

**UNITED STATES OF AMERICA  
BEFORE THE  
FEDERAL ENERGY REGULATORY COMMISSION**

**New England Power Generators  
Association, Inc.**

v.

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**Docket Nos. EL14-7-002**

**ISO New England Inc.**

**Exelon Corporation and  
Calpine Corporation**

v.

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**EL15-23-002**

**ISO New England Inc.**

**ISO New England Inc.**

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**EL20-54-000**

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**INITIAL COMMENTS OF THE  
ISO-NEW ENGLAND EXTERNAL MARKET MONITOR**

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In accordance with ordering clause B of the Federal Energy Regulatory Commission’s (“Commission”) July 1, 2020 Order in the above-captioned docket, which instituted a Federal Power Act Section 206 proceeding and commenced a paper hearing, Potomac Economics submits these comments.<sup>1</sup> Potomac Economics is the External Market Monitor (“EMM”) for ISO New England (“ISO-NE”). In that capacity, we seek to ensure the efficiency and integrity of the ISO-NE markets. Potomac Economics also serves as the Independent Market Monitor for

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<sup>1</sup> *Order on Remand, Instituting Section 206 Proceeding, and Establishing Paper Hearing Procedures*, 172 FERC ¶ 61,005 (2020) (“Price Lock Order”).

the New York ISO, ERCOT, and the Midcontinent ISO. Our comments are informed by two decades of experience monitoring the performance of these markets and reviewing new investment in these regions.

In these comments, we address the questions posed by the Commission in its Price Lock Order. We explain that the current price lock in ISO-NE is not necessary to incent new investment, but rather represents an inefficient subsidy to new resources that ultimately and unnecessarily raises costs to the region's consumers.

## **I. COMMENTS ON THE PRICE LOCK PROVISIONS IN ISO NEW ENGLAND**

The Commission poses a number of questions in its Price Lock Order regarding the advisability of discontinuing the price lock and applying an offer price floor on new resources. We provide our answers and opinions on most of these questions in this section.

### **1. Is a price lock still needed to incent new entry in ISO-NE?**

No. A price lock has never been *needed* to incent new entry in ISO-NE. Like all other markets, investment is based on expectations of future prices and revenues. Such future prices and revenues need not be guaranteed by the RTO – future revenues can be locked-in or otherwise hedged via a variety of private contract arrangements. The use of these contracts has supported investments in other competitive electricity markets that have no RTO-sponsored lock-in provisions and just about every other non-regulated capital-intensive industry.

For example, the New York ISO has attracted 2.3 GW of merchant investment in new combined-cycle and peaking generation at the Cricket Valley, CPV Valley, and Bayonne plants over the last decade. ERCOT, which has experienced higher load growth than New York over the last decade, has attracted almost 9 GW of merchant investment in new gas-fired and coal-fired generation over the period.

The fact that investment has occurred in these and other markets that provide no guaranteed price-locks validates that RTO's need not guarantee future revenues for new entrants to incent efficient new investment. Additionally, despite frequent assertions to the contrary, it shows that an RTO-sponsored price-lock is not necessary for investors to secure financing for new resources. If investment has been financed in these other markets that do not provide any price or revenue guarantees, then it follows that the price-lock is not a necessary prerequisite for securing financing.

Additionally, sound economic theory provides no support for the need for price-lock provisions. Firms seeking to maximize their profits will invest when expected revenues exceed the costs of new entry unless such investors do not act in accordance with well-established economic and finance theory. This explains why new investment has occurred in other markets that do not guarantee future prices or revenues. Not only are the price-lock provisions unnecessary, the incentives provided by such price-lock provisions are inefficient, as we discuss below.

## **2. Does the price-lock lead to unreasonable price suppression in the entry year?**

The price-lock generally results in lower capacity auction clearing prices in the entry year. This can occur because total capacity procured in ISO-NE would be expected to fluctuate near the ISO's minimum capacity requirement in the long-run, which will cause capacity prices to fluctuate above and below net cost of new entry (net CONE).<sup>2</sup> Absent the price-lock provisions, a new entrant would normally expect to receive prices below net CONE in the initial years following its entry due to its own impact on the clearing price. This is particularly true if the new resource is large. Therefore, it would be efficient for the new entrant to enter only when the

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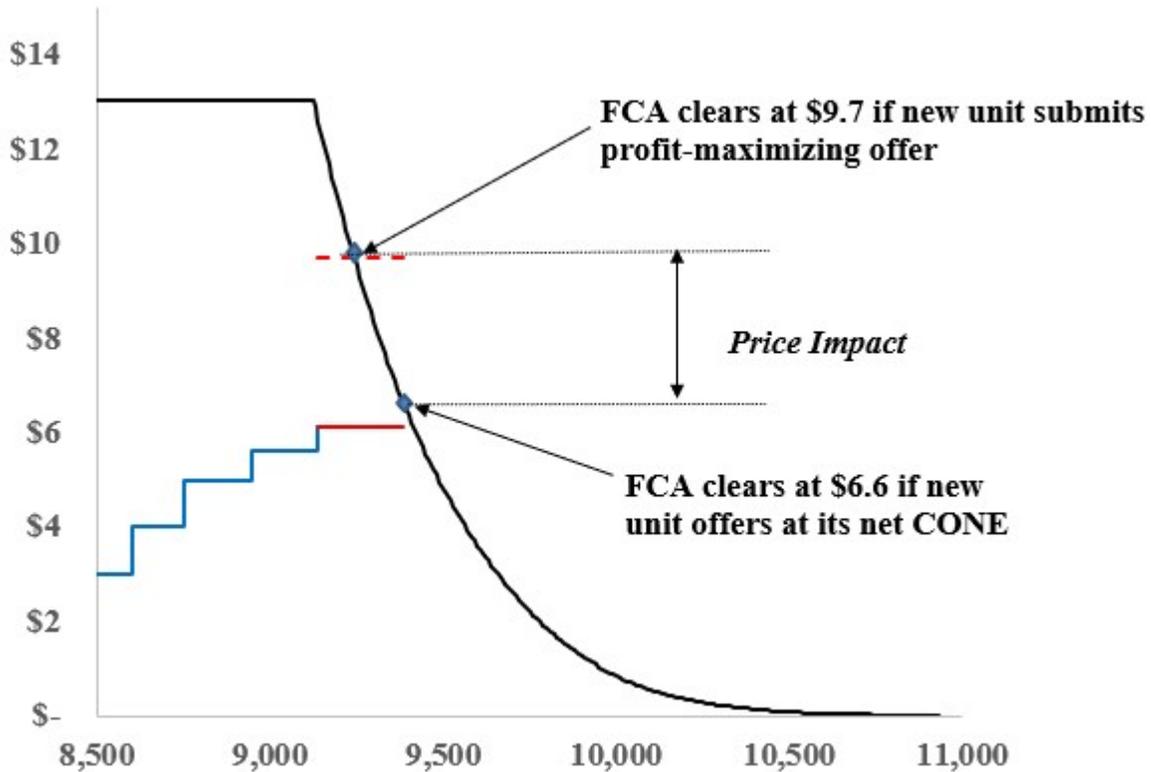
<sup>2</sup> The net cost of new entry is the FCA price necessary to cover a new resource's total investment cost, including capital costs, and net of energy and ancillary services market revenues. It is referred to as "net CONE".

price in the entry year is somewhat higher than net CONE. With the price-lock, the entrant may be willing to enter the market at a price in the entry year that is closer to net CONE because this price is guaranteed for seven years and the risk of lower post-entry prices is artificially eliminated.

However, the price-lock does not always lead to price suppression because the price-lock can increase the incentive to exercise market power among new entrants under certain conditions. The Forward Capacity Market (FCM) was designed to allow competition by potential new entrants before they move forward with construction. However, the cost of participation and the steps necessary to qualify for the auction limits participation by potential new resources, which can effectively create market power for those new suppliers under some circumstances. If a new resource faces little or no competition because competing resources were not qualified for a particular auction, the resource will have strong incentives to raise its offer price above its net CONE to increase its revenues. In such cases, the price-lock substantially amplifies these incentives.

For a new resource that is economic, the developer must develop an offer that balances: (a) the potential gain from setting a higher clearing price and (b) the potential loss from not being selected if its offer price is too high. Factors that increase the benefits a developer achieves from exercising market power and raising prices include the size of its existing portfolio (which increases its total capacity revenues) and the 7-year lock-in provision (which multiplies the gains of raising prices). The incentives of a 400 MW new generator with no other capacity resources are illustrated in the following figure for a capacity zone the size of Southeast New England . The figure assumes the new generator has a net CONE of \$6.60/kW-month.

### Illustration of New Generator Incentives to Raise Offer Price



This figure shows that if the generator offers at its net CONE (which is the competitive offer for a new supplier facing robust competition), the clearing price would be \$6.60/kW-month and the generator would earn \$17 million in excess of its net CONE over the 7-year lock-in period (\$0.50/month/kW for seven years). However, the generator would maximize its profits by offering at \$9.70/kW-month, which would result in a profit of \$121 million in excess its net CONE over the 7-year lock-in period.

The illustration above assumes the new supplier does not face competition from other new resources. The existence of other new suppliers in quantities sufficient to address the needs of the market will tend to eliminate the incentive for new suppliers to raise their offer prices. This example illustrates that while the price-lock suppresses capacity prices under most conditions, there are circumstances when the price-lock will increase the incentive to offer new resources at

higher prices. This occurs because the lock-in increases the benefits of exercising market power without decreasing the risk of the higher price being a losing offer.

**3. Does the price lock with the zero-price offer rule result in unreasonable price suppression in years 2-7?**

Yes. While price suppression in the entry year is uncertain, it is almost certainly the case that the price lock would suppress prices unreasonably in years 2-7. Under the price-lock, new entrants will have an incentive to enter at lower prices, even if post-entry prices are expected to fall well below net CONE since the new entrant would still receive the higher locked-in price in years 2-7. In other words, capacity prices are still expected to fluctuate as entry and exit occurs, but the seven-year price lock should shift the entire range of expected prices downward. This downward shift is a result of the subsidy implicit in the seven-year lock that shifts price risk from the developer to New England's customers.

**4. Is the price lock unduly discriminatory?**

Yes. The price lock discriminates in favor of investment in new resources and against existing resources. This is inefficient because it does not lead the market to satisfy the ISO's resource adequacy requirements at the lowest cost. The ISO's requirements are satisfied by a combination of new and existing resources – megawatts of unforced capacity from new and existing resources are completely fungible. Nonetheless, new resources can off-load the market risks associated with price fluctuations while existing resources cannot. Ultimately, this will lead to higher-cost new resources displacing lower-cost existing resources. To understand this, consider the following example. Assume:

- A new unit willing to enter at \$12 per kW-month.
- An existing unit with going-forward costs of \$10 per kW-month.
- Prices that are expected to fluctuate between \$9 and \$12 per kW-month in long-run equilibrium.

The price lock in this example produces the following results:

- When the market approaches \$12 per kW-month, the new resource will clear (along with the existing resource).
- The additional supply will cause the price to drop to \$9 per kW-month in the following auction, leading the existing unit to not clear and to retire.
- The new resource is unaffected by this fluctuation because it receives a \$3 subsidy in year 2.

This process causes a \$12 per kW-month new resource to displace a \$10 per kW-month existing resource simply because the settlement rules discriminate unduly in favor of the new resource. Because this is an inefficient displacement, this process is discriminatory and will result in higher costs for customers over time.

**5. If the price lock is retained, should the term be shortened and, if so, what would be a just and reasonable term?**

If our comments to the prior questions are correct, it follows that the only just and reasonable term for the price lock is one year since the capacity auction is conducted annually. We recommend the Commission not retain the price-lock.

**6. Comments regarding retaining the price-lock and adding an offer floor.**

Although we believe the price-lock is inefficient and should not be retained, we also find that adding an offer floor in combination with the price lock is more economically unsound and inefficient than the current offer floor. Having entered the market, a resource's costs are sunk and its going forward costs net of energy and ancillary services market revenues will be close to zero or negative. In other words, it will generally be profit-maximizing and economically rational for a recently-constructed unit to offer as a price-taker as long as it has no market power. Enforcing an offer floor on such a supplier would compel the supplier to offer in a manner that is not efficient or economic, leading to lower expected revenues for the investor and higher costs

for the ISO's customers. If the price-lock is an inefficient means to reduce the risk to the investor, adding an offer floor compounds the problem by adding a second inefficient rule that would tend to increase the risk to the investor. We respectfully recommend that the Commission reject such an approach.

#### **7. Comments regarding imposing an alternative replacement rate.**

Markets will facilitate the most efficient outcomes when all suppliers compete on an equal footing. Provisions that discriminate in favor of some participants over others distort the market outcomes and undermine its efficiency. Given that there is no clear evidence that the price-lock is not necessary to incent new investment, then it is reasonable to remove it without seeking to replace it with an "alternative replacement rate". To the extent that any such rate would seek to encourage or incent new investment over the maintenance of existing resources, it would produce the same inefficiencies and undue discrimination as the price-lock. In essence, it is a solution to a problem that does not exist. We recommend that the Commission not pursue an alternative replacement rate.

## **II. CONCLUSION**

We are encouraged that the Commission is re-considering the price lock rules in the forward capacity markets. As described in these comments, neither economic theory nor evidence from the wholesale electricity markets in the U.S. suggest that a price lock is necessary to incent investment in new resources. Further, the price locks are discriminatory and will lead to inefficient investment and retirement decisions over the long run that will raise prices to customers. Lastly, an offer price floor would lead to further inefficiencies by preventing the already-entered resource from offering the resource competitively.

Therefore, because these provisions are not necessary and are affirmatively harmful to the economic performance of the market, we respectfully recommend that the Commission eliminate

the price lock provisions in the New England FCM, and not replace them with an alternative rate or any form of offer price floor. These changes will improve price formation in the FCM, and allow the market to facilitate efficient retirements by existing suppliers and efficient investment decisions by new suppliers.

Respectfully submitted,

*/s/ David B. Patton*

David Patton  
President  
Potomac Economics, Ltd.

August 24, 2020

## 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 24th day of August, 2020 in Fairfax, VA.

*/s/ David B. Patton*

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