

I. NOTICE AND COMMUNICATIONS

All communications, correspondence, and documents related to this proceeding should be directed to the following persons and such persons should be placed on the official service list maintained by the Commission's Secretary for this proceeding:

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II. MOTION TO INTERVENE

Potomac Economics is the External Market Monitor (“EMM”) for ISO New England. In this role, we are responsible for monitoring and evaluating the performance of ISO-NE’s capacity, energy, and ancillary services markets. We also are responsible for recommending market design changes to improve the performance of the markets and evaluating design changes proposed by the ISO or market participants. As the EMM, Potomac Economics is uniquely responsible for evaluating the “quality and appropriateness of the mitigation” and ensuring the efficiency and integrity of the ISO-NE power markets.² Potomac Economics’ interests, therefore, cannot be adequately represented by any other party.

² See ISO-NE Tariff Section III.A.2.2.

Good cause also exists to permit Potomac Economics' motion to intervene out of time as it has a significant interest in this proceeding.³ Permitting Potomac Economics to intervene at this time will not prejudice any party in the proceeding as the Commission has not yet acted on the ISO-NE's filing. Potomac Economics agrees to accept the record in this case as developed to date. For these reasons, Potomac Economics respectfully requests that the Commission grant this motion for leave to intervene out of time in this proceeding.

III. BACKGROUND AND INTRODUCTION

On December 17th 2015, ISO-NE filed revisions to the rules related to resources retiring from its Forward Capacity Market ("FCM"). ISO-NE's proposal sought to address the following concerns with the current FCM rules: a) that potential new entrants are unable to apply to participate in the auction after public notice of a retirement; b) that suppliers lack the option to submit price-sensitive retirement de-list bids; and c) that suppliers may be able to exercise market power by retiring an economic resource. The ISO proposes to remedy these concerns by implementing the following three primary reforms:

- To modify the Forward Capacity Auction ("FCA") qualification timeline by: (a) requiring suppliers to submit Permanent and Retirement De-list bids in March (instead of the current deadlines of June and October, respectively), and (b) moving the Show of Interest window for new resources from February to April, which is after potential retirements are published in March.
- To enable suppliers to submit de-list bids for resources they propose to retire so that retirement decisions can be dependent on the FCA clearing price.⁴

³ See, e.g., 18 C.F.R. § 385.214(d) (2007) (requirements for motion for late intervention); *Consolidated Gas Supply Corp.*, 20 FERC ¶ 61,305, at 61,599 (1992) (factors considered by Commission in determining whether good cause exists to permit late intervention).

⁴ The supplier would retire the resource if the clearing price was less than the submitted de-list bid.

- To mitigate market power in situations where the Internal Market Monitor (“IMM”), upon review of the de-list bids, identifies a retirement to be uneconomic. Specifically, the ISO-NE proposes to limit the inflation of prices above competitive levels by use of a Commission-approved proxy de-list bid in the FCA.

The first reform will reduce barriers to competition in the FCA by allowing prospective new resources to apply to participate after a potential retirement has been announced. The processes of qualifying and obtaining necessary permits are costly, so prospective new resources are more likely to participate if they perceive that new capacity will be economic.

The second reform will enable suppliers to make economic retirement decisions contingent on the results of the FCA, allowing them to continue to operate only if it is economic to do so. By replacing the non-price retirement option with this change, this reform will also improve the ability of the ISO to identify potential withholding. By providing suppliers the ability to specify the minimum price it will require to remain in operation, the market monitors can then evaluate whether the offer price is competitive.

The balance of these comments focuses on the third and most controversial reform, which would create a mitigation measure to limit the ability of existing suppliers to exercise market power by retiring an economic resource. The current FCA rules do not have any mechanism for preventing a supplier with market power from retiring an economic resource in order to raise the clearing price above competitive levels. Other RTOs we monitor have provisions to address physical withholding through uneconomic retirements and we have recommended for the past two years that ISO-NE develop provisions that would effectively address this form of potential withholding in New England. Hence, we believe the proposed mitigation measure is needed to ensure that the FCA outcomes remain just and reasonable. However, we also identify some potential improvements that we recommend the Commission consider.

IV. COMMENTS ON THE PROPOSED PHYSICAL WITHHOLDING MITIGATION MEASURE

A. The Need for the Proposed Mitigation Measure

Mothballing or retiring existing generators can result in large price changes given the slope of the demand curves and sizes of the zones in New England. These price changes are efficient if the resource being retired is uneconomic (i.e., is more costly to remain in operation than the revenues it can earn through the ISO-NE markets). However, generators currently may retire units that are profitable to continue operating by submitting a non-price retirement request. In other words, although most other forms of withholding from the FCM are effectively mitigated, ISO-NE currently has no authority to mitigate suppliers that physically withhold capacity by retiring economic units. Therefore, it is important to understand that a supplier may have market power in the FCM and a strong incentive to engage in this form of withholding.

We illustrate these incentives with an example based on the proposed demand curve that the ISO recently proposed for Southeast New England.⁵ For the purposes of this example, we assume:

- A supplier with 1600 MW in the zone, including a 600 MW generator with an annual going-forward cost (“GFC”) of \$6.50/kW-month;
- Offers that are “non-rationable” (i.e., ISO cannot clear part of the offer);
- A capacity surplus in the zone of 30 MW (i.e., the zone would be short of capacity by approximately 570 MW without the generator);
- A capacity surplus in the system of 810 MW; and

⁵ See NEPOOL Markets Committee materials for January 12, 2016, Agenda Item #02, Indicative Demand Curve Values for FCA 10.

- Outside Southeast New England, 75 percent of the withheld capacity is replaced by new capacity offers, but no new capacity resources are offered inside Southeast New England at a price below \$12.50 per kW-month.

In this case, the competitive offer for the existing unit would be \$6.50 per kW-month and it would receive a clearing price of \$6.50 per kW-month for the zone.⁶ However, a non-price retirement request for this resource would produce the following results under the proposed sloped demand curve for the zone:

- The price would rise 91 percent to \$12.43 per kW-month.⁷
- The generator would receive \$71 million more in revenue than if it were to offer competitively and keep the unit in operation.

This example shows that suppliers in this situation have an unambiguous incentive to prematurely retire units that would otherwise be economic to continue to operate. We recognize that a more complicated array of factors may be considered in determining whether to retire a unit. Nonetheless, the fact remains that the Commission relies on competition to ensure that prices will be just and reasonable. When competition is impaired by the existence of market power, the Commission has relied on market power mitigation measures to prevent suppliers from exercising market power and producing prices that are not competitive. Conceptually, there is very little difference between this form of physical withholding and other forms of withholding that are effectively addressed by the ISO's market power mitigation measures. Therefore, it is essential for ISO-NE to have an effective mitigation measure for uneconomic retirements.

⁶ Assumes a Rest of Pool price of \$5.78 per kW-month and a congestion component of \$0.72 per kW-month for the Southeast New England zone.

⁷ Assumes a Rest of Pool price of \$6.53 per kW-month and a congestion component of \$5.90 per kW-month for the Southeast New England zone.

Other RTOs, including PJM, NYISO, and MISO, have recognized these incentives and implemented physical withholding mitigation measures that address the form of anticompetitive conduct. In general, these rules involve evaluating whether the retiring unit would clearly be economic to keep in operation. Such rules should never prevent a unit from retiring when retirement is the efficient and economic choice for the supplier. However, the rules should be effective in preventing or deterring retirements that are not economically rational for the supplier, absent the additional revenue the supplier receives from the balance of its portfolio.

Absent the introduction of similar rules in New England, we find that ISO-NE's market power mitigation rules will not be adequate to ensure that capacity market outcomes are workably competitive. Hence, we have recommended for the past two years that the ISO develop a market power mitigation measure that would address physical withholding in the form of uneconomic retirement of existing units.⁸

B. Comments on the Mitigation Measure Proposed by ISO New England

We support the ISO-NE's proposal and believe that the proposed measure is a reasonable approach to mitigating the impact of uneconomic retirements. Under the proposed measure, the Internal Market Monitor ("IMM") would review Retirement De-list Bids to determine whether they are consistent with the resource's going-forward costs. The IMM would either approve the original de-list bid or issue a recommended proxy de-list bid, which would be approved or modified by FERC. For each potential resource proposing to retire, the supplier would subsequently choose:

- a) To retire based on whether its proxy de-list bid (or, if approved, its original de-list bid) is accepted in the FCA,

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See *2014 Assessment of the ISO New England Electricity Markets*, Potomac Economics, pages 13-15 and 84-93. See *2013 Assessment of the ISO New England Electricity Markets*, Potomac Economics, page 36.

- b) To retire unconditionally, or
- c) To retire based on whether its original de-list bid is greater than the FCA clearing price.

A competitive supplier would be expected to select option “a” since that would result in units retiring that are uneconomic to remain in operation. However, if any suppliers choose “b” or “c”, the ISO proposes to run the FCA clearing engine twice:⁹

- The first run would determine the FCA clearing price using the proxy de-list bids of resources proposing to retire.
- In the second run, the ISO would: i) remove the proxy de-list bids of resources retiring unconditionally (option “b”) or resources whose original de-list bid was greater than the FCA clearing price (under option “c”).

The resources that receive a Capacity Supply Obligation (“CSO”) in the first run would be paid the FCA clearing price, while resources that received a CSO only in the second run would be paid the price resulting from the second run.

The ISO-NE’s proposal seeks to establish a process for reviewing retirement decisions that balances market power concerns with allowing suppliers to dispose of their assets as they choose. The ISO’s proposal establishes the FCA clearing price in the first run based on competitive de-list bids, thereby limiting the effects of an attempt to withhold and reducing the incentive to do so. A supplier that is unwilling to base its retirement decision on whether its resource clears in the first run of the FCA retains the ability to retire the resource under the ISO’s proposal. In this case (in which the resource proceeds to retire), the second run of the FCA essentially procures the required capacity to replace the uneconomically retired resource.

⁹ For resources under options (b) and (c), this assumes that the IMM has determined that the resource is in a portfolio that is sufficiently large to profit from withholding.

The ISO's proposal would greatly reduce the incentives to exercise market power by retiring an economic resource, but it would not eliminate them. While the ISO proposal would prevent prices from increasing in the first year that a supplier retires, the supplier may still benefit in subsequent years to the extent that less replacement capacity was procured than the size of the retiring unit. Hence, it is important for the mitigation measure to effectively deter uneconomic retirements to prevent them from occurring. To that end, we recommend the Commission consider a modification to the ISO's proposal to increase the deterrence against this type of conduct, which is described in Section IV.C below.

C. Comments on the Reasonableness of Calculating Two Clearing Prices

As discussed in Section V.B, the proposal to run the FCA clearing engine twice has led suppliers to raise concerns about the difference in the price paid to different resources for essentially the same product. NEPGA claimed that the proposal can harm the FCM by suppressing prices below competitive levels (since the price received by most resources will not reflect the resource retirements).¹⁰ NEPGA further claimed that the ISO-NE proposal is "unduly preferential and discriminatory" as it provides different compensation for resources that supply the same product.¹¹ In most contexts, we would argue that price discrimination is destructive and will not lead to efficient outcomes. However, we find the ISO's proposal to be reasonable for the following reasons.

To evaluate the reasonableness of the ISO's proposal, it is useful to compare the proposal to a conventional mitigation measure. Mitigation measures in the ISO-NE's energy markets involve modifying energy offers deemed to constitute withholding (i.e., that fail conduct and

¹⁰ See *Protest of the New England Power Generators Association, Inc.*, Docket No. ER16-551-000, P. 14.

¹¹ *Id.* at P. 15-17.

impact tests) to a competitive level. The use of these competitive mitigated offers ensures that the market outcomes are competitive.

If the ISO were to implement such an approach to mitigate inflated Retirement De-list Bids, it would produce prices that were comparable to the prices that the ISO will produce in the first run (using the proxy bids) under its proposal. Therefore, if the prices resulting from this type of conventional mitigation measure were reasonable for settling with existing suppliers in New England, then the ISO's proposal should also be deemed reasonable since the first run prices used to settle with most capacity suppliers will be comparable. However, the ISO's proposal accomplishes two things that are different from the conventional mitigation measure:

- First, it allows the supplier to refuse to accept a capacity supply obligation. Hence, the supplier can retire the unit, notwithstanding that it appears to be economic to remain in operation, without having to procure replacement capacity.
- Second, it allows the ISO to procure replacement capacity in the second run to the extent that the cost of the replacement capacity is economic (i.e., the cost is lower than the demand curve value).

These are meaningful differences. The first difference should greatly reduce concerns the proposed mitigation measure may usurp the suppliers right to decide when to retire an old unit. The second difference will lower the costs of replacing the retiring capacity. Under a conventional mitigation measure, the supplier intending to continue with a retirement would subsequently be required to buy out of its CSO bilaterally or in a future reconfiguration auction. One can think of the ISO's second run as the ISO utilizing all of the other offers made in the FCA to efficiently procure replacement capacity on behalf of the retiring supplier, but only to the extent that it has value. Hence, it is possible that the retirement of a 500 MW unit in a zone with a modest surplus to result in price increase in run 2 that cause the ISO to clear 100 MW of

additional new resources, which would only offset a portion of the retiring unit. This is an efficient outcome if the offer prices of the uncleared new resources would exceed the ISO's demand for capacity as represented by its demand curves.

Therefore, although the ISO proposal is somewhat novel in comparison to most other market power mitigation measures, we find it to be reasonable and to have some advantages over other approaches to mitigate this form of market power. However, there are three aspects of the proposed mitigation measure that could be improved, which we address in the following subsection.

D. Recommended Improvements to the Proposed Mitigation Measure

While we support ISO-NE's mitigation proposal and believe it is very important for the ISO to have a remedy for this form of market power abuse, there are three discrete changes we recommend in this section to ensure that the measure will be fully effective.

1. Allocation of Excess Costs from Run Two

We believe allowing the second run of the FCA to procure an efficient quantity of replacement capacity is beneficial. As described above, this is superior to the results of a conventional mitigation measure that would: a) cap the Retirement Delist offer price, b) cause the supplier to receive a capacity supply obligation if it clears in the FCA, and c) require the supplier to replace the entire cleared amount of the CSO if it chooses to retire. Under this type of measure, the ISO would not likely receive the most efficient replacement capacity with regard to the type, quantity, and location of the replacement resources.

However, the one advantage of the conventional mitigation measure is that the supplier that is engaged in withholding bears the cost of the replacement capacity. To restore this aspect of conventional mitigation under the ISO's proposed mitigation measure, we recommend that the Commission modify the ISO's proposal to allocate the cost of procuring additional capacity in the

second run to the suppliers that are retiring economic resources. Because there may be more than one supplier that is determined to be retiring an economic resource and the resources may be located in different areas, an allocation method would be needed to distribute the costs among multiple suppliers. We believe that the most reasonable method for this allocation is to:

- Allocate the excess costs in each zone in proportion to the quantity of proxy bids that cleared in the zone in run 1; and
- If more replacement capacity was procured in a zone than the proxy bids that cleared in that zone, the costs of the excess replacement capacity should be allocated throughout New England in proportion to the proxy bids that cleared throughout New England.

Such an allocation of costs would strengthen the ISO's proposed mitigation measure by providing a more effective deterrent against physical withholding. This additional deterrence is important because the proposed mitigation measure only eliminates the incentive to physically withhold that is associated with the revenues in the first year of the retirement. To the extent that higher prices would prevail in future years following the retirement, suppliers with market power may still have incentives to retire units that remain economic to operate.

2. Establishing a Mitigation Threshold

As various parties have rightly recognized, the methodology for constructing a competitive retirement de-list bid is a complicated exercise and includes several subjective factors that determine the resource's economics. The IMM and the capacity supplier could reasonably differ on several of the assumptions and forecasts, which can lead to different retirement de-list bid prices. The mitigation measure should allow for reasonable differences in assumptions, forecasts, risk preferences, and other uncertainties.

This is accomplished in other mitigation measures through the use of "conduct and impact" mitigation thresholds, which ensure that the conduct is a clear attempt to exercise market

power. When there is only a small difference between the IMM estimated competitive de-list bid price and the suppliers de-list bid price, the potential is substantially higher for the IMM to intervene and mitigate conduct that is not actually an exercise of market power. This is costly because inappropriate intervention would distort market outcomes and infringe on the economic property rights of the supplier. Therefore, in order to balance this concern with the need for effective mitigation of this form of physical withholding, we recommend that the Commission establish a mitigation conduct threshold of 15 percent of the competitive bid price level (i.e., the proxy de-list bid price). In other words, we would recommend that suppliers not be mitigated if their original de-list bid price is less than 15 percent higher than its proxy de-list bid price. Such a threshold would make reasonable allowance for: (i) differing expectations regarding the future drivers of value; and (ii) differing risk preferences/tolerances. This is especially important given the uncertainties associated with the fact that the old resource must remain in operation for an additional three years before the delivery period begins.

Finally, this change would address NEPGA's concern that the proposed mitigation measure may lead to over-mitigation and distort the market outcomes. NEPGA argues that the decision to retire a resource is a complex and imprecise exercise that is materially different from short-term withholding. NEPGA argues that the ISO's proposal would skew the market outcomes since the de-list bids submitted by suppliers, though reasonable and plausible, would be replaced by "lower, administratively-calculated bids".¹² Utilizing a mitigation threshold, such as the one we propose, would help ensure that no "reasonable and plausible" de-list bids would be mitigated.

¹² *Id.* at P. 12.

3. Adjustment to the Portfolio Test

The ISO proposes a portfolio test be applied to determine whether suppliers seeking to retire unconditionally would benefit from the increase in prices resulting from the retirement. The benefit is proposed to be calculated based on the suppliers remaining portfolio. We support this test, but believe it should also include revenues the supplier may receive through physical or financial contracts that would be affected by the change in the FCA clearing price. This will allow the results of the portfolio test to more accurately indicate when a supplier may have the incentive to retire a resource uneconomically. Therefore, we recommend that the Commission modify this aspect of the proposed portfolio test.

V. CONCLUSIONS AND RECOMMENDATIONS

Although the current FCM rules include a robust process for the ISO to evaluate non-retirement de-list bids of existing suppliers, there are no mitigation measures to protect the market against a supplier that exercises market power by retiring an economic existing resource. The ISO has proposed a reasonable mitigation measure that would protect the market while preserving the rights of a resource owner to retire the resource if it so desires.

Although we support the ISO's proposal, we respectfully recommend that the Commission mandate three incremental changes that would improve the effectiveness of the proposed mitigation measure

1. We recommend the ISO allocate the additional costs of procuring capacity to the retiring supplier when the resource in question was economic based on its competitive, Commission-approved proxy de-list bid.
2. We recommend the ISO institute a threshold in the ISO's evaluation of the original de-list bid so that mitigation would only be imposed if the original de-list bid exceeds the ISO's competitive estimate by 15 percent or more. Such a threshold would make reasonable allowance for differing expectations and risk preferences of the supplier.

3. We recommend that the Commission augment the proposed portfolio test to include incremental revenues that may result from the higher FCA prices that derive not only from its portfolio of generation assets, but also from its other physical and financial positions.

WHEREFORE, for the foregoing reasons, Potomac Economics, Ltd. respectfully requests the Commission to grant its motion to intervene in this proceeding and consider these comments.

Respectfully submitted,

/s/ David B. Patton

David Patton, President
Potomac Economics, Ltd.

CERTIFICATE OF SERVICE

I hereby certify that I have this day e-served a copy of this document upon all parties listed on the official service list compiled by the Secretary in the above-captioned proceeding, in accordance with the requirements of Rule 2010 of the Commission's Rules of Practice and Procedure (18 C.F.R. § 385.2010).

Dated this 1st day of February, 2016 in Fairfax, VA.

/s/ David B. Patton
