



Capacity Market (“FCM”), as well as issues raised by the ISO-NE Internal Market Monitoring Unit (“INTMMU”) in an initial assessment of the FCM filed on June 5, 2009 (“the INTMMU Report”).<sup>2</sup> The INTMMU Report provided an overview of the FCM design and an analysis of the first two outcomes of the Forward Capacity Auction (“FCA”). The INTMMU Report included recommendations regarding the modeling of capacity zones, various pricing issues, and the obligations of demand response resources. In response to these recommendations, ISO-NE filed proposed changes to the ISO-NE Transmission, Markets, and Services Tariff (“Tariff”) governing the FCM on February 22, 2010.<sup>3</sup>

Intervention is appropriate where the movant may be directly affected by the outcome of the proceeding and has a direct interest in the same that cannot adequately be represented by any other party.<sup>4</sup> Potomac Economics’ intervention and participation is in the public interest. As the ISO-NE’s External Market Monitoring Unit, Potomac Economics is required under the provisions of the ISO-NE Tariff to monitor and evaluate the market outcomes and market rules to promote the efficiency and competitiveness of the ISO-NE markets. Potomac Economics may also be bound or adversely affected by the Commission’s actions herein. For these reasons, Potomac Economics respectfully requests that it be permitted to intervene in this proceeding with full rights as a party hereto.

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<sup>2</sup> “Internal Market Monitoring Unit Review of the Forward Capacity Market Auction Results and Design Elements,” ISO New England, Inc. Market Monitoring Unit (June 5, 2009).

<sup>3</sup> *ISO New England, Inc. and New England Power Pool, Various Revisions to FCM Rules Related to FCM Redesign*, Docket No. ER10-787- 000 (February 22, 2010).

<sup>4</sup> *See* 18 C.F.R. § 385.214(b)(2)(ii).

### **III. INTRODUCTION AND SUMMARY**

The Forward Capacity Market was proposed by ISO-NE and subsequently approved by the Commission in 2006. It established a new market mechanism to attract and maintain sufficient resources to satisfy New England's long-term resource planning requirements in an efficient manner. The pricing and modeling issues raised by ISO-NE in this filing play a key role in allowing the FCM to meet this objective. Two particularly important FCM provisions that ISO-NE proposes modifying in its filing relate to the Alternative Price Rule ("APR") and the modeling of capacity zones.

In response to letters from a number of NEPOOL participants requesting that the EMMU provide an evaluation of the proposed APR and capacity modeling provisions of the FCM, we are reviewing these provisions and plan to provide the results of this review in our 2009 Market Assessment to be published this spring. These present comments provide our initial review of the ISO-NE proposals.

Based on our initial review, we find that the ISO's proposed changes to the FCM will improve the performance of the market by increasing the efficiency of FCM prices. However, there remain certain elements of the FCM design that interfere with a fuller realization of its efficiency objectives. These relate to both the APR and to the local sourcing requirements for capacity zones in New England. In particular, we are concerned about the treatment of rejected delist bids in APR-1 and APR-3 and we recommend that the Commission not approve these two changes. The improved harmonization of the reliability requirements and market requirements that should result from a stakeholder review process should eliminate the asserted need for these provisions.

However, even with the improvements contained in the ISO's amendments, the FCM will not fully satisfy the proposed objectives. Therefore, we strongly support the ISO's stated

intention to continue to work with its stakeholders to develop long-term solutions in these areas. However, given the importance of these provisions to the competitiveness and efficiency of the FCM, we recommend that the Commission establish a specific timetable for this process and mandate that the ISO file proposed solutions at the end of this process. Furthermore, we believe there are important connections between certain FCM design proposals and market monitoring and mitigation provisions and this should also be addressed in the stakeholder process.

#### **IV. ALTERNATIVE PRICE RULE AMENDMENTS**

The Alternative Price Rule (formally known as the Alternative Capacity Price Rule) is intended to protect the FCM prices from the distorting effects of out-of-market (“OOM”) capacity. OOM capacity generally refers to the capacity offered in the FCM that earns “OOM” revenues through mechanisms that are not generally available to comparable units in the New England Control area, such as long run capacity contracts or reduced taxes. When a capacity resource enjoys access to these other revenue sources, the amount it will accept to enter the FCM will be lower than that required by a comparable entrant that has no access to such OOM revenues. This is because the price the OOM entrant is willing to accept for capacity market obligations (given expectations for energy and ancillary services revenues) is lower due to the OOM revenues.

OOM capacity can lead to a clearing price in the FCA that is inefficiently low. This lowers capacity prices for all other new and existing resources, distorts price signals, and, therefore, adversely affects investment and retirement decisions in both the short-run and long-run. In the short-run, it can cause offers from new resources to not be accepted in the capacity market that would otherwise have been accepted and resulted in new capacity being built. In the long-run, the price effects of uneconomic entry create substantial risk related to future capacity revenues that would reduce the incentives of investors to enter the New England market. This is

a significant issue that has been recognized by other ISOs as well -- both PJM and the New York ISO have capacity market rules to address OOM investment. The APR mechanism in New England is designed to address these effects by adjusting the forward capacity price to reduce the price effects of the OOM capacity.

In January 2010, we received a letter from the New England Power Generators Association (“NEPGA”) and a letter from a smaller group of New England generators (calling themselves the “Indicated Generators”), some of whom also belong to NEPGA. Both of these letters requested that Potomac Economics, as the EMMU, conduct an independent analysis of the proposed amendments to the FCM rules in accordance with section 10.4.2 of the New England Power Pool (“NEPOOL”) Participants Agreement. Under section 10.4.2, NEPOOL participants can request the EMMU to exercise its discretion to analyze and comment on important market-related issues. The NEPGA letter requested that we evaluate the proper design of the APR. The letter by the Indicated Generators asked that we evaluate the proposed changes to the modeling of zonal capacity and the associated pricing rules for such zones.

We have agreed to conduct the requested analysis and anticipate advising ISO-NE and the various stakeholders on these issues. These present comments represent an initial analysis to establish principles to guide market design changes relating to FCM pricing and to identify specific areas where stakeholders may focus attention. In this Section, we address the NEPGA letter requesting analysis of the APR. We address the zonal capacity issues raised in the letter from the Indicated Generators in Section V, below.

#### **A. Design Principle for Alternative Price Rules**

As discussed above, APR seeks to protect the FCM prices from the distorting effects of OOM capacity. To evaluate the proposed APR or any future changes in the FCM rules to

address OOM capacity, it is important to establish an objective that is based on sound economic principles.

In this case, the focus is on establishing prices in the FCM that will facilitate efficient decisions to invest in, retire, and maintain capacity in New England, as well as to import or export capacity to or from New England. Such prices should be set by the marginal cost of supplying capacity by the marginal supplier, whether the marginal supply is a new resource or an existing resource. OOM capacity can distort these prices by shifting the supply in the FCA such that a bid with a substantially lower bid price becomes the marginal supply and sets the clearing price.

Hence, the practical objective of the APR or similar provisions would be to minimize the price effects of OOM capacity without undue increases in consumer costs. This is the objective we will use to evaluate the rules that seek to address OOM capacity, although a second objective that could be considered is whether the proposed provisions work to deter entry of OOM capacity into the region.

#### **B. Background on the FCM and the Proposed APR Amendments**

The Alternative Pricing Rule Amendments proposed in the February 22, 2010 filing by ISO-NE are referred to as APR-1, APR-2, and APR-3. Each is a modification to the existing APR which, as described above, seeks to ameliorate price distortions in the FCM resulting from OOM capacity.

The FCM is cleared using a uniform-price, descending- clock auction. The essentials of this mechanism are as follows: All existing New England capacity participates in the FCM. Participants with existing capacity may bid to “delist”, indicating the minimum price it would

accept to remain under the FCM obligations. New capacity makes “offers” into the FCM, indicating the price it requires to enter the market.<sup>5</sup>

These FCM supply bids and offers are stacked in ascending order and the price is reduced until the total quantity of supply willing to sell at the prevailing price equals the forward capacity requirement (or until the price reaches the floor price). This price is paid to all remaining bids and offers. The auction results in an efficient allocation when all new capacity offers and all delist bids are “competitive.” The term “competitive” in this context generally means that offers for new capacity reflect the payment necessary to earn just enough in the auction (recognizing expected energy and ancillary services revenues) to cover annualized entry costs. For existing units, a competitive delist bid is one that will reflect the benefits of or cost avoided by delisting the unit. Depending on the unit, this may be:

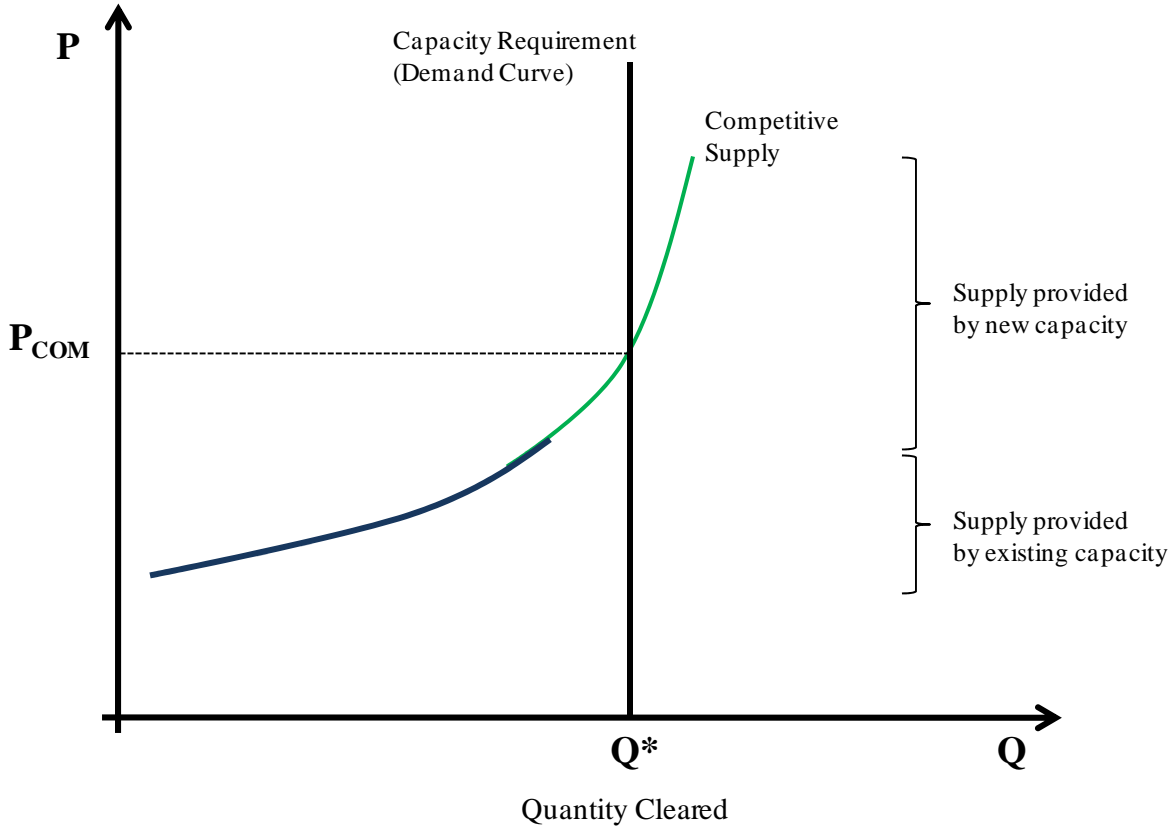
- The going-forward cost that can be avoided by retiring the unit minus the expected net revenues from the energy and ancillary services markets;
- The going-forward cost that can be avoided by temporarily shutting the unit down (“mothballing”) minus the expected net revenues from the energy and ancillary services markets;
- The expected revenues of selling the delisted capacity in the neighboring market; and
- The value of the Peak Energy Rent adjustment that is avoided by delisting.

These competitive bids and offers result in an efficient outcome because they accurately reflect the marginal cost of satisfying New England’s reliability requirements. Figure 1 shows a graphical depiction of the FCA.

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<sup>5</sup> Both the delist bids and new capacity offers essentially are offers to supply, but we refer to them as bids and offers in order to retain the language used to describe the FCM in the ISO-NE Tariff.

**Figure 1: Clearing the Forward Capacity Auction (Competitive Case)**



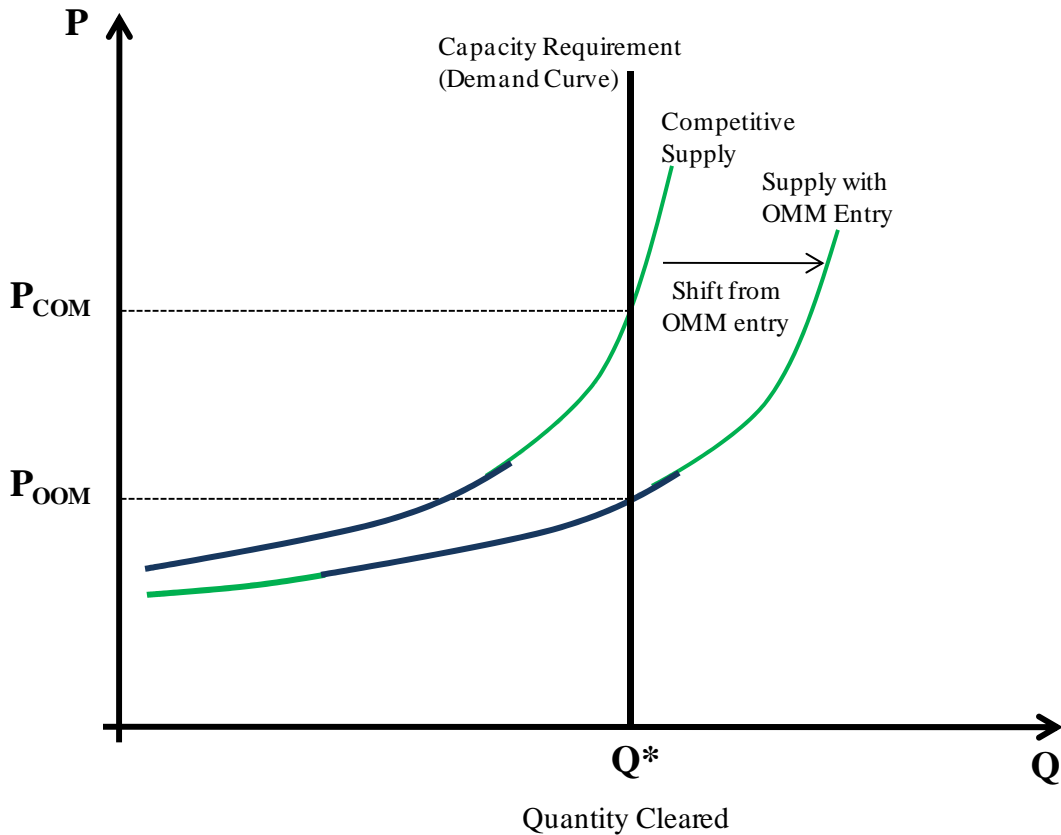
In the figure,  $P_{COM}$  is the competitive price and  $Q^*$  is the cleared capacity. As the figure shows, the auction mechanism can be illustrated in the standard supply-demand framework. Demand is depicted as a vertical curve due to the fact that it essentially remains unchanged regardless of the price.<sup>6</sup> The supply curve is relatively flat for the initial quantities of capacity because many resources essentially participate in the market regardless of the clearing price, indicating that they will supply even at a relatively-low clearing price. The higher-priced green segment at the top of the supply curve represents the supply offers from new resources. The intersection of the supply curve and the vertical demand curve establishes the clearing price.

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<sup>6</sup> We recognize that at sufficiently high prices, the demand curve is such that slightly less quantity may be demanded. However, there is no loss of the fundamental concepts by ignoring that subtlety.

The APR addresses the situation where a supplier in the FCM receives OOM revenues. In such a case, the supplier's offer will be affected by this additional OOM revenue, which will tend to result in an offer that is less than the amount that would fully support the resource. Figure 2 shows the effect of OOM entry on the supply curve and the FCA clearing price.

**Figure 2: FCA Clearing with Out-of-Market Entry**

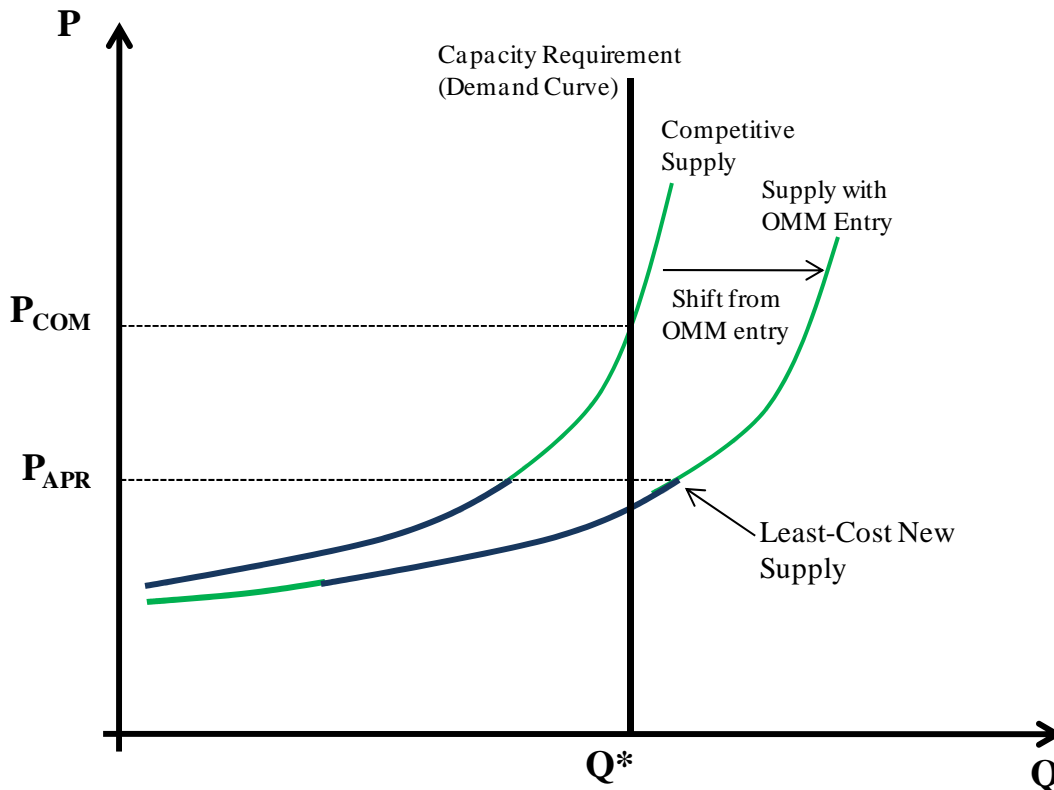


In the figure, the abbreviations are the same as in the previous figure, but we add  $P_{OOM}$  to represent the price after OOM entry. Because the OOM entry is likely to be at offers that are at the low end of the supply curve, the effect of OOM entry on the supply curve is represented as a shift to the right. From Figure 2, one can see that to negate the price effects of OOM entry, the auction price would need to be recalculated with only “in-market” resources.

The APR is generally designed to correct (at least partially) for the price impact of the shift in the supply curve shown in Figure 2. As currently designed, APR is invoked when: a) new capacity is needed in the FCM, and b) OOM entry completely satisfies this new capacity need. In this case, a new resource would be expected to set the price in the FCA, but the OOM capacity would cause existing resources (or OOM resources) to set the price.

When APR is applicable, the clearing price is re-set to the lower of two values. The first value is the Cost of New Entry (“CONE”), which is a value defined under the ISO-NE Tariff. CONE is derived from past FCA clearing prices when new capacity was needed. This methodology is intended to provide an accurate estimate of the net entry costs for new resources. The second value is the lowest offer among the group of offers by new entrants that was rejected in the auction. Figure 3 is a graphical representation to help illustrate the APR pricing rule.

**Figure 3: Pricing under the APR**



The figure is the same as Figure 2, except that it shows the price that would be set under the current APR rules. The right-hand supply curve in Figure 3 shows the effect of OOM entry. Like in Figure 2, this is represented as a rightward shift because OOM resources are likely to be offered at the low end of the supply curve. Figure 3 also shows the lowest-cost competitive entrant not selected in the auction. In this example, none of the competitive entrants cleared in the auction because the OOM entry was enough to fill the entire new capacity requirement. This means the lowest-cost competitive entrant is simply the lowest point on the top segment of the supply stack.<sup>7</sup> Because the APR chooses the lower of CONE and the offer of the lowest-cost competitive entrant not cleared in the auction,  $P_{APR}$  in the figure represents the maximum possible price under the current APR. The following sections describe the proposed amendments to the APR.

### **C. Alternative Price Rule 1 (APR-1)**

APR-1 is a modification to certain elements of the existing APR. It is revised in two regards. First, recall that APR is triggered when new capacity is needed (and the OOM entry is sufficient to satisfy this need). Under the current APR, this capacity deficit was measured without considering that some capacity may permanently delist as a result of the FCA. When this happens, the actual need for new capacity increases. Hence, the first primary change reflected in APR-1 is to include cleared permanent delist bids in the determination of whether new capacity is needed and, consequently, whether APR-1 is triggered. This is a reasonable change and will improve the overall APR.

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<sup>7</sup> When all competitive entrants offer at costs above the highest-cost of existing capacity (as depicted in the figure), the lowest-cost competitive entrant not cleared will always be the lowest-cost competitive entrant in the auction. This is because APR is invoked when OOM capacity completely satisfies the new capacity need. If it happens that some existing capacity offers at higher costs than new competitive entrants, it may be that some competitive entrants clear in the market and the lowest-cost competitive entrant not cleared is not the lowest-cost competitive entrant in the FCM.

The second primary change to APR-1 is in the definition of OOM capacity. OOM capacity is generally capacity that earns revenues from sources that are not available to other comparable capacity sources in the region. The proposed amendments would include in the OOM category capacity that would have been delisted in the FCA, but was required to stay in operation to maintain reliability. These are referred to as “rejected” delist bids. The ISO argues that these rejected delist bids have the same effects on prices as OOM capacity so they should be treated the same. As described in the section below that reviews the APR-3 proposal, we believe that rejected delist bids are fundamentally different than OOM capacity and should not be treated similarly. Therefore, we do not believe this second change represents an improvement in the APR rules.

**D. Alternative Price Rule 2 (APR-2)**

APR-2 improves on the existing APR by considering the fact that the price effects of a large quantity of OOM capacity in one period may carry over to multiple periods. In other words, large quantities of OOM capacity may not only eliminate the need for new capacity in the current auction, but also in future auctions. This issue was identified in the INTMMU Report. APR-2 is designed to address these price effects. APR-2 is triggered when there is no new capacity need in a given period only due to the OOM capacity in the previous periods. Once triggered, the current “lower-of” APR pricing methodology applies that is described above. This rule change is reasonable because it prevents a large entry of OOM capacity in one period from distorting prices for multiple periods.

**E. Alternative Price Rule 3 (APR-3)**

The third main change to the APR is reflected in APR-3. APR-3 addresses the price effects of delist bids rejected for reliability in circumstances when new capacity is not needed

(even after removing OOM capacity carried forward from a previous period). Under the current APR, a rejected delist bid reduces the amount to be procured in the auction and, as such, it is essentially treated as a \$0 bid. This increases the supply in the auction and reduces the FCM clearing price. When APR-3 is triggered, the capacity prices are restated to minimize the price effects of the rejected delist bids.

In assessing the virtues of APR-3, one must understand the circumstances that trigger the rule. The rule is triggered because there are permanent delist bids rejected for reliability reasons, which implies that a local reliability requirement was not modeled in the FCM auction. In a well-functioning capacity market, the requirements of the market would be consistent with the reliability needs of the system. In other words, the FCM requirements would satisfy the planned reliability needs of the system. If this ideal could be realized, there would be no need to reject a de-list bid because the market would recognize that the resources are needed for reliability and the supply associated with the resources would be “in-market” not out-of-market. Therefore, the fact that a de-list bid is rejected for reliability indicates that there is an un-modeled reliability requirement.

In early FCAs, the un-modeled reliability requirement reflected the zonal needs in Connecticut and Boston. If the zones had been modeled properly, the market would have retained the resources needed for reliability, setting a higher price in the zones and a lower price New England-wide. This lower price in New England is efficient and should not be adjusted. The proposed provision to adjust prices to negate the effects of rejected delist bids is premised on the assumption that the lower resulting prices are inefficient and inconsistent with a properly functioning market. We do not believe that this is generally true.

Of course, in a well-functioning market (where the zonal requirements are modeled) the price would be higher *within* the zone. In which case, the ISO's proposed price adjustment would move the prices in the right direction inside the zone (i.e., higher). However, adjusting prices market-wide to improve the price in a limited area is not the preferred solution. In this case, it is far better to include the reliability requirements to the market by modeling the zones. In the longer-run, more complete modeling of the system's requirements would be beneficial and our comments will recommend that the stakeholders and ISO consider further changes to the FCM rules consistent with this objective.

In the short-run, however, we recommend that the Commission not approve APR-3. There is only one case we can identify where a capacity price adjustment would be efficient. That is when the ISO uses discretion to reject a de-list bid that would not have been rejected, even if the reliability requirement had been fully modeled. This could happen if the ISO is conservative and rejects the delist bid in response to a potential risk, such as the risk that a planned investment will not be completed on schedule. In that case, the well-functioning market would have allowed the resource to de-list and the ISO's rejection of the de-list bid artificially increase the supply and lower prices.

It seems unlikely that a large share of the rejected de-list bids would be the result of this type of discretionary determination. However, if the ISO believes that this will be the case, perhaps APR-3 could be scaled-back so that it only applies under these circumstances.

#### **F. Overall Conclusions regarding the APR Amendments**

As discussed above, the proposed amendments to APR as manifested in APR-1 and APR-2 are changes that generally improve the efficiency of the FCM by reducing the adverse price effects of OOM entry. In general, the changes cause the APR adjustments to account for a

broader range of circumstances when OOM capacity can affect prices. These are improvements in the current APR rules. However, if judged against the objective of the APR rules to minimize the price effects of OOM capacity, the APR provisions fall well short for at least four reasons:

- The APR does not trigger when new capacity is not needed, or when the OOM quantity is less than the amount of new capacity needed. In both cases, the OOM capacity can substantially lower prices while no APR adjustment will occur.
- The APR adjustment only occurs when the OOM capacity exceeds the entire demand for new capacity. Again, the OOM capacity may be substantially affecting price when this criterion is not satisfied.
- The APR pricing provision to set the price at the lower of CONE or the lowest-cost uncleared new supply offer may result in a price that is substantially lower than the new supply offer that would have actually cleared and set the FCA price absent OOM capacity.
- The proposed changes to the APR provisions would treat rejected delist bids as OOM capacity, which is not supportable.

The ISO acknowledges in its filing that additional work is needed on these provisions and proposes an 18-month process to consider further changes with its stakeholders. Due to the importance of these issues, we recommend that the Commission reject the portions of APR-1 and APR-3 that would treat a rejected delist bid as OOM capacity for the reasons described above. Additionally, we recommend that the Commission establish a shorter timeframe for the ISO to develop long-term solutions in this area, including solutions to address the OOM capacity issues that are currently addressed by the APR. We believe 9-12 months is a reasonable timeframe.

In this proposed stakeholder process to develop long-term solutions in this area, it is important for the ISO to consider whether the fundamental objectives of the APR can be satisfied by making incremental changes to the APR rules, or whether the most effective long-term solution involves replacing the APR. If the APR framework is retained, the ISO should re-evaluate the “lower of” pricing approach under APR-1 and APR-2.

## **V. Zonal Capacity Modeling**

As introduced above, the FCM allows capacity zones to form within New England to account for reliability needs that require a minimum level of capacity to be located within the zone. Currently, capacity zones are established only when a projected shortage of capacity exists in any of a number pre-defined areas corresponding to existing energy Load Zones. This determination is made prior to the FCM auction. When a capacity zone is modeled, “price separation” may occur whereby certain units within the capacity zone may be selected to supply forward capacity within that zone at a zonal clearing price that exceeds the clearing price in the rest-of-the market. If a zone is not formed based on this *ex ante* accounting, the ISO may have to “reject” a delist bids from resources that are needed to satisfy the reliability requirements for the zone. This occurs when the delist bids are higher-priced than the system-wide clearing price.

In the January 25, 2010 letter from the Indicated Generators (introduced above), we were asked to evaluate the proposed changes relating to the definition of and pricing within capacity zones. We have agreed to evaluate these issues and will advise the ISO and stakeholders. In these comments we propose the key objective that should guide the evaluation in this area and propose some initial issues on which stakeholder discussions could be focused.

From an efficiency perspective, the market requirements should reflect the reliability requirements to the maximum extent that is feasible, although market power must be considered as we discuss below. This consistency between the market requirements and reliability

requirements is important because it will cause the market to produce price signals that reflect the costs of satisfying these requirements and ensure that the requirements are satisfied over the long-term.

The issues that arise in evaluating the current FCM rules can be traced to the fact that capacity zones are formed only some of the time when they may be warranted. This has been evidenced in the early FCAs by the fact that the ISO has rejected delist bids in both Connecticut and Boston areas when the zones were not triggered. The primary reason for the triggering criteria that are used under the current design is determine when a capacity zone will be modeled is related to market power. When a capacity zone is modeled, certain suppliers within the zone may be pivotal and have market power in the zone because they do not face competition from out-of-zone resources. Therefore, once a zone forms, a supplier with market power may be able to raise price, subject only to broad mitigation measures, as discussed below. Therefore, one could conclude that the triggering criteria for capacity zones under the current FCM rules primarily serve a market power mitigation function.

The proposed amendments are meant to broaden the range of circumstances when a capacity zone will be triggered and thereby improve the consistency between the capacity market and the reliability requirements. The primary change is to exclude certain capacity from the accounting made prior to the auction. Under the current rules, all existing capacity in the potential zone is compared to the zonal requirement. If the existing capacity is less than the zonal requirement, then the capacity zone is modeled in the auction. Under the amended rules, the existing capacity amount used for this comparison is reduced by subtracting two categories of bids from the total existing supply in the zone. The first category of bids includes Non-Price Retirement Bids and Permanent De-list Bids, which are resources that cannot participate in the

capacity market once their bids are cleared (i.e., cleared for retirement or delisting). According to the ISO's filing, capacity associated with these bids is removed because, if such a bid is cleared, it results in a resource not being able to participate in the capacity market in the future. Hence, according to the ISO, this makes it unlikely that such bids would be used for withholding capacity because the cost of withholding is high – the resource is permanently prohibited from capacity market participation. The second category of bids include all other delist bids from “non-pivotal” suppliers. “Non-pivotal” means the capacity of these individual suppliers is not needed to meet the zonal requirement. Non-pivotal suppliers are not likely to have market power and, therefore, not likely to engage in withholding. Because the Non-Price Retirement Bids and the Permanent De-list Bids and the bids of non-pivotal suppliers are removed for the *ex ante* capacity accounting used to establish a capacity zone, the likelihood that a capacity zone is modeled will increase. This increases the harmonization between the capacity market and the reliability requirements and, therefore, is in accord with the objective we propose above -- that the FCM market requirements reflect the system's reliability requirements.

While the proposed amendments improve the consistency of the market and reliability requirements, there will remain instances when a capacity zone may not form even when there is a need for local resources to meet reliability at a cost higher than the market-wide clearing price. This can occur when the FCA results in a price that clears delist bids within the zone during the auction at a level sufficient to create a need to reject some of these bids in order to satisfy reliability. This will result in the attendant price distortions as discussed above.

Hence, while the amendments improve the FCM design, more is needed to allow the prices in capacity zones to more fully reflect the system's capacity needs. In particular, the objective articulated in this section would be satisfied if the zones were always modeled (i.e., the

triggers were eliminated). As discussed above, however, this may raise market power concerns that are not fully addressed by the current mitigation measures. However, we would generally recommend improving the mitigation measures as necessary, rather than mitigating market power by adjusting the market design (i.e., by not always modeling the zones). The market power mitigation measures are discussed in the next section.

## **VI. Enhanced Market Power Mitigation in Local Capacity Zones**

As discussed in the previous subsection, market power concerns underlie the reluctance to completely harmonize the FCM with the reliability requirements of the system.<sup>8</sup> For example, because modeling a capacity zone can raise market power concerns, the ISO's proposal excludes delist bids from pivotal suppliers in the revised *ex ante* test that triggers the modeling of the zones. Similarly, some of the APR provisions are influenced by market power concerns. The following are relevant questions in evaluating these market design choices:

- Are the existing mitigation measures adequate and effective?
- If not, is it preferable to modify the mitigation measures to make them effective or to adjust the design of the market to address the market power concerns?

To begin to answer these questions, we review the primary mitigation measures in the current FCM rules. The most important provision is the review of bids by the Internal MMU that begins at 80 percent of CONE. Dynamic delist bids must be less than 80 percent of CONE and other delist bids must be reviewed by the ISO if they exceed 80 percent of CONE.<sup>9</sup> This rule establishes a safe-harbor for delist bids at or below 80 percent of CONE. To evaluate the effectiveness of the mitigation measures, a principal issue to consider is whether this 80 percent

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<sup>8</sup> INTMMU Report, p. 42.

<sup>9</sup> *Ibid.*, p.21.

level allows suppliers with market power too much latitude to raise prices. We believe that this 80 percent threshold is too high to be fully effective in mitigating the substantial market power that likely exists in the local capacity zones. Further, the standard of review for delist bids above 80 percent of CONE may not be fully effective in requiring that the delist bids be competitive. It is not surprising, therefore, that the market design has been compromised to more fully mitigate this market power.

If it is true that the market power mitigation measures are not fully effective, we believe that wherever possible the market power concerns should be addressed by improving the mitigation measures rather than by altering the market design. Altering the market design to address market power frequently will result in unnecessary economic inefficiencies. Notice from APR-3, for example, the complications that arise due having to accommodate rejected de-list bids. If capacity zones were allowed to form freely and be modeled, the incidence of rejected bids would be reduced, if not altogether eliminated. This would remove entirely the need for APR-3.

The New York ISO experienced similar market power issues in its New York City capacity zone. In the NYISO capacity market, the New York City zone is always modeled in accordance with existing reliability requirements. Significant market power issues have arisen because supply is concentrated and there is more than one pivotal supplier in the zone. However, the NYISO implemented market power mitigation that has been fully effective in addressing the market power concerns and ensuring competitive outcomes. Hence, no compromises in the design of the market or in the market rules were necessary.

Because the current mitigation measures are not likely to be fully effective in mitigating the market power, we recommend that the ISO and its stakeholders address these market power

mitigation issues as they consider the long-term changes that are warranted in the APR and zonal modeling provisions. It is important that these issues be addressed together to ensure that the overall FCM framework will lead to competitive and economically efficient outcomes.

As the ISO and its stakeholders undertake to evaluate and consider changes to the market power mitigation measures, it is important that these measures allow suppliers to submit delist bids that fully reflect their marginal costs of supplying capacity. For existing units, these marginal costs include:

- The going-forward cost that can be avoided by retiring or permanently delisting the unit minus the expected net revenues from the energy and ancillary services markets;
- The going-forward cost that can be avoided by temporarily shutting the unit down (“mothballing”) minus the expected net revenues from the energy and ancillary services markets;
- The expected revenues of selling the delisted capacity in the neighboring market; and
- The value of the Peak Energy Rent adjustment that is avoided by delisting.

However, it is important for the market power mitigation measures to recognize that these types of costs do not apply in the same manner to all existing units. For example, the going-forward costs associated with a retirement are only applicable for resources that are likely to be retired. For most units that are economic to remain in operation, the relevant costs would be limited to opportunity costs of exporting the capacity and the economic value of the Peak Energy Rent adjustment (and other FCM obligations). The ISO should consider these issues as it considers further changes to the APR and zonal modeling provisions.

## **VII. Conclusion**

These comments addressed two main areas of the ISO-NE’s proposed changes to FCM design: APR provisions and the provisions governing the formation of capacity zones. We propose general objectives in these areas based on sound economic principles. These objectives

should guide the assessment of FCM rules in these areas. Most of the changes proposed by the ISO in its filing are clear improvements and should be approved by the Commission. However, we identify two proposed changes that we do not believe would be beneficial. These changes relate to the treatment of rejected delist bids in APR-1 and APR-3. We recommend that the Commission not approve these two changes. The improved harmonization of the reliability requirements and market requirements that should result from the review process recommended below should eliminate the asserted need for these provisions.

Finally, even with these changes, the FCM will not fully satisfy the proposed objectives. Therefore, we strongly support ISO-NE's stated intention to continue to work with its stakeholders in order to develop long-term solutions in these areas. However, given the importance of these provisions to the competitiveness and efficiency of the FCM, we recommend that the Commission establish a specific timetable for this process and mandate that the ISO file proposed solutions at the end of this process. We believe that 9 to 12 months is a reasonable timeframe for this process. In addition to the APR and zonal modeling issues, we believe it is important to also address the market monitoring and mitigation provisions applicable to the FCM in this process and the resulting filing.

Potomac Economics respectfully requests the Commission consider these comments in its decision making in this docket.

Respectfully submitted,

*/s/ David B. Patton*

David B. Patton, President  
Potomac Economics

Dated: March 15, 2010

## **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 15th day of March 2010 in Fairfax, VA