

ISO New England Inc. and  
New England Power Pool  
Participants Committee

Pursuant to Rules 211, 212 and 214 of the Rules of Practice and Procedure of the Federal Energy Regulatory Commission (“Commission”)<sup>1</sup>, the New England Power Generators Association, Inc. (“NEPGA”)<sup>2</sup> hereby files this Motion to Intervene and Protest of ISO New England Inc.’s (“ISO-NE”) and its Internal Market Monitor’s (“IMM”) proposed Dynamic De-List Bid Threshold for effect beginning in the thirteenth Forward Capacity Auction (“FCA 13”).<sup>3</sup> ISO-NE proposes to reduce the Dynamic De-List Bid Threshold (“DDBT”) from \$5.50/kW-month in FCA 12 to \$4.30/kW-month beginning in FCA 13, based on a new rationale and methodology not previously accepted by the Commission as just and reasonable.

<sup>3</sup> *ISO New England Inc. and New England Power Pool Filing Re: Update to Forward Capacity Market Dynamic De-List Bid Threshold*, Docket No. ER18-619-000 (filed January 8, 2018) (“DDBT Filing”). The New England Power Pool Participants Committee narrowly approved of the ISO-NE and IMM proposal by a vote of 60.63% in favor. *See* DDBT Filing, Transmittal Letter at 15.

Whereas the Commission twice accepted setting the DDBT by first identifying the most likely resource type to exit the Forward Capacity Auction, and then averaging the actual risk, opportunity, and going-forward costs from those resources (as reflected in their actual Static De-List Bids), ISO-NE now proposes to forecast the FCA 13-15 clearing prices and then set the DDBT at a price infra-marginal to those forecast clearing prices based on a subset of actual and “implied” DDBTs. In so doing, the IMM proposes to change the basis of the DDBT from a reasonable estimate of a cost-based offer for the most likely marginal resource type to a forecast of future auction clearing prices. Since the beginning of the two-settlement FCM design, the DDBT has been set according to the principle that any offer below the last offer to leave the market is considered competitive. The goal therefore has been to identify the most likely type of resource to exit and to estimate a competitive offer price for that resource type. The IMM proposes to instead estimate an infra-marginal offer price just below the auction clearing price, which inherently requires some measure of IMM prediction of future Forward Capacity Auction clearing prices. This is an unjust and unreasonable basis upon which to set the DDBT for the reasons discussed below.

The Commission-approved methodology since the beginning of the two-settlement Forward Capacity Market design, the average of actual cost-based offers from oil-fired Existing Capacity Resources reviewed by the IMM, remains a just and reasonable basis upon which to set the DDBT. The IMM has thousands of such MWs available to it upon which to set the DDBT, including the Static De-List Bids offered in FCAs 10-12 and the 5,100 MW of Static De-List Bids offered by oil-fired resources in FCA 9, which remain material to the DDBT beginning in FCA 13. NEPGA asks that the Commission deny the IMM’s proposal as unjust and unreasonable, thereby maintaining the existing DDBT methodology. NEPGA also respectfully requests that, should the Commission find that the Static De-List Bids offered by oil-fired steam resources in FCAs 10-12, like the FCA 9 Static De-List Bids, are

relevant, that it set this proceeding for hearing and settlement judge procedures with a direction that the IMM and ISO-NE set the DDBT at a price based on Static De-List Bids submitted by oil-fired steam resources and reviewed by the IMM in FCAs 9 through 12.

In support of this Protest, NEPGA submits as Attachment A the Affidavit of Paul M Sotkiewicz, Ph.D., President and Founder of E-Cubed, LLC.<sup>4</sup> Among other qualifications, Dr. Sotkiewicz served as a Senior Economic Policy Advisor and as the Chief Economist in the Market Service Division of PJM Interconnection, LLC. Dr. Sotkiewicz explains that the IMM's proposed DDBT methodology: (1) relies on a flawed and logically inconsistent methodology that differs from the DDBT methodology approved twice by the Commission;<sup>5</sup> and (2) sets a dangerous precedent, in that ISO-NE and the IMM taking a position on Forward Capacity Market outcomes ("FCM") creates incentives that could harm reliability.<sup>6</sup> Dr. Sotkiewicz further explains that the existing DDBT methodology remains the appropriate methodology for determining the DDBT, and that based on that methodology an appropriate estimate for a cost-based offer from the likely marginal resource may be higher than \$5.50/kW-month.<sup>7</sup>

## **I. MOTION TO INTERVENE AND COMMUNICATIONS**

NEPGA is the trade association representing competitive power generators in New England. NEPGA's member companies represent approximately 26,000 megawatts, or roughly 80% of the installed capacity in New England. NEPGA's mission is to support competitive wholesale electricity markets in New England. NEPGA believes that open markets guided by stable public policies are the best means to provide reliable and competitively-priced electricity for consumers. A sensible, market-based approach furthers economic development, jobs and balanced environmental policy for the region.

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<sup>4</sup> *Motion to Intervene and Protest of the New England Power Generators Association, Inc., Affidavit of Paul M. Sotkiewicz, Ph.D.*, Docket No. ER18-620-000 (filed Jan. 29, 2018) ("Sotkiewicz Testimony").

<sup>5</sup> *Id.* at PP 6-23.

<sup>6</sup> *Id.* at PP 24-31.

<sup>7</sup> *Id.* at PP 32-39.

NEPGA's member companies are responsible for generating and supplying electric power for sale within the New England bulk power system. As active participants in the ISO-NE wholesale electricity markets, NEPGA's member companies have substantial and direct interests in the outcome of these proceedings, and those interests cannot be adequately represented by any other party in the proceeding.

All correspondence and communications related to this proceeding should be addressed to the following individual:

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## II. HISTORY/BACKGROUND

In the first Forward Capacity Auction, the DDBT was indexed to a multiple of the cost of new entry ("CONE") equal to  $0.8 \times \text{CONE}$ .<sup>8</sup> This remained the case through FCA 7.<sup>9</sup> In FCA 8, the IMM reduced the DDBT to \$1/kW-month, roughly equal to the lowest of the then-recent Annual Reconfiguration Auction clearing prices.<sup>10</sup> With the adoption of the Pay for Performance Forward Capacity Market design in FCA 9 came a fundamental change in the IMM's measure of a competitive offer and the methodology for setting the DDBT. According to the IMM, the Pay for Performance

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<sup>8</sup> See *Devon Power LLC*, 115 FERC ¶ 61,340, at P 28 (accepting terms agreed to by settlement for the first Forward Capacity Auction, including a  $0.8 \times \text{CONE}$  Dynamic De-List Bid Threshold).

<sup>9</sup> *ISO New England Inc. Filing Re: Informational Filing for Qualification in the Forward Capacity Market*, Transmittal Letter at 3 Docket No. ER13-335-000 (filed Nov. 6, 2012) (explaining that for FCA 7, Static De-List Bids above  $0.8 \times \text{CONE}$  must reviewed by the Internal Market Monitor).

<sup>10</sup> *ISO New England Inc., et al.*, 135 FERC ¶ 61,029 at P 315 (2011).

design changed “the definition of the capacity product and therefore change[d] the level of a competitive offer in the capacity market for all resources.”<sup>11</sup> The IMM newly defined the DDBT to equal:

$$\text{(Performance Payment Rate (PPR) x Balancing Ratio}^{12} \text{ x H) + (Net Going Forward Costs) - (PPR x Expected Performance During Capacity Scarcity Conditions x H)}$$

Where H = number of hours of Capacity Scarcity Conditions the IMM expects during the Capacity Commitment Period.<sup>13</sup>

The first part of the formula represents the opportunity cost of assuming a Capacity Supply Obligation and is not resource specific.<sup>14</sup> The third part represents expected capacity performance payments under the Pay for Performance design.<sup>15</sup> For FCA 9, the IMM based the opportunity costs on historical averages and its consultant’s estimate of system load and supply balances.<sup>16</sup> The IMM based the net going-forward costs on a specific resource type, “existing fossil steam resources,” explaining that the values underlying net going-forward costs “clearly depend on the characteristics of the resource.”<sup>17</sup> The IMM further reasoned that:

[S]ince it is obviously not possible to know the marginal unit prior to the auction, the IMM used values representative of fossil steam units to set the Dynamic De-List Bid Threshold because these are the type of existing resources most likely to seek to leave the auction and therefore could be the marginal unit if there is more existing capacity than needed to meet the Installed Capacity Requirement.<sup>18</sup>

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<sup>11</sup> *ISO New England Inc., and New England Power Pool, Filings of Market Rule Change to Implement Pay for Performance in the Forward Capacity Market*, Attachment I-1e, *Joint Testimony of David LaPlante and Seyed Parviz Gheblealivand on behalf of the ISO*, at 55, Docket No. ER14-1050-000 (filed January 17, 2014) (“LaPlante/Gheblealivand Testimony”).

<sup>12</sup> Under the Pay for Performance Design, a capacity resource’s performance is measured against its share of system or zonal load, equal to the resource’s Capacity Supply Obligation multiplied by the Balancing Ratio. The Balancing Ratio is equal to Load + Reserve Requirements / Total Capacity Supply Obligations. *See* Note 7, Attachment I-1a, *Transmittal Letter on behalf of the ISO* at 37.

<sup>13</sup> LaPlante/Gheblealivand Testimony at 55-56.

<sup>14</sup> *Id.* at 56.

<sup>15</sup> *Id.* at 56.

<sup>16</sup> *Id.* at 59-60, *citing* to Analysis Group Inc. report “Assessment of the Impact of ISO-NE’s Proposed Forward Capacity Market Performance Incentives,” Pay for Performance Filing, Attachment I-1g.

<sup>17</sup> LaPlante/Gheblealivand Testimony at 56.

<sup>18</sup> *Id.* at 55.

As its measure of net going-forward costs, the IMM used Static De-List Bids from “fossil steam resources” as reviewed by the IMM in FCA 8, and disaggregated the bids into the three formula components: opportunity costs, net going forward costs, and expected performance payments.<sup>19</sup> Disaggregation made sense because of the change to the Pay for Performance construct in FCA 9. With it came more risk, and new offer variables, including a new measure of opportunity cost and of performance payments. The FCA 8 Static De-List Bids did not include these measures, so separating out going-forward costs from actual Static De-List Bids that could be used to estimate going-forward costs under the Pay for Performance construct made sense.

The IMM continued to base the DDBT for FCAs 10-12 on IMM-reviewed Static De-List Bids, explaining that an existing fossil steam unit is “representative of the type of resource that will likely be marginal in the FCA given the resource mix in New England. Thus, it is appropriate for the Dynamic De-List Bid Threshold to be based on a representative competitive price for an oil-fired steam unit.”<sup>20</sup> The IMM reasoned that “[s]uppliers with other existing resources that submit bids below the price of a characteristic older oil-fired steam unit are not likely to have an impact on the auction clearing price, and therefore applying mitigation to these lower-priced bids from existing resources would be redundant.”<sup>21</sup>

As it did for the DDBT in effect for FCA 9, the IMM used actual Static De-List Bids from oil-fired steam resources to set the FCA 10-12 DDBT, in this case those de-list bids submitted and IMM-reviewed in FCA 9.<sup>22</sup> Unlike for FCA 9, however, the IMM did not separate out a going-forward costs component from the Static De-List Bids. Because the FCA 9 Static De-List Bids were made under the

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<sup>19</sup> *Id.* at 60. The IMM arrived at a net-going forward cost value of \$2.75/kW-month. The IMM likewise based the Availability Factor on an estimate of average performance for an existing fossil steam resource under a \$2,000/MWh Performance Payment Rate, estimating availability at 40%.

<sup>20</sup> *ISO New England Inc. and New England Power Pool Filing Re: Market Monitoring-Related Capacity Market Changes, Joint Testimony of Jeffery D. McDonald and Robert V. Laurita on Behalf of ISO New England Inc.* at 9, Docket No. ER15-1650-000 (filed May 1, 2015) (“McDonald/Laurita Testimony”).

<sup>21</sup> *Id.*

<sup>22</sup> *Id.* at 6.

Pay for Performance design, the IMM could use actual market exposure and revenue expectations to establish an estimated competitive offer from the most likely resource type to de-list in the auction. The IMM itself explained that it no longer had to rely on estimates of future resource performance and market conditions because it had available actual supply offers reflecting the way in which suppliers priced their resources under the Pay for Performance design.<sup>23</sup> The IMM disaggregated the FCA 9 Static De-List Bids only to update them based on the IMM's estimate of non-resource specific values, such as expected Capacity Scarcity Condition hours, in setting the DDBT at \$5.50/kW-month beginning in FCA 10.<sup>24</sup>

The Commission accepted the DDBT proposed by the IMM, finding the updated methodology an "improvement" to the methodology employed for FCA 9 because rather than relying in part on historical data to estimate resource-specific costs it based the DDBT on resource-specific costs as reflected in actual Static De-List Bids.<sup>25</sup> The Commission found this just and reasonable "because the capacity suppliers themselves are in the best position to calculate their own going-forward costs and the perceived risks and benefits associated with participating in the FCA."<sup>26</sup> That the IMM had reviewed the Static De-List Bids and found them to be reasonable reflections of resource costs made them an "acceptable dataset" for determining the DDBT.<sup>27</sup> The Commission also found the methodology consistent with that which it accepted for FCA 9, in that it likewise set the DDBT "at the competitive bid of the likely marginal unit," modified to "take advantage of the bid data received from existing generators in the FCA 9 qualification process."<sup>28</sup>

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<sup>23</sup> *Id.* at 13.

<sup>24</sup> *Id.* at 11. The IMM reported that it did not add an opportunity cost component because none of the fossil steam units submitted an opportunity cost component in a Static De-List Bid.

<sup>25</sup> *ISO New England Inc. and New England Power Pool Participants Committee*, 151 FERC ¶ 61,270, at P 40 (2015).

<sup>26</sup> *Id.*

<sup>27</sup> *Id.*

<sup>28</sup> *Id.*, note 63 (citing to McDonald/Laurita Testimony at 8).

### III. PROTEST

Since the beginning of the Pay for Performance design in FCA 9, the ISO-NE has calculated the DDBT by first identifying the likely marginal resource type, and then developing a reasonable estimate of a profit-maximizing offer from that resource type based on actual Static De-List Bids reviewed by the IMM. The IMM now looks to abandon that approach to instead forecast the price at which the Forward Capacity Auction will clear as far out as FCA 15, and then attempt to identify an offer price that will be infra-marginal. At a macro level, the IMM “expects that there is a reasonable chance clearing prices will continue to decrease, thereby warranting a reduction to the DDBT.”<sup>29</sup> In so doing, the IMM puts itself in the role of predicting market outcomes, rather than using actual cost and risk-based offers reviewed by the IMM from a specific resource type as the basis for the DDBT. Worse yet, the IMM seeks to reverse the principle that the DDBT should be set at a level at which the likely marginal resource type will price an offer, and instead set the DDBT at an offer price *inframarginal* to its clearing price forecast. The IMM’s new rationale for its DDBT methodology is unjust and unreasonable and should be rejected by the Commission.

#### **A. ISO-NE IS PROPOSING A FUNDAMENTAL CHANGE TO THE DYNAMIC DE-LIST BID THRESHOLD METHODOLOGY APPROVED BY THE COMMISSION FOR FCAS 13-15**

The IMM seeks to forecast the Forward Capacity Auction clearing price out to FCA 15, and then set the DDBT “slightly below the expected competitive de-list bid that is likely to be marginal in the FCA.”<sup>30</sup> The IMM does so by first developing a MW-weighted average of actual infra-marginal Dynamic De-List Bids and some unidentified number of “implied” Dynamic De-List Bids in FCA 11,

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<sup>29</sup> *ISO New England Inc. and New England Power Pool Filing Re: Update to the Forward Capacity Market Dynamic De-List Bid Threshold, Joint Testimony of Hemant Patil and Gregg Bradley on Behalf of ISO New England Inc.*, Docket No. ER18-620-000 (filed Jan. 8, 2018) (“Patil/Bradley Testimony”).

<sup>30</sup> Patil/Bradley Testimony at 8.



equal to \$4.15/kW-month.<sup>31</sup> The IMM derived “implied” de-list bids from “infra-marginal resources that did not submit de-list bids in the last round of [FCA 11].”<sup>32</sup> The IMM assigns these resources a \$3.99/kW-month “implied” de-list bid price (just below the \$4.00/kW-month end of round price) because “it is reasonable to conclude that these resources have capacity costs that are no greater than the end-of-round price in the auction.”<sup>33</sup>

The IMM then reverts back to the cost formula it used to set the DDBT for FCA 9 (as described above), what it now terms the “optimal bid formula.”<sup>34</sup> As it did for FCA 9, the IMM calculates both a common value component - using the Performance Payment Rate and its estimates of the Capacity Balancing Ratio and the number of Capacity Scarcity Condition hours in the 2022-2023 Capacity Commitment Period – and a resource-specific component.<sup>35</sup> For the resource-specific component, the IMM uses its MW-weighted average of Dynamic De-List Bids “as a proxy to back into the resource-specific component of the bid from the likely marginal resource.”<sup>36</sup> The IMM backs into that value in several steps. First, the IMM separates out from the \$4.15/kW-month average an amount intended to reflect values embedded in the resource-specific portion of the de-list bid offer that change from auction to auction, namely the Performance Payment Rate, Balancing Ratio, assumed Capacity Scarcity Condition Hours, and the average performance during Capacity Scarcity Conditions.<sup>37</sup> After backing out these variables, the IMM is left with a going-forward cost value of \$3.95/kW-month.<sup>38</sup> The IMM then creates a value equal to expected capacity performance payments, using the FCA 13 Performance Payment Rate of \$3,500/MWh multiplied by the IMM’s predictions of the number of Capacity Scarcity

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<sup>31</sup> *Id.* at 10.

<sup>32</sup> *Id.*

<sup>33</sup> *Id.*

<sup>34</sup> *Id.* at 11.

<sup>35</sup> *Id.* at 13.

<sup>36</sup> *Id.*

<sup>37</sup> *Id.* at 33.

<sup>38</sup> *Id.* at 33-34.

Condition hours (4.15 hours) and an average performance value (0.56) to arrive at a value of \$0.68/kW-month.<sup>39</sup> The IMM subtracts this value from the \$3.95/kW-month going-forward cost to arrive at a resource-specific value of \$3.27/kW-month. Finally, the IMM adds to that derived value its estimated common-cost component, \$1.03/kW-month, to arrive at a DDBT of \$4.30/kW-month.<sup>40</sup>

This newly-proposed methodology obviously differs significantly from that used in each auction to date under Pay for Performance, in that it relies heavily on the IMM's forecast of future market conditions rather than Market Participant expectations, and does not seek to estimate the competitive offer for the most likely resource to exit the auction. This is an unjust and unreasonable departure from what is a sound and principled approach found just and reasonable by the Commission twice in the past four years.

**B. THE IMM PROPOSES AN UNJUST AND UNREASONABLE METHODOLOGY PREMISED ON ITS FORECAST OF FUTURE CLEARING PRICES**

The IMM's newly proposed methodology completely abandons the reasonable, cost-based methodology the Commission accepted for the DDBT for each FCA since the beginning of the Pay for Performance design. Over 10,300 MW of Static De-List Bids have been submitted since the beginning of the Pay for Performance design in FCA 9, but the IMM chooses not to consider those in its proposed DDBT. Instead, the IMM speculates as far out as FCA 15 that the Forward Capacity Auction will clear lower in each auction and then estimates an infra-marginal offer price based on non-cost based offers. This methodology is speculative, far more so than the methodology the IMM employed and the Commission accepted for FCAs 10-12, and requires a tortured methodology to "back out" a value from Dynamic De-List Bids that do not reflect cost-based offers from the resource that is likely to set the

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<sup>39</sup> *Id.* at 34.

<sup>40</sup> *Id.* at 35.

clearing price. Just as no one can predict with certainty the marginal offer price, no one predict future supply and demand conditions. The IMM puts itself in the position of predicting both.

**1. THE IMM IGNORES THE OVER 10,000 MWS OF STATIC DE-LIST BIDS  
SUBMITTED BY MARKET PARTICIPANTS AND REVIEWED BY THE IMM UNDER  
THE PAY FOR PERFORMANCE DESIGN**

Since the Pay for Performance design took effect in FCA 9, the DDBT has been based on actual Static De-List Bids reviewed and mitigated by the IMM. The Commission has found this just and reasonable “because the capacity suppliers themselves are in the best position to calculate their own going-forward costs and the perceived risks and benefits associated with participating in the FCA.”<sup>41</sup> That the IMM had reviewed the Static De-List Bids and found them to reasonably reflect cost-based offers made them an “acceptable dataset” for determining the DDBT.<sup>42</sup>

The IMM used Static De-List Bids offered in FCA 8 as the basis for the FCA 9 DDBT. For the DDBT in effect for FCA 10-12, the IMM used the 5,100 MW of Static De-List bids offered by oil-fired units in FCA 9, “the type of existing resources most likely to seek to leave the auction.”<sup>43</sup> Over 5,300 more Static De-List Bids have been submitted since FCA 9, with 1,382 MW submitted in FCA 10,<sup>44</sup> 1,622 MW in FCA 11,<sup>45</sup> and 2,309 MW more in FCA 12,<sup>46</sup> many of which if not most likely came from older fossil-fired units.<sup>47</sup> The IMM has given no reason why the FCA 10-12 Static De-List Bids are any less material than the FCA 9 Static De-List Bids, other than to unconvincingly assert that the methodology approved by the Commission “relies on the availability of Static De-List Bids from recent

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<sup>41</sup> *Id.*

<sup>42</sup> *Id.*

<sup>43</sup> LaPlante/ Gheblealivand Testimony at 55.

<sup>44</sup> *ISO New England Inc. Informational Filing for Qualification in the Forward Capacity Market* at 4-5, Docket No. ER16-308-000 (filed Nov. 10, 2015)

<sup>45</sup> *ISO New England Inc. Informational Filing for Qualification in the Forward Capacity Market* at 5, Docket No. ER17-321-000 (filed November 8, 2016).

<sup>46</sup> *ISO New England Inc.*, 162 FERC ¶ 61,052, at P 8 (2018).

<sup>47</sup> Because the IMM does not consider these in its DDBT calculation, there is no information in the record to determine what types of resources submitted the 5,300 MW of Static De-List Bids. This information could be discovered in an evidentiary hearing, as requested in the alternative and discussed by NEPGA below.

auctions.”<sup>48</sup> The FCA 9 oil-fired generation resource Static De-List Bids, as well, remain entirely material to the DDBT. As noted by ISO-NE in its recent fuel security study, approximately 5,400 MW of coal and oil-fired generation remain operational “but at risk of retirement,”<sup>49</sup> making them among the more likely resource types to submit Static De-List Bids in the Forward Capacity Auction. Just like in FCA 9, therefore, older fossil fuel generating units are likely to be the marginal unit.<sup>50</sup> If anything those resources are *more* likely to be the marginal resources, as they will be four years older by FCA 13 and, for some, in more need of capital improvements to meet a Capacity Supply Obligation.<sup>51</sup> Likewise, extreme weather events (such as the recent cold snap in New England) and air-emissions caps, including the recently effective Massachusetts generating resource-specific cap on greenhouse gas emissions,<sup>52</sup> create additional opportunity costs, in that a generating resource may be faced with the Hobson’s choice of incurring Pay for Performance penalties or incurring penalties and other sanctions associated with exceeding an emissions cap.<sup>53</sup> Each of these factors contribute to the conclusion that a cost-based offer for an oil-fired or other fossil fuel unit is the most likely to exit the auction, just as was the case in FCA 9.<sup>54</sup>

The Pay for Performance design gives Existing Capacity Resources a significant incentive to price capital improvements and fuel arrangements that maintain or improve performance – in FCA 13 at a rate of \$,3500/MWh and in FCA 15 \$5,455/MWh – to see if the market will price the investment. Indeed, that is the intent of the design itself – to increase incentives to be available to perform during

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<sup>48</sup> Patil/Bradley Testimony at 24. The Commission did not consider whether prior auction Static De-List Bids should no longer be considered as relevant in finding the DDBT methodology just and reasonable. See 151 FERC ¶ 61,270 at PP 40-41 (2015).

<sup>49</sup> *Operational Fuel-Security Analysis For Discussion* at 12, January 17, 2018, available at: [https://www.iso-ne.com/static-assets/documents/2018/01/20180117\\_operational\\_fuel-security\\_analysis.pdf](https://www.iso-ne.com/static-assets/documents/2018/01/20180117_operational_fuel-security_analysis.pdf).

<sup>50</sup> 151 FERC ¶ 61,270 at P 40 (2015).

<sup>51</sup> Sotkiewicz Testimony at PP 35-39.

<sup>52</sup> See Code of Massachusetts Regulations 340 C.M.R. 7.74, Reducing CO2 Emissions From Electricity Generating Facilities (2018).

<sup>53</sup> Sotkiewicz Testimony at PP 35-39.

<sup>54</sup> *Id.*

Capacity Scarcity Conditions. ISO-NE relied heavily on oil-fired generating resources just weeks ago during the historic New England cold snap. This winter, the oil program provided incentives for large on-site oil-reserves. Going forward, Pay for Performance is intended to provide those same incentives. If nothing else, there is certainly nothing to suggest that the 5,400 MW of coal and oil-fired Existing Capacity Resources would offer lower four years later, or that their costs or likelihood of pricing capital improvements would have decreased.<sup>55</sup> The IMM therefore may have up to 10,300 MW of IMM-reviewed Static De-List Bids from oil-fired steam units from FCA 9 through FCA 12 but has chosen to ignore them in setting the DDBT.

The IMM explains that it did not consider FCA 10 or FCA 11 Static De-List Bids because 10 oil-fired resources filed Static De-List Bids in FCAs 10-11, compared to 31 in FCA 9, and that each of the Static De-List Bids were withdrawn before the auctions.<sup>56</sup> The IMM did not consider the FCA 12 Static De-List Bids because they “were submitted too late for use in the DDBT calculation and also may have been withdrawn during the finalization period prior to the auction.”<sup>57</sup> The IMM reasons that a withdrawn Static De-List Bid “signals that the bid price likely was not (or is no longer) an accurate representation of the participant’s cost of providing capacity from that resource” and concludes that they are “not a reliable reflection of a competitive bid and cannot be used in calculating the DDBT.”<sup>58</sup> The IMM’s explanation misses the mark in two respects. First, Static De-List Bids may be withdrawn before or *after* the IMM has reviewed them. For each Static De-List Bid withdrawn after the IMM reviewed it, the IMM and ISO-NE have an actual cost-based offer that has satisfied the Commission’s condition that the IMM had reviewed it, thus making it eligible to be included in an “acceptable dataset” of cost-based

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<sup>55</sup> *Id.* at PP 35-39.

<sup>56</sup> Patil/Bradley Testimony at 24.

<sup>57</sup> *Id.* If the Commission orders an evidentiary hearing, as requested by NEPGA in the alternative below, NEPGA submits that the FCA 12 Static De-List Bids reviewed by the IMM may be used to estimate a cost-based offer from the most likely resource type to exit the auction.

<sup>58</sup> *Id.* at 25.

offers from the likely marginal resource type.<sup>59</sup> The IMM and ISO-NE fail to report on when each Static De-List Bid was withdrawn, but each de-list bid withdrawn following IMM review provides the IMM with actual, cost-based competitive offers from existing generating resources in FCAs 10-12. The Commission emphasized that the IMM's review of the Static De-List Bids in FCA 9 that formed the basis of the DDBT in FCAs 10-12 was critical because it confirmed for the Commission that they were "reasonable reflections of resource costs."<sup>60</sup> Whether an IMM-reviewed Static De-List Bid was entered into the auction or withdrawn prior to then, it is appropriately considered a cost-based offer price under the Commission's criteria and an appropriate basis upon which to base the DDBT.

Second, the withdrawal does not necessarily signal that a resource's costs have changed or that its Static De-List Bid is otherwise not an accurate representation of cost. A resource may withdraw its offer prior to the auction to put off what is in effect an irreversible retirement decision, until more complete information is provided regarding future market conditions. Generation assets are long-lived assets and a decision to de-list from the Forward Capacity Auction is largely viewed as a decision to permanently exit the market through a retirement.<sup>61</sup> There is value to the "real option" to hold off on the retirement decision until there is better or more definitive information available from future auctions to inform the retirement decision.<sup>62</sup> Though the consequence of a cleared Static or Dynamic De-List Bid is a one-year exit from the market, it most likely signals that a resource must recover certain costs on average and over time to remain operational.<sup>63</sup> Like a poker player offering into the pot in order to see the next card, a generating capacity resource may be willing to "pay" by risking an auction clearing price below that resource's costs for that year, in exchange for the potential afforded by remaining in the

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<sup>59</sup> 151 FERC ¶ 61,270 at P 40 (2015) (finding that "reasonable reflections of resource costs" constitute an "acceptable dataset").

<sup>60</sup> *Id.*

<sup>61</sup> Sotkiewicz Testimony at PP 27-29.

<sup>62</sup> *Id.*

<sup>63</sup> *Id.*

market for one more year.<sup>64</sup> While a generating capacity resource contemplates retirement, it will want to remain in commercial operation and recover all possible revenues, including capacity revenues, giving further value to withdrawing its offer.<sup>65</sup>

The IMM and ISO-NE have available to them some number of Static De-List Bids from FCAs 10-12, and 5,100 MW of Static De-List Bids from oil-fired generating resources in FCA 9. Together these values make a just and reasonable dataset upon which to base the DDBT. The IMM's and ISO-NE's failure to base the DDBT on these cost-based values is arbitrary and capricious.

## **2. DYNAMIC DE-LIST BIDS ARE NOT A REASONABLE MEASURE OF A COST-BASED OFFER FROM THE LIKELY MARGINAL RESOURCE**

The IMM's proposed methodology does not seek to estimate a cost-based offer from the likely marginal resource type. The IMM itself would admit that it is not attempting to satisfy the latter, in that it is seeking to find a price "slightly below the expected competitive de-list bid that is likely to be marginal in the FCA."<sup>66</sup> With respect to whether it is proposing to develop the DDBT based on likely resource going-forward costs, risks, and opportunity costs, the IMM asserts that its proposed methodology achieves that when it in fact does not. The IMM bases the DDBT on a rather tortured methodology, described above, beginning with the IMM's self-selection of 2,968 MW of actual and "implied" Dynamic De-List Bids from FCA 11. The IMM's use of Dynamic De-List Bids, real and implied, violates the just and reasonable basis for setting the DDBT established in the prior four Forward Capacity Auctions.

A Dynamic De-List Bid does not in all cases, or perhaps even in the majority of cases, represent a cost-based offer into the Forward Capacity Auction. Static De-List Bids are the only type that

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<sup>64</sup> *Id.* at P 27.

<sup>65</sup> *Id.* at P 29.

<sup>66</sup> Patil/Bradley Testimony at 8.

necessarily represent a cost-based offer, in that the IMM requires a Market Participant to structure its Static De-List Bid according to a formula that includes resource-specific going-forward costs, risks, and opportunity costs, and the IMM reviews Static De-List Bids on that basis. A Dynamic De-List Bid is not reviewed by the IMM, and may not reflect a resource's profit-maximizing offer price. A Market Participant may be willing to assume a Capacity Supply Obligation below its profit-maximizing offer price for reasons unrelated to its costs, including the value of realizing some amount of capacity revenues in the existing auction while continuing to participate in the market for the potential of capacity revenues in future auctions.<sup>67</sup> In addition, Dynamic De-List Bid prices, unlike Static De-List Bid prices, are shaped by competitive discipline and auction behavior once the auction price drops below the Dynamic De-List Bid Threshold. Indeed, the IMM relies on this "information from Market Participant bidding behavior during the auction" in its targeting of an infra-marginal offer price.<sup>68</sup> The IMM makes no mention of these other factors that may be reflected in a Dynamic De-List Bid price, conceding only that a Dynamic De-List Bid is a "reasonably accurate" reflection of a cost-based offer.<sup>69</sup>

The leap from Dynamic De-List Bid to cost-based offer is even greater for the "implied" de-list bids created by the IMM. The IMM takes a Market Participant not submitting a Static or Dynamic De-List Bid as that Market Participant making a cost-based offer into the Forward Capacity Auction of \$3.99/kW-month. A \$0/kW-month offer into the Forward Capacity Auction can and often is an economically rational offer price for an existing resource regardless of its going-forward costs.<sup>70</sup> The IMM is creating "implied" cost-based offers from non-offers, assuming that a resource that did not price its offer during the last round of the auction (in the case of FCA 11, ending at \$4.00/kW-month) would have made a cost-based offer in the following round (had there been one) beginning at \$3.99/kW-month.

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<sup>67</sup> Sotkiewicz Testimony at PP 27-29.

<sup>68</sup> Patil/Bradley Testimony at 26.

<sup>69</sup> *Id.*

<sup>70</sup> Sotkiewicz Testimony at PP 27-29.



But as discussed, it is inappropriate to impute a cost-based offer price on a resource that remains in the auction through the Dynamic De-List Bid rounds, particularly so for resources that did not submit an offer price at all.

### **3. THE IMM'S USE OF DYNAMIC DE-LIST BIDS AND ITS FUTURE MARKET ASSUMPTIONS IS ARBITRARY AND CAPRICIOUS**

The way in which the IMM uses Dynamic De-List Bids and its expectations of future market conditions in setting a DDBT price is arbitrary and capricious and further illustrates that its proposed methodology is unjust and unreasonable. The IMM chooses a subset of Dynamic De-List Bids well below the margin when any reasonable measure of a marginal offer price would be based on offers close to the margin. The IMM justifies its choice almost entirely on its expectation that the Forward Capacity Market will be long on capacity for several Forward Capacity Auctions, when Forward Capacity Market conditions can and have changed significantly from one auction to the next.

For an estimate of the DDBT to be consistent with the marginal resource offers setting or just under the market clearing price<sup>71</sup> it should only include those resources that are truly marginal or just inframarginal.<sup>72</sup> As explained, *supra*, the IMM instead, took all observed Dynamic Delist Bids down to the final round price of \$4/kW-month in FCA 11<sup>73</sup> and some undefined number of MWs that did not submit a Dynamic Delist Bid at \$4/kW-month or above, imputing a \$3.99/kW-month offer price to these “implied” de-list bids. The IMM arrived at a MW-weighted average of the “implied” de-list bids and actual Dynamic De-list Bids of \$4.15/kW-month,<sup>74</sup> which it then used as an input to derive its proposed DDBT.<sup>75</sup> With a \$5.30/kW-month clearing price in FCA 11, it is obvious that the Dynamic De-List Bids, especially the “implied” bids, are well below the observed marginal offer price and therefore bias

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<sup>71</sup> Patil/Bradley Testimony at 4.

<sup>72</sup> Sotkiewicz Testimony at PP 9-15.

<sup>73</sup> DDBT Filing, Transmittal Letter at 11-12; *see also* Patil-Bradley Testimony at 28-31.

<sup>74</sup> Patil/Bradley Testimony at 28-31.

<sup>75</sup> Patil/Bradley Testimony at 28-31.

the forecast clearing price downward.<sup>76</sup> In addition, the IMM, without explanation, uses a total of 2,698 MW of offers (actual and implied) such that the total MW used to estimate the weighted average Dynamic Delist Bid is equal to the largest single supplier portfolio of capacity resources that cleared FCA 11.<sup>77</sup> With the IMM failing to explain its decision to use 2,968 MWs of offers (and only a subset of those being actual Dynamic De-List Bids), the choice of the MW value of offers is arbitrary and capricious.

To illustrate the arbitrariness of “implied” de-list bids and a 2,968 MW cutoff, suppose the value of all the actual submitted Dynamic De-list Bids in FCA 11 were just under the clearing price and were \$5.29/kW-month. This implies that the IMM would have used only 365 MW of actual Dynamic De-List Bids, or 12.3 percent of all the MW bids considered, and created 2,303 MWs of implied de-list bids at \$3.99/kW-month.<sup>78</sup> Assume again that the actual Dynamic De-List Bids were just below the FCA 11 clearing price, but that the IMM based the DDBT solely on these actual Dynamic De-List Bids (and not a subset of “implied” bids). This would imply a net going forward cost value of \$5.09/kW-month using all the other IMM results and assumptions about performance hours, which in turn would equate to a \$5.44/kW-month DDBT.<sup>79</sup> If instead the IMM had only used Dynamic De-Lists between the \$5.30/kW-month clearing price and \$4.50/kW-month, and used \$4.49/kW-month as the “implied” de-list bid value, then the DDBT, using a 2,968 MW pool of de-list bids, would have been \$4.59/kW-month.<sup>80</sup> Suppose instead that the IMM chose to use a smaller number of MW, say 1,500 MW instead of 2,968 MW, while retaining the \$3.99/kW-month implied de-list bid value, and only 365 MW of

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<sup>76</sup> Sotkiewicz Testimony at PP 9.

<sup>77</sup> Patil/Bradley Testimony at 29.

<sup>78</sup> Sotkiewicz Testimony at P 12. This can be calculated in the following manner.  $\$4.15/\text{kW-month} = \$3.99/\text{kW-month} * (2968 - x)/2968 + \$5.29/\text{kW-month} * x/2968$ . This would be the smallest MW value of actual de-list bids submitted, but this example shows that depending on the value of the delist bids and MW, this calculation could turn out very differently.

<sup>79</sup> Sotkiewicz Testimony at PP 22-23.

<sup>80</sup> *Id.* at P 13.

actual Dynamic De-list Bids. Then the value derived would have been \$4.30/kW-month.<sup>81</sup> What is obvious from these examples is that the value of the \$4.15/kW-month MW-weighted average is driven by two assumptions with little if any support, the choice of a 2,968 MW cutoff and the use of “implied” de-list bids at all.

Likewise arbitrary is the IMM’s reliance on its expectation of a surplus of capacity supply in future auctions. The IMM asserts that the expected surplus supply for FCA 12 of 1,250 MW will continue and indeed grow larger in FCAs 13-15, estimating that the system will be long in FCA 13 by 2,110 MW, which in turn is the basis for its prediction of 4.15 hours of Capacity Scarcity Conditions.<sup>82</sup> Market supply and demand balances, however, can and have changed significantly, going from projected deficits to actual surpluses, most recently between FCA 9 and FCA 12.<sup>83</sup> The NICR for FCA 12 is 33,725 MW – an auction clearing 1,250 MW above that would result in total capacity of 34,975 MW which on the FCA 12 demand curve would imply a price of \$3.99/kW-month.<sup>84</sup> But at 2,110 MW above the ICR, the price would be only \$0.25/kW-month.<sup>85</sup> A \$4.30/kW-month clearing price implies that the cleared capacity in FCA 12 would be around 34,905 MW, which translates to approximately 7 hours of Capacity Scarcity Conditions rather than the 4.15 hours assumed by the IMM.<sup>86</sup>

It is almost as if the IMM has assumed the system to be long, and to continue on a path of being increasingly long, in order to support its choice of Dynamic De-List Bids.<sup>87</sup> Together these results likewise show the inherent contradiction and bias in the IMM’s forecast of future auction clearing prices, and the arbitrary nature of the IMM and ISO-NE seeking to forecast future FCA clearing prices.

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<sup>81</sup> *Id.* at P 14.

<sup>82</sup> *Id.* at PP 16-17.

<sup>83</sup> *Id.*

<sup>84</sup> *Id.*

<sup>85</sup> *Id.*

<sup>86</sup> *Id.* at PP 19-21.

<sup>87</sup> *Id.* at P 18.

#### **4. THE IMM IGNORES THE POTENTIAL CONSEQUENCES OF SETTING THE DDBT BELOW A COST-BASED OFFER PRICE FOR THE MOST LIKELY MARGINAL RESOURCE TYPE**

In grounding the DDBT on its forecast of future auction clearing prices, the IMM is creating an incentive for those resources most likely to submit de-list bids - existing capacity resources contemplating retirement - to offer below-cost. This in turn may create incentives to reduce or eliminate costs that would otherwise improve system reliability if incurred. The IMM acknowledges a potential consequence of setting the DDBT “too low” – that it would create extra burden in that more Market Participants would be required to submit Static De-List Bids than would be the case with a higher DDBT<sup>88</sup> - but fails to recognize the potential consequences of the price signal it is sending to the market.

The IMM is sending a signal to the market that in its opinion an offer at or above \$4.30/kW-month is not likely to clear. The IMM’s forecast anchors Market Participant expectations, in that only the IMM and ISO-NE have access to each Market Participant offer and price quantity pair.<sup>89</sup> With this market information uniquely in hand, the IMM and ISO-NE can forecast auction clearing prices more so than any other entity, so its forecast will almost certainly influence Market Participants’ bid behavior and operational decisions.<sup>90</sup> As discussed earlier, an existing generating capacity resource may realize value in offering below cost in order to secure capacity revenues and for the potential of future capacity auctions. A Dynamic De-List Bid therefore may reflect this value through a below-cost offer intended to clear based on the ISO-NE and IMM forecast of capacity auction clearing prices. Conversely a Static

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<sup>88</sup> Patil/Bradley Testimony at 8.

<sup>89</sup> Sotkiewicz Testimony at P 31, in part *citing* Lax, David A., and James K. Sebenius. "Anchoring Expectations." *Negotiation* 7, no. 9 (September 2004): 9–11 (“[P]eople systematically assess uncertain quantities in unconsciously biased ways. In particular, people tend to fixate irrationally on the first number put forth in a negotiation--the anchor--no matter how arbitrary it might be. Even when people know the anchor has limited relevance, they insufficiently adjust their judgments away from it.”), available at: <https://gradweb.babson.edu/files/702/documents/Anchoring%20Expectations.pdf>.

<sup>90</sup> *Id.*

De-List Bid reviewed by the IMM has been deemed by the Commission as a reasonable measure of a cost-based offer.<sup>91</sup>

These incentives in turn could mitigate against the system reliability the Pay for Performance design is intended to incent. If the auction in fact clears below cost for one of more capacity resources, those resources will have an incentive to reduce or eliminate capital, operations and maintenance costs, in order to mitigate the losses or possibly realize a return.<sup>92</sup> Under the Pay for Performance design, a capacity resource faces the risk of performance penalties if it does not provide energy or reserves during a Capacity Scarcity Condition. With losses under the first settlement certain, a capacity resource may seek to mitigate the risk of further losses through cost reduction, particularly so given the current ISO-NE's expectation of relatively few Capacity Scarcity Condition hours and risk in coming Forward Capacity Auctions.<sup>93</sup>

The IMM's DDBT methodology – which requires an implicit forecast of the auction clearing price - creates bidding and operational incentives that frustrate the intent of the Pay for Performance design. The second-settlement payment and penalty provisions under the Pay for Performance design are intended to send price signals to improve capacity resource availability and performance.<sup>94</sup> When an existing capacity resource is compelled to offer below cost in order to secure capacity revenues in light of the IMM's forecast, it as well has an incentive to not make the expenditures the Forward Capacity

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<sup>91</sup> 151 FERC ¶ 61,270 at P 40 (2015).

<sup>92</sup> Sotkiewicz Testimony at P 30. ISO-NE and the IMM predict 4.15 Capacity Scarcity Condition hours in FCA 12. This relatively low risk expectation reduces the risk associated with any reductions in capital, operations, and maintenance costs.

<sup>93</sup> In its *Operational Fuel Security Analysis* (see Note 45, *supra*) ISO-NE forecasts Capacity Scarcity Conditions, among other outputs, under various contingency, retirement, and new capacity resource scenarios. The scenario results are for the 2024/2025 time period (the FCA 15 Capacity Commitment Period). Though almost all scenarios produce a much higher number of Capacity Scarcity Condition hours than 4.5 hours, ISO-NE recently cautioned against applying the values produced by the study to the Forward Capacity Auction. Market Participants therefore face the challenge of a market construct that values 4.15 hours of Capacity Scarcity Conditions but could be riskier if certain scenario outcomes come to pass.

<sup>94</sup> *ISO New England Inc. and New England Power Pool*, 147 FERC ¶ 61,172, at P 36 (2014).

Market is designed to incent, especially with the IMM's and ISO-NE's current expectation of a low risk of performance penalties.<sup>95</sup> If the number of Capacity Scarcity Condition hours is instead higher than expected, this contradictory incentive will threaten the system reliability the Pay for Performance design is intended to create.<sup>96</sup> It is unjust and unreasonable for the IMM to set the DDBT based on a methodology that creates these perverse offer and expenditure incentives.

**C. ABSENT SOME FURTHER SHOWING, THE EXISTING DDBT METHOD USING THE NET GOING FORWARD COST OF AN OIL STEAM UNIT REMAINS JUST AND REASONABLE**

If the Commission finds that the IMM and ISO-NE proposal is unjust and unreasonable, the existing DDBT methodology remains a just and reasonable basis to set the DDBT. As discussed, *supra*, the Commission found the existing methodology just and reasonable because it sets the DDBT at a reasonable estimate of a cost-based offer from the existing resource type most likely to leave the auction. The Pay for Performance design exists now as it did in FCA 9, and the IMM has available to it not only those Static De-List Bids offered and reviewed by it in FCA 9, but some number of additional Static De-List Bids offered and reviewed by it in FCAs 10-12, perhaps as many as 5,000 additional MWs. The IMM therefore has before it an "acceptable dataset" upon which to estimate the cost-based offer price for an oil-fired steam unit.

The only uncertainty in setting the DDBT based on the existing methodology is whether the Static De-List Bids from FCAs 10-12 should be considered in addition to those from FCA 9. As noted, ISO-NE and the IMM have not reported how many of the FCA 10-12 Static De-List Bids were withdrawn prior to IMM review or after. Those withdrawn after IMM review are likely relevant to estimating cost-based offers going forward. If the Commission finds these relevant, it should order an

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<sup>95</sup> Sotkiewicz Testimony at P 30.

<sup>96</sup> *Id.*

evidentiary hearing and settlement procedures, with a directive for ISO-NE and the IMM to calculate the DDBT based on the same methodology used for FCA 9, but to take into account those Static De-List Bids offered and reviewed by the IMM in FCAs 10-12.

#### **IV. RELIEF**

For the reasons explained above, NEPGA respectfully requests that the Commission find that the DDBT methodology proposed by the IMM and ISO-NE is unjust and unreasonable, and therefore deny their proposal to set the DDBT at \$4.30/kW-month beginning in FCA 13. The Commission should direct the IMM and ISO-NE to set the DDBT at a price representing a reasonable estimate of a cost-based offer from an oil-fired steam generating resource (or other resource type most likely to exit the auction), using Static De-List Bids from such resources reviewed by the IMM since the beginning of the Pay for Performance market design in FCA 9. If the Commission finds that the FCA 10-12 Static De-List Bids may be material to this determination, NEPGA respectfully requests that the Commission set this proceeding for hearing and settlement procedures pursuant to Section 206 of the Federal Power Act, with a direction that ISO-NE and the IMM set the Dynamic De-List Bid at a price representing a reasonable estimate of oil-fired steam units submitting Static De-List Bids reviewed by the Internal Market Monitor in FCAs 9 through 12.

**V. CONCLUSION**

Wherefore, NEPGA respectfully requests that the Commission grant this Motion to Intervene and the relief requested by NEPGA herein.

Respectfully Submitted,

/s/ Bruce Anderson

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**CERTIFICATE OF SERVICE**

I hereby certify that I have served a copy of the comments via email upon each person designated on the official service list compiled by the Secretary in this proceeding.

Dated at Boston, Massachusetts, this January 29, 2018.

/s/ Bruce Anderson

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