled resources weighted by their Regulation Movement Response Rates. NYISO states that a resource with a faster ramp rate will, all other things being equal, be ready to and will be asked to provide more service at the next six-second dispatch interval. Resources that are more frequently dispatched, provide more movement, and respond more accurately to the dispatch signal, will have their greater movement reflected in their compensation.

12. NYISO also confirms the Commission's understanding that the term Regulation Movement Response Rate is equivalent to the Regulation Movement a resource can deliver in six (6) seconds, provided that it not be less than the six-second-equivalent of the response a unit can deliver in five (5) minutes (i.e., a unit's Regulation Capacity Response Rate).¹²

13. In response to the Commission's directive regarding NYISO's proposed interim market power mitigation method, NYISO proposes to use its existing mitigation conduct and impact tests,¹³ with certain modifications to the way reference levels are determined, indefinitely. Specifically, NYISO proposes to modify the manner that reference levels for Regulation Movement will be determined. NYISO explains that the preferred method for calculating an Energy or Ancillary Services resource's reference level under NYISO's current tariff is to derive the level from the resource's past bids accepted during competitive periods. However, NYISO states that, because the frequency regulation market design it crafted creates incentives different from those created by the Energy or Operating Reserves markets, even during competitive periods, frequency regulation resources have little incentive to offer Regulation Movement bids at their marginal cost. Thus, NYISO states, a reference level calculated based on a resource's accepted bids during past periods may not be a reliable indicator that a resource is bidding its Regulation Movement competitively.¹⁴ Therefore, in the absence of a Regulation Movement bid cap, NYISO proposes to remove the preference for using a resource's bids accepted during competitive periods to calculate the appropriate reference level and, instead, use one of the two other methods in NYISO's

¹² *Id.* at 2-3.

¹³ NYISO Market Administration and Control Area Services Tariff (Services Tariff), Attachment H (Market Power Mitigation Measures), § 23.3.1.2.1.2.1. This section states that NYISO will compare the bids to the reference price for each frequency regulation supplier. If there is an increase of the lower of 300 percent or \$50/MW in the capacity bid, and an increase of 300 percent in the Regulation Movement bid compared to the reference price, the bids will be mitigated.

¹⁴ NYISO refers to the testimony and example provided by Dr. Pallas LeeVanSchiack in the January 22, 2013 Compliance Filing. LeeVanSchiack Aff. at ¶¶ 18-19.

tariff for calculating a resource's reference level: (1) through consultation with the resource, or, if that is unsuccessful, (2) by using an estimate that NYISO establishes after taking into account the best information available.¹⁵

14. NYISO states that it proposes to modify section 23.3.1.4.1.3 to clarify that “[t]he reference level for a Generator’s Energy and Ancillary Services Bids are intended to reflect a Generator’s marginal costs,” and to indicate that “[r]eference levels shall also include other factors or adjustments as [NYISO] shall reasonably determine to be appropriate.”¹⁶

15. In response to the Commission’s directive to explain how it will account for opportunity costs when clearing its frequency regulation market, NYISO explains that cross-product opportunity costs are included in the day-ahead and real-time frequency regulation market prices by NYISO’s Security Constrained Unit Commitment co-optimization software when scheduling the marginal frequency regulation service provider, and that its co-optimization software solves for the lowest bid production cost of meeting all the Energy and Ancillary Services required over the relevant time period. NYISO states that inter-temporal opportunity costs are similarly accounted for in the multi-period optimization process when making its Energy versus Ancillary Services trade-off decisions.¹⁷ NYISO adds that if a frequency regulation supplier has inter-temporal opportunity costs for periods outside of the optimization horizon,¹⁸ it allows the supplier to include such costs in its Regulation Capacity and/or Regulation Movement bid.

16. NYISO also clarifies that the calculation of both the day-ahead and real-time Regulation Capacity market price is the same price calculation employed during “periods of shortage” when the price on the Regulation Service Demand Curve is used.¹⁹ NYISO states that the shadow price during periods of shortage will be the appropriate frequency

¹⁵ See NYISO Services Tariff, Attachment H (Market Power Mitigation Measures), §§ 23.3.1.4.1.3, 23.3.1.4.2.1.

¹⁶ January 22, 2013 Compliance Filing at 9.

¹⁷ *Id.* at 7.

¹⁸ NYISO uses as an example a large storage facility which could fully discharge or charge over a 36-hour period. January 22, 2013 Compliance Filing at 7.

¹⁹ By “periods of shortage,” we presume NYISO means periods when posted target levels of regulation service each hour are not met and market clearing prices are capped at certain prices on the demand curve established pursuant to section 15.3.7 of the Services Tariff.

regulation demand curve price. NYISO further states that the capacity price during periods of shortage will reflect a subtraction of the marginal resource's Regulation Movement bid.

III. Interventions and Comments

17. Notice of NYISO's January 22, 2013 Compliance Filing was published in the Federal Register, 78 Fed. Reg. 6815 (2013) with comments due by February 12, 2013. Timely Comments were filed by Beacon Power, LLC (Beacon Power), the Energy Storage Association d/b/a Electricity Storage Association (ESA), and the Indicated New York Transmission Owners (Indicated NYTOs).²⁰

18. On February 26, 2013, the Indicated NYTOs submitted an answer in response to Beacon Power's comments. On February 27, 2013, NYISO submitted an answer to the comments of Beacon Power and the Indicated NYTOs.

A. Comments

19. Beacon Power and ESA generally support NYISO's compliance filing. However, Beacon Power and ESA assert that the proposed date for implementation of these tariff revisions discriminates against Beacon Power, ESA, other Limited Energy Storage Resources, and all frequency regulation service providers in NYISO. In particular, Beacon Power and ESA state that the delayed date "is unwarranted and unfair to those entities like Beacon Power that have provided frequency regulation to NYISO since January 2011 despite being compensated in a discriminatory manner."²¹

20. As an alternative, should the Commission agree with NYISO's need to have until June 2013 to make the software changes, Beacon Power and ESA request that the Commission require NYISO to implement the software that it has already extensively tested, which is everything except the market mitigation processes, by April 1, 2013, and, if necessary, true-up the market upon determining that bids for some hours were above where they should have been.

21. Beacon Power and ESA state that they strongly support NYISO's use of unit specific Regulation Movement Response Rates as it ensures that NYISO's Automatic Generation

²⁰ The New York Transmission Owners consist of Central Hudson Gas & Electric Corporation; Consolidated Edison Company of New York, Inc.; Long Island Power Authority; New York Power Authority; New York State Electric & Gas Corporation; Niagara Mohawk Power Corporation d/b/a National Grid; Orange and Rockland Utilities, Inc.; and Rochester Gas & Electric Corporation.

²¹ Beacon Power Comments at 5-6; ESA comments at 5-7.

Control dispatch takes maximum advantage of the fast-ramping capabilities of storage resources in its market to correct Area Control Error. It also enables the NYISO to utilize those resources with the greatest speed to correct Area Control Error first, thus providing NYISO the reliability benefits of having fast, accurate storage resources in the frequency regulation market and the potential to reduce the overall Regulation Capacity that needs to be procured.

22. Beacon Power and ESA support NYISO's implementation of a RMM with a value of ten (10). They also agree with NYISO's proposal to apply a uniform RMM to all frequency regulation resources, since a uniform RMM ensures that faster-ramping resources are not artificially penalized in the market clearing process and allows Regulation Movement offers to be evaluated on a comparable cost per unit of Regulation Movement basis. Also, Beacon Power and ESA support NYISO's revision to eliminate NYISO's ability to temporarily adjust the RMM, as it will ensure that the RMM remains constant over all hours.

23. Beacon Power and ESA further agree that NYISO adequately explained how the cross-product opportunity costs of the marginal resource selected to provide frequency regulation service is included in the day-ahead shadow price for the NYISO's regulation service constraint for the given hour and the real-time shadow price of the regulation service constraint for the given real-time dispatch interval. They assert that NYISO's methodology complies with Order No. 755 because it results in the marginal resource's opportunity cost being included in the clearing price.

24. In addition, Beacon Power and ESA agree with NYISO's proposal to remove the Regulation Movement bid cap, as they assert that Limited Energy Storage Resources would not have been able to adequately recover their costs in all hours with the bid cap restriction. Beacon Power and ESA assert that NYISO's revised mitigation measures will permit adequate cost recovery for resources such as Limited Energy Storage Resources by allowing them to provide justification for their unique costs of providing frequency regulation service through an established consultation process.

25. The Indicated NYTOs also generally support NYISO's filing, but request the addition of language to clarify which costs should be included in the reference levels for Regulation Movement, as NYISO's revision to section 23.3.1.4.1.3 only states "[t]he reference levels for a Generator's Energy and Ancillary Service Bids are intended to reflect a Generator's marginal costs." The Indicated NYTOs assert that many stakeholders are confused about this, raising the potential for litigation as to the meaning of marginal costs. They also note that NYISO only proposes to add this language to section 23.3.1.4.1.3, which governs the generator consultation method for determining the appropriate reference level, and does not propose to include such language in section 23.3.1.4.2.1, which provides that NYISO itself may make the reference level determination. As a result, the Indicated NYTOs assert that which costs NYISO should include in its determination of the appropriate reference level would be unclear. Consequently, the Indicated NYTOs propose inserting the following new tariff section:

23.3.1.4.2.3 [NYISO]'s determination of the marginal cost for a generator to provide Regulation Movement performed in conjunction with section 23.3.1.4.1.3 or section 23.3.1.4.2.1 shall reflect its assessment of the incremental costs incurred by that generator if it were to follow automatic generation control base point signals, compared to the costs incurred producing the same amount of energy following real-time dispatch base point signals.²²

B. Answers

26. With respect to Beacon Power's and ESA's request to require an earlier implementation date, NYISO explains in its answer that the four- month window it requests is not arbitrary or unnecessary and that an effective date earlier than June 2013 would require NYISO to shift resources away from other software projects already in development. It asserts that such a shift in resources will compromise the quality and jeopardize the delivery date for this and other software revisions already underway or planned for completion in 2013. NYISO, therefore, urges the Commission to reject Beacon Power's proposed April 1, 2013 effective date, explaining that the previously proposed date was part of a development cycle that was well underway when the November 6, 2012 Order issued. Further, NYISO explains that, while the change in the software code may appear to be minor, its current resource estimate for developing and testing the necessary software revisions is "over 2,100 man hours."²³ NYISO urges the Commission to allow it to activate its new frequency regulation service redesign in June 2013 to avoid disrupting NYISO's compliance with Order No. 760.²⁴

27. In their answer, the Indicated NYTOs also oppose Beacon Power's and ESA's request to require an earlier implementation date or, in the alternative, to require NYISO to implement the changes to frequency regulation service without mitigation for two to three months. The Indicated NYTO's stress that Beacon Power has not provided any specifics as to how NYISO can true-up the market if it determines that some bids were above what they should have been, and that there is no good way to do so.

²² Indicated NYTOs Comments at 3.

²³ NYISO February 27, 2013 Answer at 3.

²⁴ *Enhancement of Electricity Market Surveillance and Analysis through Ongoing Electronic Delivery of Data from Regional Transmission Organizations and Independent System Operators*, Order No. 760, 139 FERC ¶ 61,053 (2012).

28. In its answer, NYISO also urges the Commission to reject the Indicated NYTOs' request to add a specific tariff provision on how the marginal costs for Regulation Movement should be calculated in determining reference levels.²⁵ NYISO asserts that the Indicated NYTOs' request is inconsistent with its existing tariff and unnecessarily limits the NYISO's administrative responsibilities for managing mitigation. NYISO states that it has been using marginal costs to develop reference levels for all products, including frequency regulation service, since 1999, and that the Indicated NYTOs have not shown that tariff clarifications are necessary. NYISO also asserts that the Indicated NYTOs' approach would adversely impact its consultations with the generators by predetermining what marginal costs can be reflected. NYISO also asserts that the Indicated NYTOs' proposed tariff language would redefine the term Regulation Movement, which could have unintended consequences in the frequency regulation service redesign. NYISO asserts that it and generators should remain free to calculate reference levels for Regulation Movement based on the marginal costs of that product, in accordance with the standard practices it currently uses to determine marginal costs for other Energy and Ancillary Services products.²⁶

IV. Discussion

A. Procedural Matters

29. Pursuant to Rule 214 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214 (2012), the timely, unopposed motions to intervene serve to make the entities that filed them parties to this proceeding.

30. Rule 213(a)(2) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.213(a)(2) (2012), prohibits an answer to a protest and an answer to an answer unless otherwise ordered by the decisional authority. We accept the answers as they have aided us in our review of NYISO's compliance filing.

B. Commission Determination

31. We accept NYISO's explanation that the use of a uniform RMM in the clearing process, combined with the use of the resource-specific Regulation Movement Response Rate in dispatch, will result in reasonable commitment of and compensation to frequency regulation resources. As NYISO explains, the uniform RMM treats each unit's offer for Regulation Movement on a level playing field for purposes of unit commitment, while the use of the Regulation Movement Response Rate in the dispatch algorithm will dispatch available resources to meet system needs. This will ensure that faster responding resources,

²⁵ Indicated NYTOs Comments at 3.

²⁶ NYISO February 27, 2013 Answer at 6-7.

which will be requested to provide more frequency regulation service, will have their greater Regulation Movement reflected in their compensation.

32. We accept NYISO's decision to delete as unnecessary its original proposal to revise its tariff to allow it to temporarily adjust the RMM. After considering the matter further, NYISO concluded that it does not appear that specific operational or reliability issues would require an instantly adjusted RMM. We agree that any proposed change to the RMM value appropriately should be pursued through NYISO's stakeholder process.

33. We also accept NYISO's revised market power mitigation proposal, as an interim measure, as further discussed below. In the November 6, 2012 Order, the Commission rejected NYISO's proposed temporary Regulation Movement bid restriction, finding that NYISO failed to demonstrate that the temporary bid restriction would not dampen price signals or explain why it expected total frequency regulation costs to increase. The Commission also expressed concern that NYISO's original proposal may not have allowed resources to recover their costs in all hours. However, while the Commission rejected NYISO's proposal to implement a Regulation Movement bid restriction as a temporary market power mitigation method, the Commission also acknowledged that "NYISO may not have information necessary to accurately determine cost-based reference levels for Regulation Movement" as part of its 300 percent threshold mitigation proposal. Thus, the Commission found that "some method for mitigating the exercise of market power could be justified during the period that NYISO develops bid-based reference levels and appropriate cost-based references."²⁷ The Commission also stated that NYISO's interim method must ensure that each individual unit will have an opportunity to recover its costs in every hour.²⁸

34. In light of this finding, NYISO now proposes to calculate reference bids by one of the two existing tariff methods that do not rely on historical frequency regulation bids, *i.e.*, either through consultation with the resource, or if that is unsuccessful, by using NYISO's own estimate. The Commission believes that NYISO's proposal to use one of the other two methods for calculating reference prices as outlined in its tariff for its conduct mitigation test is appropriate, and we will accept it as an interim measure, subject to a further compliance filing, as discussed more fully below. We note that many new types of resources may participate as frequency regulation providers, and that NYISO may lack experience with these resources' unique cost profiles and other attributes. NYISO highlights its Market Monitoring Unit's statement that NYISO's consultation process, and

²⁷ November 6, 2012 Order, 141 FERC ¶ 61,105 at P 69.

²⁸ *Id.* P 72.

NYISO's approved conduct and impact thresholds for Ancillary Services mitigation, make it unlikely that NYISO's proposal will lead to over-mitigation of competitive resources.²⁹ Thus, we expect that NYISO will implement its consultation process or its method of developing estimates of marginal costs in a manner that does not create a barrier to adequate cost recovery by such resources.

35. As we previously noted, the Commission's November 6, 2012 Order expressly required NYISO's compliance filing either to propose tariff provisions for an interim market power mitigation method appropriate to NYISO's redesigned frequency regulation market, or to explain how its existing mitigation methods are sufficient to address any market power concerns in this market during the time period required for NYISO to obtain information necessary to accurately determine cost-based reference levels for Regulation Movement. Thus, while we accept NYISO's instant market power mitigation proposal as an interim measure, we further require NYISO to submit, within fourteen (14) months of the date the instant tariff provisions are implemented, a further compliance filing containing either a fully-supported demonstration that NYISO's interim market power mitigation proposal meets the requirements of Order No. 755 and the November 6, 2012 Order as a permanent market power mitigation method, or tariff revisions proposing permanent market power mitigation measures that meet the requirements of Order No. 755 and the November 6, 2012 Order. This will allow a full year for NYISO to collect any data and operating experience with its redesigned frequency regulation market that may inform this further required filing.

36. While we acknowledge the Indicated NYTOs' suggestion that NYISO further define the types of costs that should be included as marginal costs in determining the reference levels for Regulation Movement suppliers, we are not convinced that such an exercise is necessary, or even possible, at this time. Given the diversity of resources and technologies available to supply frequency regulation service, and recognizing that NYISO has demonstrated experience using marginal costs to develop reference levels in its markets without specifically defining such marginal costs for those other products, we find that NYISO's proposal is adequate at this time and decline to require the modification requested by the Indicated NYTOs. We also believe that the Indicated NYTOs' proposed definition is so broad that it would not provide a significant degree of clarification. We also reject the Indicated NYTO's proposal to require NYISO to clarify section 23.3.1.4.2.1 as it proposes to do for section 23.3.1.4.1.3, because as NYISO indicates in its answer, the Indicated NYTOs have not demonstrated why NYISO's already established process³⁰ for determining

²⁹ January 22, 2013 Compliance Filing at 9 & n.26 (citing LeeVanSchiack Aff. at P 27).

³⁰ NYISO Services Tariff, Attachment H (Market Power Mitigation Measures), § 23.3.1.4.

reference levels for each component of a resource's bid is inappropriate when applied to Regulation Movement costs.

37. We also find that NYISO has satisfactorily demonstrated that its proposal complies with Order No. 755 regarding the treatment of opportunity costs. NYISO explains that these costs are included in the day-ahead and real-time market prices and unit commitment process for frequency regulation service. The Commission finds that this complies with Order No. 755's requirement to include opportunity costs in the unit commitment process and uniform clearing prices of frequency regulation service.

38. We acknowledge concerns raised by protesters that the proposed effective date of NYISO's implementation of its new frequency regulation pricing proposal is expected to fall between June 12 and June 26, 2013. However, we believe that NYISO has adequately explained the time it requires to implement its proposal and, therefore, we will not direct NYISO to implement its proposal sooner. NYISO explains that its software development cycle follows quarterly release dates and its current software development cycle, which is being used to manage the required revisions to the frequency regulation service market code modifications, is bundled with the software revisions that are necessary to add enhanced scarcity pricing to the NYISO's Energy and Ancillary Services markets.³¹ NYISO further explains that any revision to a market system software code has to be tested as a whole to ensure that the revisions have not introduced unintended consequences or errors. NYISO states that the estimate for developing and testing these software revisions are over 2,100 man hours. Accordingly, for these reasons, the Commission accepts NYISO's proposed tariff revisions for the new frequency regulation service market redesign to be effective on a date, which is to be designated by NYISO in a notice filed with the Commission and provided to NYISO's Market Participants two weeks in advance of the designated effective date, but which is no later than June 26, 2013.

The Commission orders:

(A) NYISO's January 22, 2013 Compliance Filing is hereby accepted, subject to the filing conditions of this order, with the proposed tariff revisions to be effective on a date, to be designated by NYISO in a notice filed with the Commission and provided to NYISO's Market Participants two weeks in advance of the designated effective date, but which is no later than June 26, 2013.

(B) NYISO is hereby directed to make an additional compliance filing, within fourteen (14) months of the date the instant tariff provisions are implemented, containing

³¹ January 22, 2013 Compliance Filing at 10. See also NYISO's February 8, 2013 filing in Docket No. ER13-909-000, as later modified May 9, 2013 in Docket No. ER13-909-001.

either a fully-supported demonstration that NYISO's instant market power mitigation proposal meets the requirements of Order No. 755 and the November 6, 2012 Order as a permanent market power mitigation method, or tariff revisions proposing permanent market power mitigation measures that meet the requirements of Order No. 755 and the November 6, 2012 Order, as discussed in the body of this order.

By the Commission.

(S E A L)

Kimberly D. Bose,
Secretary.