NEPOOL
NEW ENGLAND POWER POOL

David T. Doot
Secretary

March 17, 2021

VIA ELECTRONIC MAIL

TO: PARTICIPANTS COMMITTEE MEMBERS AND ALTERNATES
RE: Notice of March 24, 2021 NEPOOL Participants Committee Teleconference Meeting

Pursuant to Section 6.6 of the Second Restated New England Power Pool Agreement, notice is hereby given that a meeting of the Participants Committee will be held **via teleconference on *Wednesday*, March 24, 2021, at 10:00 a.m.** for the purposes:

1. To consider and take action, as appropriate, on the ISO's proposed modifications to previously-considered updates to the Cost of New Entry (CONE), Net CONE, and Performance Payment Rate (PPR) values to be used in FCA 16 and other related Tariff revisions. Proposed modifications/revisions will be reviewed and considered by the Markets Committee at its March 19, 2021 meeting. Background materials and a draft resolution are included and posted with this notice and will be supplemented and/or revised in advance of the Participants Committee meeting, if and as appropriate, following the Markets Committee meeting.

2. To consider and take action, as appropriate, on proposed modifications to NEPOOL's previously-approved set of Offer Review Trigger Price (ORTP) values and related Tariff revisions and the ISO's modified ORTP proposal. Further ORTP-related modifications are to be considered by the Markets Committee at its March 19, 2021 meeting. Background materials, including forms of resolutions for votes that may be taken at the meeting, are included with this supplemental notice and posted with the meeting materials, and will be supplemented and/or revised in advance of the Participants Committee meeting, if and as appropriate, following the Markets Committee meeting.

3. To transact such other business as may properly come before the Committee.

The dial-in number, to be used only by those who otherwise attend NEPOOL meetings and their approved guests, is **866-803-2146; Passcode: 7169224.** To join the WebEx, click this link and enter the event password **nepool**.

For your information, the March 24 meeting will be recorded. NEPOOL meetings, while not public, are open to all NEPOOL Participants, their authorized representatives and, except as otherwise limited for discussions in executive session, consumer advocates that are not members, federal and state officials and guests whose attendance has been cleared with the Committee Chair. All those in attendance or participating in the meeting are required to identify themselves and their affiliation during the meeting. Official records and minutes of meetings are posted publicly. No statements made in NEPOOL meetings are to be quoted or published publicly.

Respectfully yours,

/s/
David T. Doot, Secretary

M E M O R A N D U M

TO: NEPOOL Participants Committee Members and Alternates

FROM: Sebastian Lombardi and Rosendo Garza, NEPOOL Counsel

DATE: March 22, 2021

RE: Update: ISO-Proposed Revised CONE/Net CONE/PPR Values for FCA 16

This update is to advise you that the Markets Committee met on Friday, March 19 and considered, but failed with a 55.6% Vote[1] to recommend Participants Committee support for the ISO's proposed revisions to amend its filed Cost of New Entry (CONE), Net CONE, and Payment Performance Rate values for FCA 16 (the "CONE/Net CONE/PPR Values").[2]

Subsequent to its consideration of the ISO's proposed revised CONE/Net CONE/PPR Values, the Markets Committee separately considered related Tariff revisions designed to ensure that Market Participants who submitted Retirement De-List Bids, Permanent De-List Bids, and/or substitution auction test prices earlier this month can be adjusted or withdrawn for FCA 16 to reflect changes in the FCM parameters. With these Tariff revisions bifurcated from the CONE/Net CONE/PPR Values prior to voting, the Markets Committee unanimously recommended Participants Committee support for these added procedures to permit increased bidding flexibility for FCA 16.[3]

Additional materials, including an earlier NEPOOL Counsel memorandum, background materials from the ISO and a copy of the respective Tariff revisions, were circulated with the with the March 17 package of materials for the March 24 meeting.

---

[1] The individual Sector votes at the Markets Committee were as follows: *Generation* – 0% in favor, 16.70% opposed, 1 abstention; *Transmission* – 16.70% in favor, 0% opposed, 1 abstention; *Supplier* – 0% in favor, 16.70% opposed, 9 abstentions; *Publicly Owned Entity* – 16.70% in favor, 0% opposed, 0 abstentions; *Alternative Resources (AR)* – 5.50% in favor, 11.00% opposed, 8 abstentions; and *End User* – 16.70% in favor, 0% opposed, 2 abstentions. In addition, the votes from Provisional Members were 0% in favor, 0% opposed, and 1 abstention.

[2]

ISO-NE's Proposed FCM Parameters Values		
FCM Parameter	Dec. 31, 2020 Filed Values	ISO's Revised Values
CONE ($/kW-mo.)	$11.874	$11.978
Net CONE ($/kW-mo.)	$7.024	$7.114
PPR ($/MWh)	$8,782	$8,894

[3] Of note, there were no oppositions and 11 abstentions were recorded (5 in the Generation Sector, 5 in the Supplier Sector, and 1 in the AR Sector).

Similar to the Markets Committee's consideration, the Participants Committee will be asked to consider this matter in two separate votes and can use the following resolutions to take action at its March 24 meeting:

a. *Motion #1 – ISO's Proposed Revised CONE/Net CONE/PPR Values*

RESOLVED, that the Participants Committee approves the Tariff changes to Cost of New Entry (CONE), Net CONE, and the Performance Payment Rate (PPR) from those values previously considered at its December 3, 2020 meeting, as proposed by ISO-NE, all as contained in the materials provided to this Committee for this meeting, together with [those further changes recommended by this Committee and] such further non-substantive changes as the Chair and Vice-Chair of the Markets Committee may approve.

b. *Motion #2 – Increased FCA 16 Bidding Flexibility*

RESOLVED, that the Participants Committee approves revisions to Section III.13 of the Tariff to permit increased flexibility for adjusting/withdrawing Retirement De-List Bids, Permanent De-List Bids, and substitution auction test prices for FCA 16, as recommended by the Markets Committee at its March 19, 2021 meeting and circulated to this Committee for this meeting, together with [those further changes recommended by this Committee and] such further non-substantive changes as the Chair and Vice-Chair of the Markets Committee may approve.

M E M O R A N D U M

TO: NEPOOL Participants Committee Members and Alternates

FROM: Sebastian Lombardi and Rosendo Garza, NEPOOL Counsel

DATE: March 17, 2021

RE: ISO-Proposed Updates to CONE/Net CONE/PPR Values for FCA16

At the March 24, 2021 Participants Committee teleconference meeting, you will be asked to consider ISO-proposed revisions to amend the ISO's filed Cost of New Entry (CONE), Net CONE, and Payment Performance Rate (PPR) values for FCA16. The ISO reported that these changes are needed to account for a CONE reference unit being located in Tolland County rather than New London County as originally modeled. Also, as explained in further detail herein, in light of these proposed changes to the CONE/Net CONE/PPR values, you will be asked to consider Tariff revisions designed to ensure that stakeholders who submitted Retirement De-List Bids, Permanent De-List Bids, and/or substitution auction test prices last week for FCA16 can withdraw those bid(s) and/or test prices to reflect the changes in FCM Parameter Values. The Markets Committee (MC) is scheduled to consider these changes at its meeting this Friday, March 19. We will provide you additional materials summarizing any MC actions on this matter following that meeting.

In addition, this memorandum includes the following Attachments:

- Attachment A: The ISO-proposed updated Tariff redlines for FCA16 CONE/Net CONE/PPR values.
- Attachment B: The ISO's MC voting memorandum (dated March 15, 2021).
- Attachment C: Materials circulated to the Markets Committee for the March 19 meeting relating to these potential changes.

ISO-PROPOSED REVISIONS TO CONE/NET CONE/PPR VALUES

On December 31, 2020, the ISO filed its package of CONE/Net CONE/PPR values, seeking FERC approval of those values on or before March 1, 2021.[1] Earlier this month, the FERC issued a deficiency letter seeking additional information from ISO-NE.[2] The ISO's consultants in working to assemble materials to respond to the deficiency letter identified that potential sites for the location of a CONE reference unit were in Tolland County, not New London County as they had originally modeled. In materials circulated to the MC, the ISO has

[1] *ISO New England Inc.*, Updates to CONE, Net CONE, and Capacity Performance Payment Rate, Docket No. ER21-787-000 (filed Dec. 31, 2020).

[2] *ISO New England Inc.*, Deficiency Letter, Docket No. ER21-787-000 (issued Mar. 1, 2021). To review the letter, please click here.

explained that this change in location resulted in an increase in the property tax rate input assumed in the ISO's model from 2.89 percent to 3.32 percent.

With that change, the ISO is now proposing to update the set of CONE/Net CONE/PPR values that it filed on December 31, as follows:

Table 1
Proposed FCM Parameters Values

FCM Parameter	Dec. 31, 2020 Value	Mar. 15, 2021 Value
CONE ($/kW-mo.)	$11.874	$11.978
Net CONE ($/kW-mo.)	$7.024	$7.114
PPR ($/MWh)	$8,782	$8,894

To reflect these different values, the ISO proposes to update Tariff Sections III.13.2.4 and III.13.7.2.5, as reflected in Attachment A.

PROPOSED ASSOCIATED TARIFF REVISIONS

As stated in its memorandum for the March 19 MC meeting, which is included as Attachment C, the ISO acknowledged that some Participants relied on the December 31 filed Net CONE and PPR values when submitting Retirement and Permanent De-List Bids, as well as substitution auction demand bids and test prices. As a result, the ISO proposes adding language to Tariff Section III.13 to establish procedures to permit some flexibility for FCA16, including revisions to permit Participants the ability to withdraw their retirement and/or substitution auction demand bid/test price submissions.[3]

UPCOMING MARCH 19 MARKETS COMMITTEE MEETING

At its March 19, 2021 meeting, the MC will review and be asked to consider the ISO's proposed updates to its CONE/Net CONE/PPR values and related Tariff revisions. After that meeting, NEPOOL Counsel will circulate an addendum updating the Participants Committee in advance of the March 24 meeting.

[3] More specifically, as detailed in the materials circulated for the March 19 MC meeting, the ISO proposes that, on or before June 3, 2021, the Internal Market Monitor (IMM) will modify any submitted bids and test prices to reflect the impact of the updated CONE/Net CONE/PPR values. The IMM will then notify the affected Participants on June 3 of the updated Permanent De-List Bids, Retirement De-List Bids, and substitution auction test prices and provide each affected Participant five business days to submit, if it wishes, a written notice to the IMM requesting to withdraw its bids and/or test prices if it wishes. Relatedly, the IMM will recalculate and repost the Dynamic De-List Bid Threshold to reflect the impact of the revised values. On or before June 11, 2021, the IMM will repost the information regarding Permanent De-List Bids and Retirement De-List Bids (pursuant to Section III.13.1.8(e)), as well as the information about the aggregate quantity of supply offers and demand bids that chose to participate in the substitution auction (pursuant to Section III.13.1.8(g)).

PARTICIPANTS COMMITTEE CONSIDERATION

The Participants Committee can use the following form of resolutions, in one or two separate votes if desired, to consider this matter:

> RESOLVED, that the Participants Committee approves the Tariff changes to Cost of New Entry (CONE), Net CONE, and the Performance Payment Rate (PPR) from those values previously considered at its December 3, 2020 Participants Committee, as [proposed by ISO-NE] or [recommended by the MC], all as contained in the materials provided by ISO-NE for MC consideration at its March 19 meeting and to this Committee for this meeting, together with [those further changes recommended by the MC or by this Committee and] such further non-substantive changes as the Chair and Vice-Chair of the MC may approve.
>
> FURTHER RESOLVED, that the Participants Committee approves revisions to Section III.13 of the Tariff to permit increased flexibility for adjusting/withdrawing Retirement De-List Bids, Permanent De-List Bids, and substitution auction test prices for FCA16, as contained in materials provided by ISO-NE for MC consideration at its March 19 meeting and to this Committee for this meeting, together with [those further changes recommended by the MC or by this Committee and] such further non-substantive changes as the Chair and Vice-Chair of the MC may approve.

If anyone has questions, please contact NEPOOL Counsel (slombardi@daypitney.com and rgarza@daypitney.com).

The "base" redlined changes are the version voted on at the December 2020 Participants Committee meeting. Changes to the version of the Tariff redlines voted on at the December 2020 Participants Committee meeting are highlighted in yellow.

***

I.2.2. Definitions:

In this Tariff, the terms listed in this section shall be defined as described below:

***

Net CONE is an estimate of the Cost of New Entry, net of ~~the first year~~ non-capacity market revenues, for a reference technology resource type and is intended to equal the amount of capacity revenue the reference technology resource would require~~, in its first year of operation,~~ to be economically viable given reasonable expectations of the ~~first year~~ energy and ancillary services revenues under long-term equilibrium conditions~~, and projected revenue for subsequent years~~.

***

Senior Officer means an officer of the subject entity with the title of vice president (or similar office) or higher, or another officer designated in writing to the ISO by that officer.

***

III.13 Forward Capacity Market

The ISO shall administer a forward market for capacity ("Forward Capacity Market") in accordance with the provisions of this Section III.13. For each one-year period from June 1 through May 31, starting with the period June 1, 2010 to May 31, 2011, for which Capacity Supply Obligations are assumed and payments are made in the Forward Capacity Market ("Capacity Commitment Period"), the ISO shall conduct a Forward Capacity Auction in accordance with the provisions of Section III.13.2 to procure the amount of capacity needed in the New England Control Area and in each modeled Capacity Zone during the Capacity Commitment Period, as determined in accordance with the provisions of Section III.12. To be eligible to assume a Capacity Supply Obligation for a Capacity Commitment Period through the Forward Capacity Auction, a resource must be accepted in the Forward Capacity Auction qualification process in accordance with the provisions of Section III.13.1.

Special Retirement De-List Bid, Permanent De-List Bid and Substitution Auction Demand Bid Modification and Withdrawal Provisions for the sixteenth Forward Capacity Auction (associated with the Capacity Commitment Period beginning on June 1, 2025). For the sixteenth Forward Capacity Auction (associated with the Capacity Commitment Period beginning on June 1, 2025), on or before June 3, 2021, the Internal Market Monitor will modify any submitted Permanent De-List Bids, Retirement De-List Bids and substitution auction test prices (whether or not associated with a Retirement De-List Bid) submitted for the sixteenth Forward Capacity Auction to reflect the impact of updated

CONE, Net CONE and Capacity Performance Payment Rate values accepted by the Commission in Docket No. ER21-787.

The Internal Market Monitor will provide Lead Market Participants with updated Permanent De-List Bids, Retirement De-List Bids and substitution auction test prices in the retirement determination notifications that it issues on June 3, 2021. Within 5 Business Days of the issuance of the retirement determination notifications, a Lead Market Participant may withdraw its Retirement De-List Bid, Permanent De-List Bid, or substitution auction demand bid, and the attendant substitution auction test price, by written notification to the Internal Market Monitor. The election to withdraw a Retirement De-List Bid will also withdraw the associated substitution auction demand bid.

Special Dynamic De-List Threshold and Certain Information Publications for the sixteenth Forward Capacity Auction (associated with the Capacity Commitment Period beginning on June 1, 2025). For the sixteenth Forward Capacity Auction (associated with the Capacity Commitment Period beginning on June 1, 2025), on or before June 3, 2021, the ISO will recalculate and re-post the Dynamic De-List Bid Threshold pursuant to Section III.13.1.2.3.1.A to reflect the impact of updated CONE and Net CONE values accepted by the Commission for use in the sixteenth Forward Capacity Auction in Docket No. ER21-787.

In addition, the ISO will, on or before June 11, 2021, repost information concerning Permanent De-List Bids and Retirement De-List Bids pursuant to Section III.13.1.8(e) and will repost information about the aggregate quantity of supply offers and demand bids that have elected to participate in the substitution auction pursuant to Section III.13.1.8(g).

***

III.13.2. Annual Forward Capacity Auction.

***

III.13.2.3. Conduct of the Forward Capacity Auction.

***

III.13.2.3.2. Step 2: Compilation of Offers and Bids.

The auctioneer shall compile all of the offers and bids for that round, as follows:

(a) **Offers from New Generating Capacity Resources, New Import Capacity Resources, and New Demand Capacity Resources.**

(i) The Project Sponsor for any New Generating Capacity Resource, New Import Capacity Resource that is backed by a single new External Resource and that is associated with an

investment in transmission that increases New England's import capability, New Import Capacity Resource that is associated with an Elective Transmission Upgrade, or New Demand Capacity Resource accepted in the qualification process for participation in the Forward Capacity Auction may submit a New Capacity Offer indicating the quantity of capacity that the Project Sponsor would commit to provide from the resource during the Capacity Commitment Period at that round's prices. A New Capacity Offer shall be defined by the submission of one to five prices, each strictly less than the Start-of-Round Price but greater than or equal to the End-of-Round Price, and an associated quantity in the applicable Capacity Zone. Each price shall be expressed in units of dollars per kilowatt-month to an accuracy of at most three digits to the right of the decimal point, and each quantity shall be expressed in units of MWs to an accuracy of at most three digits to the right of the decimal point. A New Capacity Offer shall imply a supply curve indicating quantities offered at all of that round's prices, pursuant to the convention of Section III.13.2.3.2(a)(iii).

(ii) If the Project Sponsor of a New Generating Capacity Resource, New Import Capacity Resource that is backed by a single new External Resource and that is associated with an investment in transmission that increases New England's import capability, New Import Capacity Resource that is associated with an Elective Transmission Upgrade, or New Demand Capacity Resource elects to offer in a Forward Capacity Auction, the Project Sponsor must offer the resource's full FCA Qualified Capacity at the Forward Capacity Auction Starting Price in the first round of the auction. A New Capacity Offer for a resource may in no event be for greater capacity than the resource's full FCA Qualified Capacity at any price. A New Capacity Offer for a resource may not be for less capacity than the resource's Rationing Minimum Limit at any price, except where the New Capacity Offer is for a capacity quantity of zero.

(iii) Let the Start-of-Round Price and End-of-Round Price for a given round be P_S and P_E, respectively. Let the m prices ($1 \leq m \leq 5$) submitted by a Project Sponsor for a modeled Capacity Zone be $p_1, p_2, \ldots, p_m$, where $P_S > p_1 > p_2 > \ldots > p_m \geq P_E$, and let the associated quantities submitted for a New Capacity Resource be $q_1, q_2, \ldots, q_m$. Then the Project Sponsor's supply curve, for all prices strictly less than P_S but greater than or equal to P_E, shall be taken to be:

$$S(p) = \begin{cases} q_0, & \text{if } p > p_1, \\ q_1, & \text{if } p_2 < p \le p_1, \\ q_2, & \text{if } p_3 < p \le p_2, \\ \dots \quad \dots & , \\ q_m, & \text{if } p \le p_m. \end{cases}$$

where, in the first round, q_0 is the resource's full FCA Qualified Capacity and, in subsequent rounds, q_0 is the resource's quantity offered at the lowest price of the previous round.

(iv) Except for Renewable Technology Resources and except as provided in Section III.13.2.3.2(a)(v), a New Capacity Resource may not include any capacity in a New Capacity Offer during the Forward Capacity Auction at any price below the resource's New Resource Offer Floor Price. The amount of capacity included in each New Capacity Offer at each price shall be included in the aggregate supply curves at that price as described in Section III.13.2.3.3.

(v) Capacity associated with a New Import Capacity Resource (other than a New Import Capacity Resource that is backed by a single new External Resource and that is associated with an investment in transmission that increases New England's import capability or a New Import Capacity Resource that is associated with an Elective Transmission Upgrade) shall be automatically included in the aggregate supply curves as described in Section III.13.2.3.3 at prices at or above the resource's offer prices (as they may be modified pursuant to Section III.A.21.2) and shall be automatically removed from the aggregate supply curves at prices below the resource's offer prices (as they may be modified pursuant to Section III.A.21.2), except under the following circumstances:

In any round of the Forward Capacity Auction in which prices are below the Dynamic De-List Bid Threshold, the Project Sponsor for a New Import Capacity Resource (other than a New Import Capacity Resource that is backed by a single new External Resource and that is associated with an investment in transmission that increases New England's import capability or a New Import Capacity Resource that is associated with an Elective Transmission Upgrade) with offer prices (as they may be modified pursuant to Section III.A.21.2) that are less than the Dynamic De-List Bid Threshold may submit a New Capacity Offer indicating the quantity of capacity that the Project Sponsor would commit to provide from the resource during the Capacity Commitment Period at that round's prices. Such an offer shall be defined by the submission of one to five

prices, each less than the Dynamic De-List Bid Threshold (or the Start-of-Round Price, if lower than the Dynamic De-List Bid Threshold) but greater than or equal to the End-of-Round Price, and a single quantity associated with each price. Such an offer shall be expressed in the same form as specified in Section III.13.2.3.2(a)(i) and shall imply a curve indicating quantities at all of that round's relevant prices, pursuant to the convention of Section III.13.2.3.2(a)(iii). The curve may not increase the quantity offered as the price decreases.

***

III.13.2.4. Forward Capacity Auction Starting Price and the Cost of New Entry.

The Forward Capacity Auction Starting Price is max [1.6 multiplied by Net CONE, CONE]. References in this Section III.13 to the Forward Capacity Auction Starting Price shall mean the Forward Capacity Auction Starting Price for the Forward Capacity Auction associated with the relevant Capacity Commitment Period.

CONE for the Forward Capacity Auction for the Capacity Commitment Period beginning on June 1, ~~2021~~ 2025 is $~~11.874~~~~11.35~~11.978/kW-month.

Net CONE for the Forward Capacity Auction for the Capacity Commitment Period beginning on June 1, ~~2021~~2025 is $~~7.024~~~~8.04~~7.114/kW-month.

CONE and Net CONE shall be recalculated ~~for the Capacity Commitment Period beginning on June 1, 2025 and~~ no less often than once every three years ~~thereafter~~. ~~-~~Whenever these values are recalculated, the ISO will review the results of the recalculation with stakeholders and the new values will be filed with the Commission prior to the Forward Capacity Auction in which the new value is to apply.

Between recalculations, CONE and Net CONE will be adjusted for each Forward Capacity Auction pursuant to Section III.A.21.1.2(e). Prior to applying the annual adjustment for the Capacity Commitment Period beginning on June 1, 2019, Net CONE will be reduced by $0.43/kW-month to reflect the elimination of the PER adjustment. The adjusted CONE and Net CONE values will be published on the ISO's web site.

***

III.13.7. Performance, Payments and Charges in the FCM.

Revenue in the Forward Capacity Market for resources providing capacity shall be composed of Capacity Base Payments as described in Section III.13.7.1 and Capacity Performance Payments as described in Section III.13.7.2, adjusted as described in Section III.13.7.3 and Section III.13.7.4. Market Participants with a Capacity Load Obligation will be subject to charges as described in Section III.13.7.5.

In the event of a change in the Lead Market Participant for a resource that has a Capacity Supply Obligation, the Capacity Supply Obligation shall remain associated with the resource and the new Lead Market Participant for the resource shall be bound by all provisions of this Section III.13 arising from such Capacity Supply Obligation. The Lead Market Participant for the resource at the start of an Obligation Month shall be responsible for all payments and charges associated with that resource in that Obligation Month.

***

III.13.7.2 Capacity Performance Payments.

***

III.13.7.2.5 Capacity Performance Payment Rate.

For the three Capacity Commitment Periods beginning June 1, 2018 and ending May 31, 2021, the Capacity Performance Payment Rate shall be $2000/MWh. For the three Capacity Commitment Periods beginning June 1, 2021 and ending May 31, 2024, the Capacity Performance Payment Rate shall be $3500/MWh. For the Capacity Commitment Period beginning on June 1, 2024 and ending on May 31, 2025~~ and thereafter~~, the Capacity Performance Payment Rate shall be $5455/MWh. For the Capacity Commitment Period beginning on June 1, 2025 and ending on May 31, 2026 and thereafter, the Capacity Performance Payment Rate shall be $~~87828~~8894/MWh. The ISO shall review the Capacity Performance Payment Rate in the stakeholder process as needed and shall file with the Commission a new Capacity Performance Payment Rate if and as appropriate.

***

ISO new england

memo

To: NEPOOL Markets Committee (MC)

From: Deborah Cooke, Principal Analyst

Date: March 15, 2021

Subject: Updates to the Cost of New Entry (CONE), Net CONE, and Performance Payment Rate (WMPP IDs: 139 and 144)

The ISO is requesting a vote on Tariff revisions to update its proposed Cost of New Entry (CONE), Net CONE, and Performance Payment Rate (PPR) values for use in the sixteenth Forward Capacity Auction (FCA 16) for the 2025-26 Capacity Commitment Period to correct an error with the identified location of the reference unit. The ISO is also proposing Tariff revisions to support additional flexibility for Permanent and Retirement Delist Bid submittals for FCA 16.

On March 11, 2021, the ISO notified the MC that an error was identified regarding the location of the reference unit for the CONE calculation. In preparing the materials to respond to the Commission's March 1st deficiency notice, it was discovered that the sites must be located over the border from New London County, in Tolland County, in order to meet the criteria that Concentric established for selecting the location of the reference unit. The ISO is therefore updating its FCA 16 CONE calculation to account for the corrected location of the reference unit from New London County to Tolland County and updated the PPR to account for the corrected CONE value.

For convenience, the following table provides a comparison of the ISO's updated proposed CONE, Net CONE, and PPR values with the values filed on December 31, 2020.

Table 1 – Proposed CONE, Net CONE, and PPR

FCM Parameter	December 31, 2020 Value	March 15, 2021 Value
Cost of New Entry ($/kW-month)	$11.874	$11.978
Net Cost of New Entry ($/kW-month)	$7.024	$7.114
Performance Payment Rate ($/MWh)	$8,782	$8,894

The ISO recognizes that the Net CONE and PPR values that stakeholders relied upon in submitting Retirement and Permanent De-List Bids, as well as substitution auction demand bids and test prices, are now being revised and will be filed with FERC as updated values. The ISO is therefore proposing Tariff changes to allow flexibility for Permanent and Retirement De-List Bids, as well as substitution auction demand bids and test prices. The proposed Tariff revisions require the Internal Market

Monitor to update Retirement and Permanent De-List Bid submissions, as well as substitution auction test price submissions, to reflect the versions of the Net CONE and PPR values that are accepted by the Commission. In addition, the proposed Tariff changes allow Lead Market Participants to withdraw Permanent De-List Bids, Retirement De-List Bids, substitution auction demand bids, and associated substitution auction test prices, after the participant receives the updated bid and test price values from the Internal Market Monitor in early June of 2021. Finally, the proposed Tariff revisions will require the ISO to repost aggregated information concerning Retirement De-List Bids, Permanent De-List Bids, and the quantity of supply offers and demand bids that have elected to participate in the substitution auction for FCA 16.

FCM Parameters: Net CONE Deficiency Response and Related Proposed Revisions

Overview of recently identified issues, resolutions, and Tariff revisions

Deborah Cooke

413.540.4488 | DCOOKE@ISO-NE.COM

NEPOOL PARTICIPANTS COMMITTEE
MAR 24, 2021 MEETING, AGENDA ITEM #1
Attachment C1

FCM Parameters Response

WMPP IDs: 139 & 144

Proposed Effective Date: For 2025-2026 Capacity Commitment Period beginning June 1, 2025 (CCP 16)

- In 2020, ISO reviewed with stakeholders updates to the FCM Parameters for the 2025-2026 Capacity Commitment Period (CCP 16)
  - Cost of New Entry (CONE), Net CONE, and Performance Payment Rate (PPR) were filed with the Commission on December 31, 2020
- FERC issued a deficiency letter on the filing on March 1, 2021 requesting additional information
  - In preparing its response, the ISO and its consultants, Concentric Energy Advisors (CEA) and Mott MacDonald, identified inconsistencies in locating specific sites for the reference unit
  - The ISO is proposing a correction to address this issue
- The PPR is also being adjusted based on the revised gross CONE input
  - The PPR change, in turn, impacts the ORTP of generating resources (by approximately $0.01 - $0.03)
  - Addressed in the next agenda item, along with revisions to the Solar ORTP values
- In light of these revisions to the FCM Parameters and in response to stakeholder concerns, the ISO is proposing Tariff revisions to support additional flexibility for Permanent and Retirement De-list Bid submittals for FCA 16

Roadmap for discussion

1. FERC deficiency letter and site determination for the modeled reference technology
   a) Modification of input assumptions and impact on CONE and Net CONE
   b) CEA presentation
2. Update ('flow thru') of CONE correction to the Performance Payment Rate (PPR)
3. Process accommodations and proposed Tariff provisions for FCA 16 to provide flexibility for Permanent/Retirement De-List Bid submittals and related substitution auction submittals

1

CONCENTRIC ENERGY ADVISORS: REFERENCE LOCATION IMPACTS ON CONE AND NET CONE

Corrections and update resulting from FERC deficiency letter response preparation related to reference technology siting

Summary of Corrected FCM Parameters for CONE, Net CONE and the PPR

Description	Previously Filed: December 31, 2020 Value	Proposed corrected: March 19, 2021 Value	Difference (Proposed–Previous)
Cost of New Entry ($/kW-month)	$11.874	$11.978	$0.104
Net Cost of New Entry ($/kW-month)	$7.024	$7.114	$0.090
Performance Payment Rate ($/MWh)	$8,782	$8,894	$112

- CEA presentation with details on Gross CONE correction (and Net CONE)
  - There is no change to the E&AS revenue offsets
- This presentation demonstrates how the proposed correction to Gross CONE impacts the PPR; details on that 'flow thru' calculation to the updated PPR are on slides 6-8

2

PERFORMANCE PAYMENT RATE UPDATE

"Flow-thru" update to reflect the proposed corrected Gross CONE value

Recall: Inputs to the PPR formula reflect the proposed reference technology CONE value

From November 9-10, 2020 MC, slide 6; revision in blue

- The PPR formula is:

$$PPR = \frac{(Gross\ CONE\ - E\&AS)}{Hours_{new}\ \times\ Actual_{new}}$$

- The proposed correction to Gross CONE, therefore, impacts the PPR *(next)*

Input Description	Value	Description and source of data
Gross CONE	$ /kW-mo.	Estimated cost of new entry for the combustion turbine
E&AS Revenues	$ /kW-mo.	Energy and ancillary services revenues (excluding Capacity Performance Payments) for the combustion turbine
Hours	11.3	Expected annual scarcity hours (at criteria) from the ISO scarcity hours review
Actual Performance	0.98	Average performance for the GE 7HA.02 combustion turbine

Corrected and Previously-Filed PPR Inputs

Input	Previously Filed	Proposed Corrected
Qualified Capacity (MW)	356	356
Gross CONE ($/kW-mo. of Qualified Capacity)	$11.87	$11.98
E&AS Revenues:		
Energy & Reserves ($/kW-mo. of QC)	$2.97	$2.97
Scarcity ($/kW-mo. of QC)	$0.80	$0.80
ESI Revenues ($/kW-mo. of QC)	-	-
Total E&AS Revenue ($/kW-mo. of QC)	$3.77	$3.77
Gross CONE– E&AS ($/kW-mo. of QC)	$8.10	$8.21
Hours (per year)	11.3	11.3
Actual Performance (per MW)	0.98	0.98
PPR ($/MWh)	**$8,782**	**$8,894**

Notes: FRM revenues represent approximately 36% of the E&AS revenue offset
Values are in 2025$ and are based on qualified capacity.
Intermediate values may reflect rounding

3

RETIREMENT AND PERMANENT DE-LIST BIDS

Providing flexibility for submitted Permanent and Retirement De-List Bids pending final FERC determination of FCM Parameters for FCA 16 (CONE, Net CONE, and PPR)

Provide flexibility for submitted Permanent and Retirement De-List Bids and substitution auction test prices

- Permanent and Retirement Bid and substitution auction test price submittals were due March 12, 2021
  - Based on ISO-filed CONE, Net CONE and PPR values
- New modifications to CONE, Net CONE and PPR values warrant adjustments to the de-list bid and substitution auction test price submittals, plus a provision to withdraw bids/test prices for FCA 16
- ISO is proposing Tariff revisions to address such adjustments and withdrawals, for FCA 16 only
  - Upon receipt of FERC Orders accepting the FCA 16 parameters, IMM will perform mechanical adjustments to participant-submitted Permanent and Retirement De-List Bids and test prices relevant to the CONE, Net CONE and PPR values
  - Updated bids and substitution auction test prices will be provided to Lead Market Participants in the retirement determination notifications issued June 3, 2021

(continues on next slide)

Process accommodations provide flexibility for submitted Permanent/Retirement De-list Bids and test prices *(cont.)*

- Permanent/Retirement De-list Bid and Demand Bid Withdrawal
  - For FCA 16, Lead Market Participants will be allowed to withdraw Permanent De-List Bids, Retirement De-List Bids, and substitution auction demand bids after receiving the RDN
    - Associated substitution auction test prices would be removed
  - Written notification to IMM required for withdrawal
    - During the existing window for suppliers to choose conditional or unconditional retirement treatment (June 3rd to June 10th)
  - Withdrawal will remove the obligation for a supplier to re-submit a retirement bid for the next FCA

Next: Tariff revisions to support these changes for FCA 16

Summary of Tariff revisions:
De-List Bids and Substitution Auction Test Prices

Special Retirement De-List Bid, Permanent De-List Bid and Substitution Auction Demand Bid Modification and Withdrawal Provisions for the sixteenth Forward Capacity Auction (associated with the Capacity Commitment Period beginning on June 1, 2025). For the sixteenth Forward Capacity Auction (associated with the Capacity Commitment Period beginning on June 1, 2025), on or before June 3, 2021, the Internal Market Monitor will modify any submitted Permanent De-List Bids, Retirement De-List Bids and substitution auction test prices (whether or not associated with a Retirement De-List Bid) submitted for the sixteenth Forward Capacity Auction to reflect the impact of updated CONE, Net CONE and Capacity Performance Payment Rate values accepted by the Commission in Docket No. ER21-787, and the impact of updated Offer Review Trigger Prices accepted by the Commission for use in the sixteenth Forward Capacity Auction.

The Internal Market Monitor will provide Lead Market Participants with updated Permanent De-List Bids, Retirement De-List Bids and substitution auction test prices in the retirement determination notifications that it issues on June 3, 2021. Within 5 Business Days of the issuance of the retirement determination notifications, a Lead Market Participant may withdraw its Retirement De-List Bid, Permanent De-List Bid, or substitution auction demand bid, and the attendant substitution auction test price, by written notification to the Internal Market Monitor. The election to withdraw a Retirement De-List Bid will also withdraw the associated substitution auction demand bid.

Continues next slide

Summary of Tariff revisions: Dynamic De-List Bid Threshold

Special Dynamic De-List Threshold and Certain Information Publications for the sixteenth Forward Capacity Auction (associated with the Capacity Commitment Period beginning on June 1, 2025). For the sixteenth Forward Capacity Auction (associated with the Capacity Commitment Period beginning on June 1, 2025), on or before June 3, 2021, the ISO will recalculate and re-post the Dynamic De-List Bid Threshold pursuant to Section III.13.1.2.3.1.A to reflect the impact of updated CONE and Net CONE values accepted by the Commission for use in the sixteenth Forward Capacity Auction in Docket No. ER21-787.

In addition, the ISO will, on or before June 11, 2021, repost information concerning Permanent De-List Bids and Retirement De-List Bids pursuant to Section III.13.1.8(e) and will repost information about the aggregate quantity of supply offers and demand bids that have elected to participate in the substitution auction pursuant to Section III.13.1.8(g).

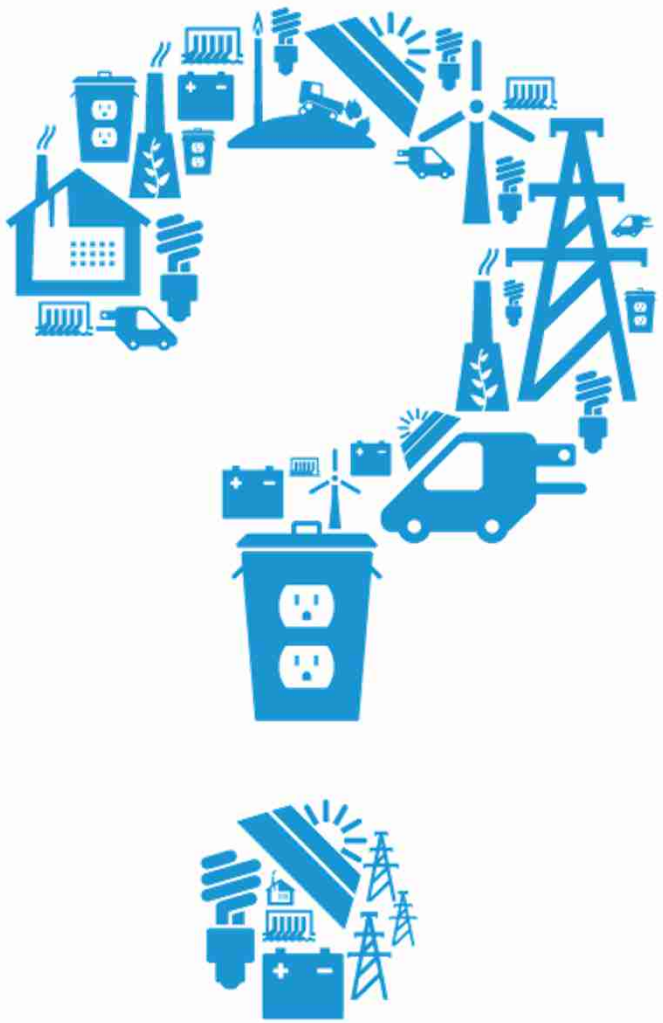
Conclusion

- The location of the reference technology was corrected
- Property tax rate updated, resulting in updates to CONE, Net CONE, and PPR
  - The revised PPR has “flow-thru” updates to certain ORTPs
- In recognition of the uncertainty related to FERC orders on the FCA 16 values, ISO has taken steps to provide flexibility for Permanent and Retirement De-List Bids and related substitution auction submittals for FCA 16

Stakeholder Schedule

Stakeholder Committee and Date	Scheduled Project Milestone
Markets Committee March 19, 2021	• MC vote on corrected CONE, Net CONE, and PPR values to reflect reference technology siting modification and flexibility in submitting bids/substitution auction test prices
Participants Committee March 24, 2021	• PC vote on corrected CONE, Net CONE, and PPR values to reflect reference technology siting modification and flexibility in submitting bids/substitution auction test prices
March 2021	• ISO response filing to FERC deficiency letter and corrected CONE, Net CONE and PPR values

Questions



Acronyms Used in this Presentation

CCP = Capacity Commitment Period

CONE = Cost of New Entry

E&AS = Energy and Ancillary Services

FCA = Forward Capacity Auction

IMM = Internal Market Monitor

ITC = Investment Tax Credit

Net CONE = Net Cost of New Entry

ORTP = Offer Review Trigger Price

PPR = Performance Payment Rate

ISO-NE NET CONE & ORTP ANALYSIS:

UPDATES TO NET CONE

MARCH 19, 2021

Net CONE Reference Unit Location: Effect on Property Tax

- Property taxes are different in Tolland County vs. New London County
- Property tax rate is equal to 3-year average mill rate for municipalities within the proposed county (2020-2018)
  - For New London County, this includes 21 cities and towns, with an average mill rate of **2.89%**
  - For Tolland County, this includes 13 cities and towns, with an average mill rate of **3.32%**
- The resulting impact to Net CONE, factoring in the impact to PPR, is approximately $0.09/kW-mo
- Net CONE Impact:
  - Before: $7.024
  - After: $7.114
  - The PPR will change from $8,782 to $8,894, as discussed in ISO-NE materials
  - Property tax rate change does not affect gas unit ORTPs (1% property tax assumption for all ORTPs)
- All changes have been incorporated into the DCF model

DRAFT 3.23.21

ISO-NE NET CONE AND ORTP ANALYSIS

AN EVALUATION OF THE NET COST OF NEW ENTRY PARAMETER TO BE USED IN THE FORWARD CAPACITY AUCTION

FCA-16 AND FORWARD

ADDENDUM

MARCH 2021

CONCENTRIC ENERGY ADVISORS, INC.

MOTT MACDONALD

TABLE OF CONTENTS

TABLE OF TABLES

SECTION 1: SUMMARY

A. Overview

ISO-NE engaged Concentric Energy Advisors, Inc. (Concentric or CEA) to conduct an independent analysis of the Cost of New Entry (CONE)/Net CONE and Offer Review Trigger Price values for FCA 16. Concentric and its subcontractor, Mott MacDonald, worked together to develop the recommendations presented in a report finalized in December 2020 (December Report).

This Addendum is provided as a supplement to the original December Report that explains CEA's Cost of New Entry (CONE)/Net CONE Study process, analysis and findings. This Addendum includes revised CONE, Net CONE and Performance Payment Rate values that reflect the correction of previous inconsistencies in the screening criteria for the reference unit. The CEA Report incorrectly stated that a hypothetical reference unit could be sited within 2 miles of a gas transmission mainline and 345 kV electric transmission network in New London County, Connecticut. This Addendum revises the hypothetical reference unit location to Tolland County, Connecticut. The reference unit could be hypothetically sited in multiple locations that are within 2 miles of a gas transmission mainline and 345 kV electric transmission network. However, consistent with prior CONE Studies, CEA did not complete an engineering study for a specific site or conduct a detailed feasibility analysis for the siting of an actual proposed project.

B. Summary of Recommendations

Based on our analysis, we recommend the following gross CONE and Net CONE values shown in Table 1.

Table 1: Net CONE Reference Unit Summary (2025$)

	1x0 7HA.02 (CT)
NOMINAL INSTALLED CAPACITY (MW)	371
QUALIFIED CAPACITY	356[1]
INSTALLED COST (2019$/kW)	777
REAL ATWACC	6.1%
GROSS CONE (2025$/kW-MONTH) INSTALLED	$11.499
GROSS CONE (2025$/kW-MONTH) QUALIFIED	**$11.978**
REVENUE OFFSETS (2025$/kW-MONTH)	$4.669
NET CONE (2025$/kW-MONTH) INSTALLED	$6.829
NET CONE (2025$/kW-MONTH) QUALIFIED	**$7.114**

[1] This value represents the installed capacity of 376 MW adjusted for degradation (1.41% degradation factor = nominal installed capacity of 371 MW) and adjusted for the qualified capacity percentage (96% of 371 = 356 MW).

SECTION 2:
NET CONE STUDY – REVISED REFERENCE UNIT LOCATION

A. Overview of Reference Unit Location

In response to a Federal Energy Regulatory Commission Deficiency Notice issued on March 1, 2021,[2] ISO-NE requested that CEA identify an example of a potential site for the Net CONE reference unit in or near New London County, Connecticut, that is two miles from both a main natural gas transmission line and the point of interconnection to the electric grid.

In order to provide an example of such a site, we reviewed natural gas and electric infrastructure within two miles of the gas and electric grids in New London County, Tolland County, and Windham County, Connecticut. In the course of this analysis, we determined that a potential site meeting the specified criteria is more likely to be located in Tolland County. More specifically, CEA identified available greenspace within Tolland County that is within two miles of both the Algonquin gas transmission mainline and the 345 kV electric transmission line; CEA further confirmed that no such sites are available within New London County.

In order to reconcile a 2 mile interconnection to the Algonquin gas transmission mainline, CEA recommends moving the reference unit location from New London County to Tolland County, Connecticut. The map attached hereto as Exhibit A identifies a location that meets the specified criteria, including the necessary acreage for siting the reference unit (8 acres).[3]

Because of the resulting change in the general location from New London County to Tolland County, CEA performed an assessment of the inputs into the CONE/Net CONE calculation to determine which inputs may be impacted by the change in the reference unit's location. CEA evaluated each location-related input to the December 2020 CONE Study and determined that only the assumed property tax required adjustment to reflect the change to Tolland County.[4] To determine the impact of the change in property tax rate, consistent with the approach to determine the property tax rate as described in the December Report, Concentric estimated property taxes by reviewing all available mill rates for municipalities within the proposed county for years 2018 - 2020. The original property tax rate for New London County included 21 cities and towns, with a three-year average mill rate of 2.89%. The revised property tax rate for Tolland County is based on 13 cities and towns, with a three-year average mill rate of 3.32%. The resulting impact to Net CONE, factoring in the impact to the Capacity Performance Payment Rate (PPR)[5], is approximately $0.09/kW-mo.

No other components of the estimate were impacted as a result of this location change. A summary of the CEA and Mott MacDonald analysis on these points is below. We note that the estimates have

---

2 Deficiency Notice, FERC Docket 21-787-000 (March 1, 2021).

3 December Report, Page 33 Table 11.

4 CEA previously identified sites near Franklin, Connecticut, in New London County, as examples of land where the reference unit could potentially be built. For perspective, the Tolland County area identified on the map in Exhibit A is approximately 15 miles from the sites identified near Franklin.

5 The PPR will change from $8,782 to $8,894.

consistently allowed for reasonable costs for particular categories rather than cost estimates derived from a specific, detailed scope. These assumptions are, and are intended to be, generalized assumptions for the reference Net CONE unit, not specific to a particular plant, project developer, construction contract or parcel of land.

Table 2: Review of Location Impact on Other Components of Net CONE Analysis

COSTS EVALUATED	POTENTIAL LOCATION IMPACT	IMPACT DETERMINATION AND EXPLANATION
Balance of Plant Materials	As noted in the CEA report (pg. 27), these materials were adjusted "to suit any special conditions that might apply in the New London County, Connecticut area. Concrete supply is the one item that is particularly influenced by local costs."	No cost adjustment needed. No construction material adjustments are needed due to the close proximity of the newly proposed county location which is adjacent to New London County.
Construction Labor	Construction labor rates were based on union labor rates for the New London County, Connecticut area.	No cost adjustment needed. Mott MacDonald reviewed union wage rates in ten locations throughout Connecticut in 2019. No county-specific adjustment is needed
Construction Labor	Field labor productivity was based on field construction labor conditions for the New London County, Connecticut area.	No cost adjustment needed. Mott MacDonald reviewed Union wage rates in ten locations throughout Connecticut in 2019. No county-specific adjustment is needed
Direct Costs (Major Equipment, Installation, Labor)	Labor hours were adjusted to reflect the anticipated productivity levels associated with labor in the New London County, Connecticut area.	No cost adjustment needed. As noted above, productivity rates in various locations throughout Connecticut were applied.
Site Work	Site is anticipated to require a minimal amount of additional fill.	No cost adjustment needed. The same site work assumption applies to sites in Tolland County.
EPC Costs: Concrete Masonry Structural Steel/Metals Buildings Piping/Mechanical Electrical Instrumentation	Inputs to these costs include construction labor hours, field labor hours, and labor productivity.	No cost adjustment needed. As noted in Construction Labor above, labor wages and productivity rates in various locations throughout Connecticut were applied.
Indirect EPC: Construction Management Construction Equipment and Operators Indirect Construction Services and Support	Inputs to these costs include the inclusion of labor costs.	No cost adjustment needed. No change to labor costs; costs stay the same as noted above.

COSTS EVALUATED	POTENTIAL LOCATION IMPACT	IMPACT DETERMINATION AND EXPLANATION
EPC Contractor Contingency	Evaluated as these costs are based on project EPC costs.	No cost adjustment needed. EPC costs are not dependent on county location, and therefore, this contingency would not change.
EPC Contractor Profit	Evaluated as these costs are based on total value of the project for EPC contractor.	No cost adjustment needed. EPC costs are not dependent on county location, and therefore, this contingency would not change.
Fixed O&M Costs	Evaluated as LTSA covers labor costs	No cost adjustment needed. As noted above, labor wages and productivity rates in various locations throughout Connecticut were applied
Property Taxes	Property taxes were modeled for New London County.	Cost adjustment is required. Property taxes should reflect rates of Tolland County.
Site Leasing Costs	Evaluated for potential difference in leasing costs between New London and Tolland counties.	No cost adjustment needed. Site leasing cost benchmarking is generic based on the technology type and consistent with or similar to assumptions in past CONE studies.
Insurance	Insurance is based on total capital costs.	No cost adjustment needed. Insurance rate is assumed as a percentage of capital costs and is generic, and consistent with assumptions in past CONE studies.
Change in Elevation and Average Temperature	Elevation and ambient temperature can impact turbine output.	No cost adjustment needed. The impact due to average elevation change and temperature between New London and Tolland County has a de minimis impact on the output of the machine.

Because of the change in property taxes, the gross CONE for the reference unit was updated from $11.399/kW-mo to $11.499/kW-mo (based on installed capacity). This approximately $0.10/kW-mo. change has a resulting impact on the estimated PPR, the calculation of which requires gross CONE as an input. PPR will change from $8,782 to $8,894. The offsetting effect of the PPR update is approximately $0.01/kW-mo.

N

- County Boundaries
- 345kV Transmission Line
- 345kV Transmission Line, 2-mile border
- Gas Transmission Main Pipelines
- Gas Transmission Main Pipelines, 2-mile border
- Gas Transmission Lateral Pipelines
- The Yellow cloud represents green-space locations that could be used as a potential location for a proposed facility

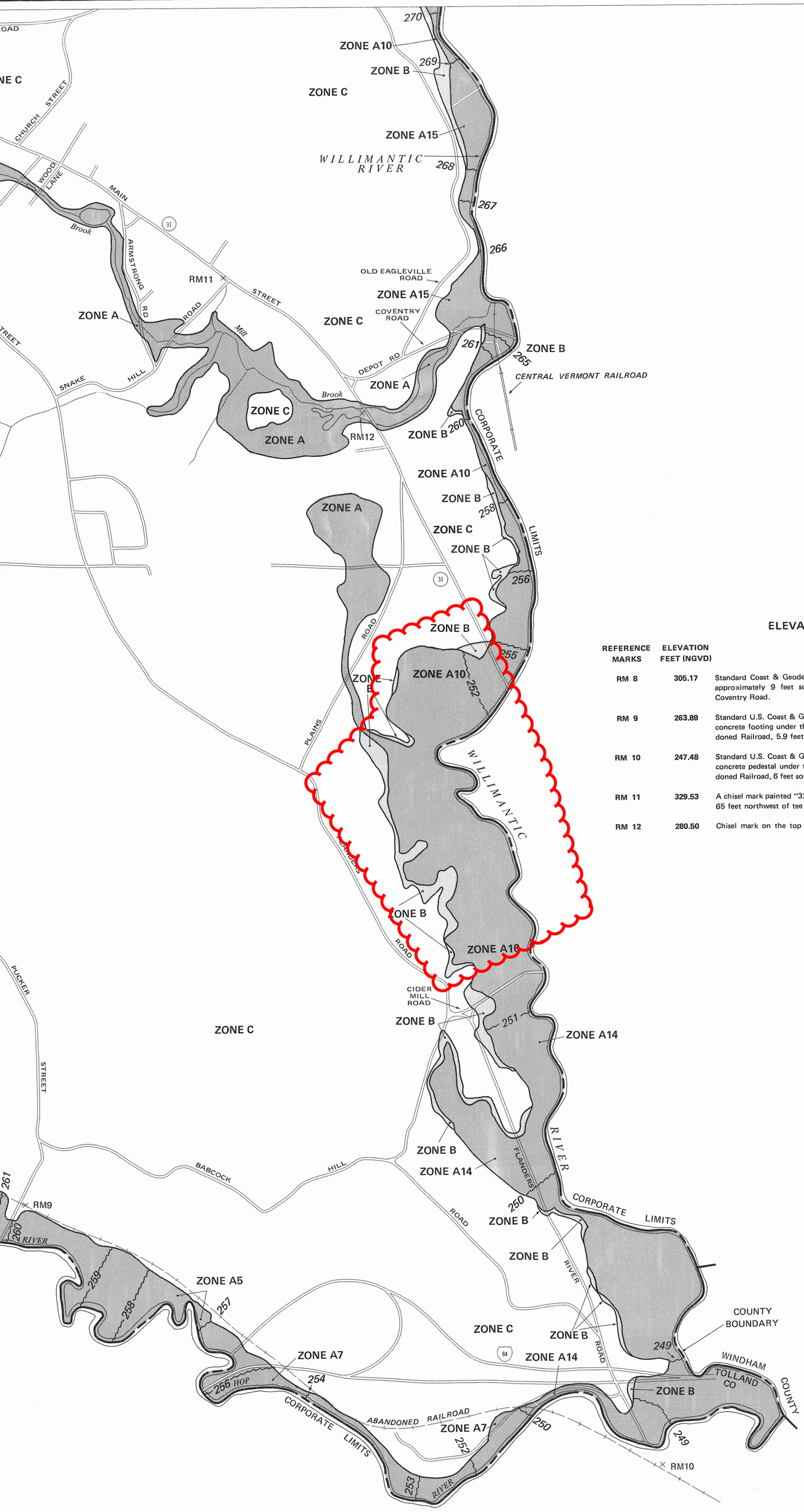
1 mile

Windham County

Tolland County

New London County

Franklin, CT



KEY TO MAP

500-Year Flood Boundary
100-Year Flood Boundary
Zone Designations* With Date of Identification e.g., 12/2/74
100-Year Flood Boundary
500-Year Flood Boundary

ZONE B
ZONE A1 DATE
ZONE A5 DATE
ZONE B

Base Flood Elevation Line With Elevation In Feet** — 513

Base Flood Elevation in Feet Where Uniform Within Zone** (EL 987)

Elevation Reference Mark RM7 ×

River Mile • M1.5

**Referenced to the National Geodetic Vertical Datum of 1929

*EXPLANATION OF ZONE DESIGNATIONS

ZONE	EXPLANATION
A	Areas of 100-year flood; base flood elevations and flood hazard factors not determined.
A0	Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; average depths of inundation are shown, but no flood hazard factors are determined.
AH	Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; base flood elevations are shown, but no flood hazard factors are determined.
A1-A30	Areas of 100-year flood; base flood elevations and flood hazard factors determined.
A99	Areas of 100-year flood to be protected by flood protection system under construction; base flood elevations and flood hazard factors not determined.
B	Areas between limits of the 100-year flood and 500-year flood; or certain areas subject to 100-year flooding with average depths less than one (1) foot or where the contributing drainage area is less than one square mile; or areas protected by levees from the base flood. (Medium shading)
C	Areas of minimal flooding. (No shading)
D	Areas of undetermined, but possible, flood hazards.
V	Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors not determined.
V1-V30	Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors determined.

ELEVATION REFERENCE MARKS

REFERENCE MARKS	ELEVATION FEET (NGVD)	DESCRIPTION OF LOCATION
RM 8	305.17	Standard Coast & Geodetic Survey disk stamped "69" set in a ledge of rock located along Abandoned Railroad, approximately 9 feet south of south rail, 2 feet higher than the track, about 2.5 rails east of crossing on Coventry Road.
RM 9	263.89	Standard U.S. Coast & Geodetic Survey disk stamped "Elev. 263887 FT R 1923" set in the northeast corner of the concrete footing under the east concrete pedestal under the south steel pier of the Pucker Street bridge over Abandoned Railroad, 5.9 feet south of the south rail, about one foot lower than the track, 5 rails west of semaphore.
RM 10	247.48	Standard U.S. Coast & Geodetic Survey disk stamped "247.480 FT S 9 1923" set vertically in the north face of the concrete pedestal under the west end of the south steel pier or bent of the Flanders River Road bridge over Abandoned Railroad, 6 feet south of the south rail, level with the track.
RM 11	329.53	A chisel mark painted "329.6 (Route 31)" on the southeast headwall of a cross culvert on Main Street located about 65 feet northwest of tee intersection with Snake Hill Road, 20 feet northwest of pole of SNETCO pole No. 1396.
RM 12	280.50	Chisel mark on the top of steel handrail at center of upstream side of State Route 31 bridge over Mill Brook.

NOTES TO USER

Certain areas not in the special flood hazard areas (zones A and V) may be protected by flood control structures.

This map is for flood insurance purposes only; it does not necessarily show all areas subject to flooding in the community or all planimetric features outside special flood hazard areas.

For adjoining map panels, see separately printed Index To Map Panels.

INITIAL IDENTIFICATION:
AUGUST 9, 1974

FLOOD HAZARD BOUNDARY MAP REVISIONS:
FEBRUARY 21, 1975
FEBRUARY 27, 1976

FLOOD INSURANCE RATE MAP EFFECTIVE:
JUNE 4, 1980

FLOOD INSURANCE RATE MAP REVISIONS:

Refer to the **FLOOD INSURANCE RATE MAP EFFECTIVE** date shown on this map to determine when actuarial rates apply to structures in the zones where elevations or depths have been established.

To determine if flood insurance is available in this community, contact your insurance agent, or call the National Flood Insurance Program, at (800) 638-6620, or (800) 424-8872.

APPROXIMATE SCALE
1000 0 1000 FEET

NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

TOWN OF
COVENTRY, CONNECTICUT
TOLLAND COUNTY

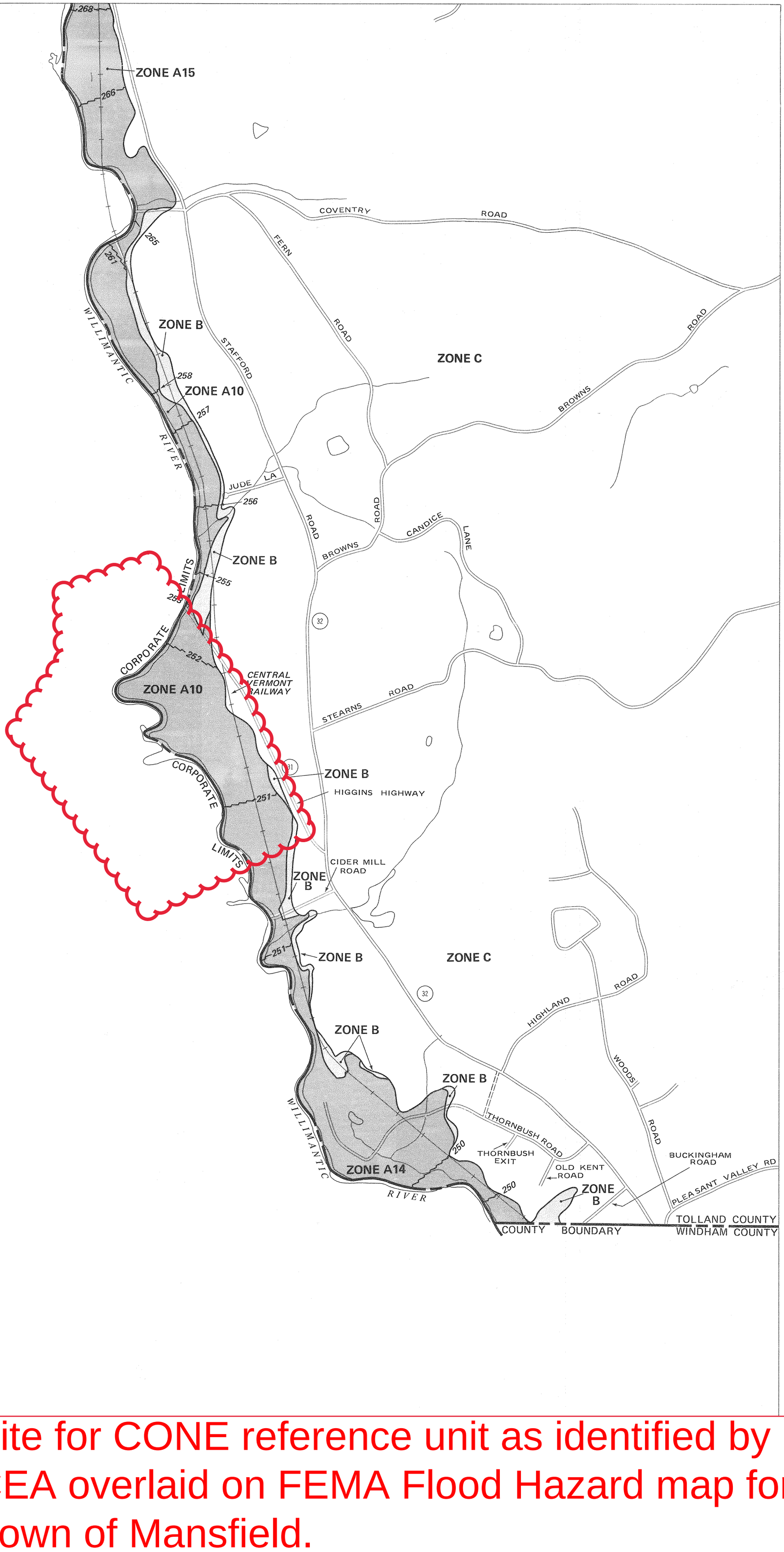
PANEL 15 OF 15

COMMUNITY-PANEL NUMBER
090110 0015 C

EFFECTIVE DATE:
JUNE 4, 1980

U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
FEDERAL INSURANCE ADMINISTRATION

Site for CONE reference unit as identified by CEA overlaid on FEMA Flood Hazard map for Town of Coventry.



KEY TO MAP

500-Year Flood Boundary

100-Year Flood Boundary

Zone Designations* With Date of Identification e.g., 12/2/74

100-Year Flood Boundary

500-Year Flood Boundary

ZONE B
ZONE A1 DATE
ZONE A5 DATE
ZONE B

Base Flood Elevation Line With Elevation In Feet** — 513

Base Flood Elevation in Feet Where Uniform Within Zone** — (EL 987)

Elevation Reference Mark — RM7 ×

River Mile — • M1.5

**Referenced to the National Geodetic Vertical Datum of 1929

*EXPLANATION OF ZONE DESIGNATIONS

ZONE	EXPLANATION
A	Areas of 100-year flood; base flood elevations and flood hazard factors not determined.
A0	Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; average depths of inundation are shown, but no flood hazard factors are determined.
AH	Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; base flood elevations are shown, but no flood hazard factors are determined.
A1-A30	Areas of 100-year flood; base flood elevations and flood hazard factors determined.
A99	Areas of 100-year flood to be protected by flood protection system under construction; base flood elevations and flood hazard factors not determined.
B	Areas between limits of the 100-year flood and 500-year flood; or certain areas subject to 100-year flooding with average depths less than one (1) foot or where the contributing drainage area is less than one square mile; or areas protected by levees from the base flood. (Medium shading)
C	Areas of minimal flooding. (No shading)
D	Areas of undetermined, but possible, flood hazards.
V	Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors not determined.
V1-V30	Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors determined.

NOTES TO USER

Certain areas not in the special flood hazard areas (zones A and V) may be protected by flood control structures.

This map is for flood insurance purposes only; it does not necessarily show all areas subject to flooding in the community or all planimetric features outside special flood hazard areas.

For adjoining map panels, see separately printed Index To Map Panels.

INITIAL IDENTIFICATION:
JANUARY 9, 1974

FLOOD HAZARD BOUNDARY MAP REVISIONS:
OCTOBER 29, 1976
JUNE 21, 1977

FLOOD INSURANCE RATE MAP EFFECTIVE:
JANUARY 2, 1981

FLOOD INSURANCE RATE MAP REVISIONS:

Refer to the FLOOD INSURANCE RATE MAP EFFECTIVE date shown on this map to determine when actuarial rates apply to structures in the zones where elevations or depths have been established.

To determine if flood insurance is available in this community, contact your insurance agent, or call the National Flood Insurance Program, at (800) 638-6620, or (800) 424-8872.

APPROXIMATE SCALE
1000 0 1000 FEET

Site for CONE reference unit as identified by CEA overlaid on FEMA Flood Hazard map for Town of Mansfield.

NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

TOWN OF
MANSFIELD,
CONNECTICUT
TOLLAND COUNTY

PANEL 15 OF 20

COMMUNITY-PANEL NUMBER
090128 0015 C

EFFECTIVE DATE:
JANUARY 2, 1981

federal emergency management agency
federal insurance administration

mainstreetmaps.com/ct/mansfield/public.asp

Apps | Timesheet | NatGasRT | FERC Advanced Sea... | Outlook Web App | Dos, Cherokee, Rive... | CF | We

Town of Mansfield, Connecticut

Web GIS Maps and Online Property Information

by MainStreetGIS, LLC Town Website

User Guide Feedback Disclaimer

Base Map: Town Base Map

GIS Map | Street View | Other Maps | GIS Links

MainStreetMaps 1 : 13542

Layers | Property | Selection

- Critical Habitat (CT DEP)
- School District
- Historic District
- Historic Village
- Opportunity Zone
- [x] Zoning Group (4/15/2020)
  - Aquifer Protecton Area
  - Water Pipeline Overlay Zone
  - Business Zone (B)
  - Design Multiple Residence Zone (DMR
  - Flood Hazard Zone (FH)
  - Institutional Zone (I)
  - Neighborhood Business 1 Zone (NB-1)
  - Neighborhood Business 2 Zone (NB-2)
  - Planned Business 1 Zone (PB-1)
  - Planned Business 2 Zone (PB-2)
  - Planned Business 3 Zone (PB-3)
  - Planned Business 4 Zone (PB-4)
  - Planned Business 5 Zone (PB-5)
  - Pleasant Valley Commercial/Agriculture
  - Pleasant Valley Residence/Agriculture
  - Professional Office 1 Zone (PO-1)
  - Research and Development Limited Inc
  - Residence 20 Zone (R-20)
  - Residence 90 Zone (R-90)
  - Rural Agricultural Residence 90 (RAR-
  - Storrs Center Special Design District (
  - South Eagleville Road Housing Opportu
- Conservation Easement Group
- Public and Protected Open Space
- Hydrant
- Utility Corridor
- Sewer Group
- Drainage Group
- Watershed (USDA 2001)
- Watershed (CT DEP)
- Aquifer Protection Area (CT DEP 2018)
- DEP Property (CT DEP 2010)
- Railroad (CT DEP 2010)
- Elevation Contours 2ft (CT DEP LIDAR)
- Temporary Lot Line
- Parcels (Yellow)
- [x] Parcels (10/1/2020)
- Easement
- Building-UConn/Commerc (Town)
- Town Wetlands 2019
- Inland Wetland Soils (USDA 2009)

Coventry Road Fern Road Jude Lane Brown's Road RT 32 Stafford Road RT 31 Higgins Hwy Woodmont Drive Cider Mill Road

RAR-90 FH PB-5

Site for CONE reference unit as identified by CEA overlaid on Town of Mansfield Zoning Map.

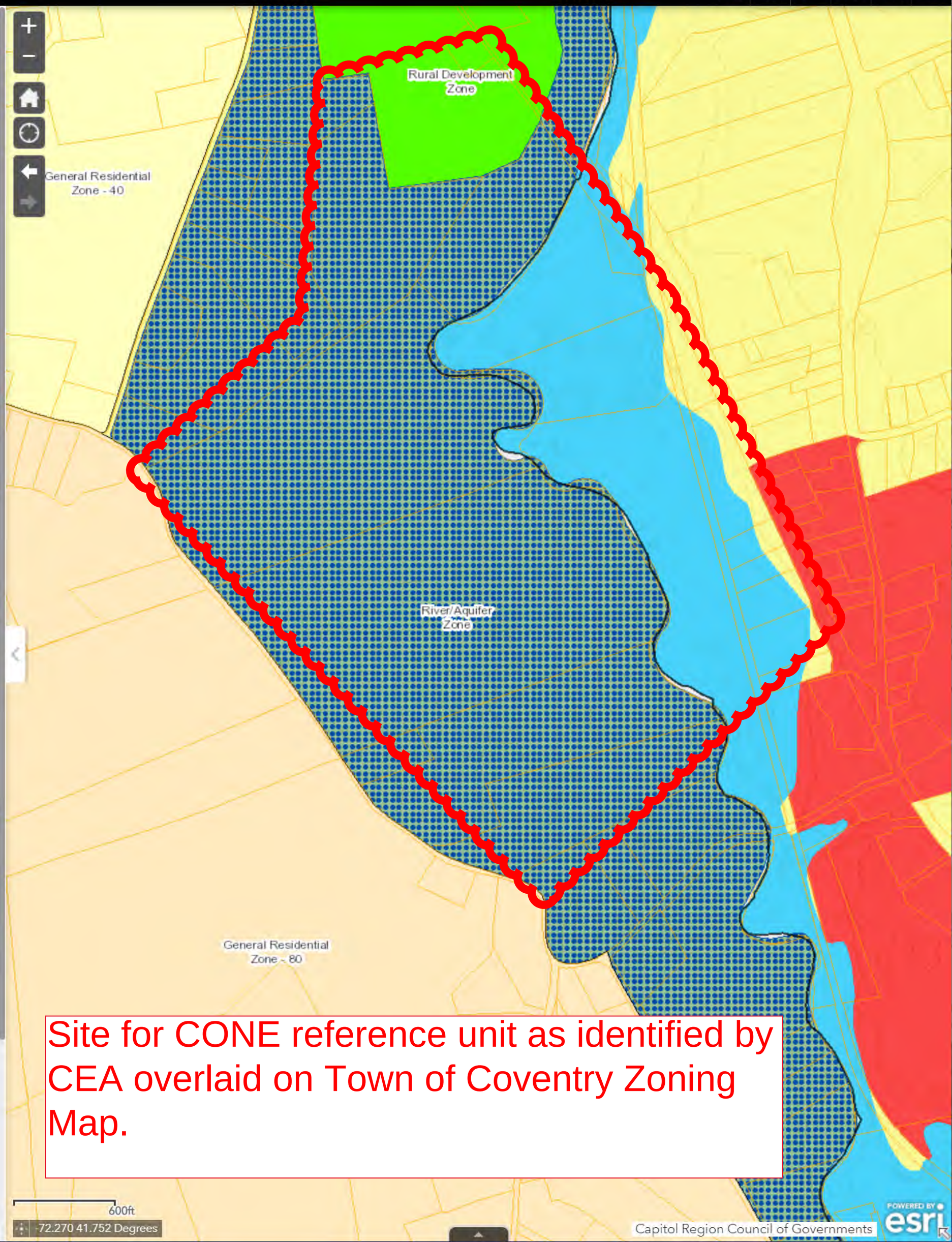
200 m
1000 ft

crcog.maps.arcgis.com/apps/webappviewer/index.html?id=ed798533e6fd4304b2bef1f28e95c06f

Apps | Timesheet | NatGasRT | FERC Advanced Sea... | Outlook Web App | Dos, Cherokee, Rive... | Welcome to CrossFit | Webex | Races | Other bookmarks | Reading list

CRCOG Tax Parcel Viewer

- Tax Parcels
  - Parcel Polygons
- Quick Maps
  - Municipal Data
    - Coventry
      - Street Address
      - Sewer Mains
      - Coventry Open Space 2020
      - Coventry Zoning 2020
        - Aquifer Protection Area - Level A
        - Commercial Zone
        - Commercial/Agricultural Zone
        - General Residential Zone - 40
        - General Residential Zone - 80
        - Industrial Heritage Overlay District
        - Lake Residential Zone
        - Neighborhood Commercial Zone
        - Professional Office Zone
        - River/Aquifer Zone
        - Rural Development Zone
        - Village Center District
        - Village Gateway District
        - Village Residence District
    - Columbia
  - Regional Bike Trails
  - Regional Land Use
  - Census
  - Farmland Soils
  - Inland Wetland Soils
  - Regional Zoning
    - Business/Commercial/Office
    - Industrial
    - Mixed Use
    - Residential
    - Resource/Recreation/Public Use
    - Waterbodies and/or Major Rivers



M E M O R A N D U M

TO: NEPOOL Participants Committee Members and Alternates

FROM: Sebastian Lombardi and Rosendo Garza, NEPOOL Counsel

DATE: March 22, 2021

RE: Update: Offer Review Trigger Price (ORTP) Values for FCA16

This memorandum provides an update on the Markets Committee's further consideration of proposed revisions to the Offer Review Trigger Price (ORTP) provisions that you will be asked to consider supporting at Wednesday's Participants Committee meeting.

At its meeting on Friday (March 19), the Markets Committee considered the ISO's further modified ORTP proposal as well as amendments to the February 24 Markets Committee-recommended ORTP Proposal.[1] At this meeting, as described further herein, the Markets Committee ultimately voted to recommend Participants Committee support for a slightly modified Feb. 24 MC-recommended ORTP Proposal (now the "March 19 MC-recommended ORTP Proposal").

A copy of the set of Tariff revisions reflecting the March 19 MC-recommended ORTP Proposal is included with this memorandum as Attachment A.

MARKETS COMMITTEE CONSIDERATION

At its March 19, 2021 meeting, the Markets Committee voted to recommend that the Participants Committee approve two changes (discussed below) to the Feb. 24 MC-recommended ORTP Proposal:

1. ***Union of Concerned Scientists (UCS) (on behalf of RENEW Northeast) Amendment: Updating the Feb. 24 MC-recommended ORTP Proposal***[2]

The first amendment offered at the Markets Committee proposed to revise the Energy Storage Device – Lithium Ion Battery ORTP from $2.612/kW-month to $2.601/kW-month. This reduction was the result of accounting for the change to the ISO's proposed Performance Payment Rate (PPR) value for FCA 16.[3] The UCS-sponsored motion to amend the Feb. 24 MC-

[1] Background information on the "Feb. 24 MC-recommended ORTP Proposal" was circulated in advance of the March 4 Participants Committee and then again with the March 17 package of materials for the March 24 meeting. All such materials are included in the composite set of materials for this meeting.

[2] To review UCS's presentation materials for the March 19 Markets Committee meeting, please click here.

[3] In addition, this amendment carried over the impact of the change to the PPR value to the other ORTP values for all technology types and are reflected in the table provided. Note, the ISO's proposed change to the PPR, among other things, is being considered separately at this meeting. *See* Agenda Item #1.

recommended modified ORTP proposal passed at the Markets Committee with a 71.41% Vote in favor.[4]

2. *Advanced Energy Economy, Borrego Solar Systems, Enel X, ENGIE North America (on behalf of themselves and RENEW Northeast) Amendment to Further Amend the ORTP Calculation for Combined Resources for FCA 16*[5]

The second amendment considered by the Markets Committee at its March 19 meeting proposed to revise previously supported Tariff revisions by including additional clarifying edits. Specifically, the amendment added defined terms in place of undefined ones in the weighted average ORTP Tariff provisions. This second amendment passed with a Markets Committee Vote of 80.57% Vote in favor.[6]

After voting to support the two amendments, the Markets Committee, with a 70.02% Vote in favor, voted to recommend that the Participants Committee support a modified package of ORTP provisions.[7] Accordingly, at Wednesday's meeting, the Participants Committee will be asked to consider approving the March 19 MC-recommended ORTP Proposal, which in doing so would supersede the prior NEPOOL-approved December 3 ORTP proposal.

At the ISO's request, the Markets Committee also considered but failed to support the ISO's latest modified ORTP proposal, with an 18.76% Vote in favor.[8]

For the sake of convenience, the following table provides the March 19 Markets Committee-recommended ORTPs, as well as the ISO's updated ORTPs.

---

[4] *See* Memorandum from Jay Dwyer, Acting Secretary, NEPOOL Markets Committee to NEPOOL Participants Committee, subject: Actions of the MC, at 2 (Mar. 19, 2021), https://www.iso-ne.com/static-assets/documents/2021/03/a00_mc_2021_03_19_actions.pdf (MC NoA).

[5] The presentation fully describing the joint amendment can be accessed here.

[6] MC NoA at 3.

[7] *Id.* The individual Sector votes at the Markets Committee were as follows: *Generation* – 3.34% in favor, 13.35% opposed, 0 abstentions; *Transmission* – 16.68% in favor, 0% opposed, 0 abstentions; *Supplier* – 4.17% in favor, 12.51% opposed, 6 abstentions; *Publicly Owned Entity* – 16.68% in favor, 0% opposed, 0 abstentions; *Alternative Resources* – 12.38% in favor, 4.13% opposed, 0 abstentions; and *End User* – 16.68% in favor, 0% opposed, 0 abstentions. In addition, the votes from Provisional Members were 0.09% in favor, 0% opposed, 0 abstentions.

[8] MC NoA at 3. The individual Sector votes at the Markets Committee were as follows: *Generation* – 7.16% in favor, 9.54% opposed, 2 abstentions; *Transmission* – 0% in favor, 16.7% opposed, 3 abstentions; *Supplier* – 9.54% in favor, 7.16% opposed, 8 abstentions; *Publicly Owned Entity* – 0% in favor, 16.7% opposed, 0 abstentions; *Alternative Resources* – 2.06% in favor, 14.44% opposed, 0 abstentions; and *End User* – 0% in favor, 16.7% opposed, 0 abstentions.

Revised ORTPs Since the December 3 NPC Vote		
Generating Capacity Resources		
Technology Type	**ISO-NE's ORTPs ($/kW-month)**	**March 19 Markets Committee-Supported ORTPs ($/kW-month)**
Simple Cycle Combustion Turbine	$5.355	$5.355
Combined Cycle Gas Turbine	$9.811	$9.811
On-Shore Wind	$0.000	$0.000
Off-Shore Wind	N/A	$0.000
Energy Storage Device – Lithium Ion Battery	$2.912	$2.601
Photovoltaic Solar	$1.381	$0.000
Demand Capacity Resources		
Technology Type	**ISO-NE's ORTPs ($/kW-month)**	**Markets Committee-Supported ORTPs ($/kW-month)**
Load Management (Commercial / Industrial)	$0.750	
Previously Installed Distributed Generation	$0.750	
New Distributed Generation	Based on generation technology type	
On-Peak Solar	$5.414	
Energy Efficiency	$0.000	

The following form of resolution may be used to initiate Participants Committee consideration at the March 24 meeting:

> RESOLVED, that the Participants Committee supports amending its previously-approved Offer Review Trigger Prices and related Tariff revisions, as recommended by the Markets Committee at its March 19, 2021 meeting and as circulated to this Committee in advance of this meeting, together with those further changes agreed to by the Participants Committee at this meeting and such non-substantive changes as may be approved by the Chair and Vice-Chair of the Markets Committee.

We offer Figure 1 below to provide additional clarity to the Committee's members and alternatives on the contemplated voting process/scenarios for the March 24 meeting.

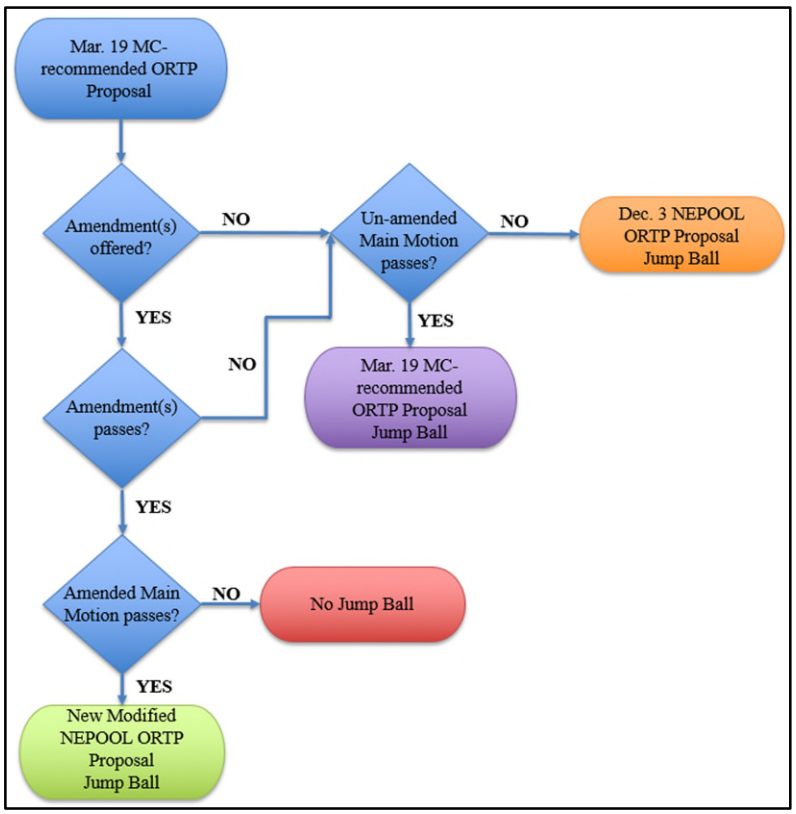


Figure 1: March 24 NPC Voting Process

You will also be asked to consider the ISO's modified set of ORTPs and related Tariff revisions in a separate vote.

March 19 Markets Committee-recommended Modified ORTP Proposal

- **NEPOOL-supported Tariff revisions to the ISO's ORTP proposal, as approved by the NEPOOL Participants Committee at its December 3, 2020 meeting, are highlighted in green.**
- **Markets Committee-recommended changes to the NEPOOL-supported Tariff revisions, as supported at the February 24, 2021 Markets Committee meeting, are highlighted in yellow.**
- **Markets Committee-recommended changes to the NEPOOL-supported Tariff revisions, as supported at the March 19, 2021 Markets Committee meeting, are highlighted in blue.**
- **NOTE: Any remaining redlines that are not highlighted are those the ISO proposed and were approved by the Participants Committee at its December 3, 2020 meeting.**

I.2 Rules of Construction; Definitions

***

I.2.2. Definitions:

In this Tariff, the terms listed in this section shall be defined as described below:

***

New Capacity Resource Economic Life is the number of years that is the lesser of (a) the period of time that a New Capacity Resource of a given technology type or types would reasonably be expected to operate before the resource becomes unprofitable for at least two consecutive years, (b) the expected physical operating life of the resource, or (c) 35 years.

***

Offer Review Trigger Prices are the prices specified in Section III.A.21.1 of Market Rule 1 associated with the submission of New Capacity Offers in the Forward Capacity Auction.

***

III.13. Forward Capacity Market.

***

III.13.2. Annual Forward Capacity Auction.

***

III.13.2.3.2. Step 2: Compilation of Offers and Bids.

The auctioneer shall compile all of the offers and bids for that round, as follows:

(a) **Offers from New Generating Capacity Resources, New Import Capacity Resources, and New Demand Capacity Resources.**

***

(v) Capacity associated with a New Import Capacity Resource (other than a New Import Capacity Resource that is backed by a single new External Resource and that is associated with an investment in transmission that increases New England's import capability or a New Import Capacity Resource that is associated with an Elective Transmission Upgrade) shall be automatically included in the aggregate supply curves as described in Section III.13.2.3.3 at prices at or above the resource's offer prices (as they may be modified pursuant to Section III.A.21.2) and shall be automatically removed from the aggregate supply curves at prices below the resource's offer prices (as they may be modified pursuant to Section III.A.21.2), except under the following circumstances:

In any round of the Forward Capacity Auction in which prices are below the Dynamic De-List Bid Threshold, the Project Sponsor for a New Import Capacity Resource (other than a New Import Capacity Resource that is backed by a single new External Resource and that is associated with an investment in transmission that increases New England's import capability or a New Import Capacity Resource that is associated with an Elective Transmission Upgrade) with offer prices (as they may be modified pursuant to Section III.A.21.2) that are less than the Dynamic De-L~~l~~ist Bid Threshold may submit a New Capacity Offer indicating the quantity of capacity that the Project Sponsor would commit to provide from the resource during the Capacity Commitment

Period at that round's prices. Such an offer shall be defined by the submission of one to five prices, each less than the Dynamic De-List Bid Threshold (or the Start-of-Round Price, if lower than the Dynamic De-List Bid Threshold) but greater than or equal to the End-of-Round Price, and a single quantity associated with each price. Such an offer shall be expressed in the same form as specified in Section III.13.2.3.2(a)(i) and shall imply a curve indicating quantities at all of that round's relevant prices, pursuant to the convention of Section III.13.2.3.2(a)(iii). The curve may not increase the quantity offered as the price decreases.

***

III.13.2.4. Forward Capacity Auction Starting Price and the Cost of New Entry.

***

Between recalculations, CONE and Net CONE will be adjusted for each Forward Capacity Auction pursuant to Section III.A.21.1.2(e) (except that the bonus tax depreciation adjustment described in Section III.A.21.1.2(e)(5) shall not apply). Prior to applying the annual adjustment for the Capacity Commitment Period beginning on June 1, 2019, Net CONE will be reduced by $0.43/kW-month to reflect the elimination of the PER adjustment. The adjusted CONE and Net CONE values will be published on the ISO's web site.

***

SECTION III

MARKET RULE 1

APPENDIX A

MARKET MONITORING, REPORTING AND MARKET POWER MITIGATION

***

MARKET MONITORING, REPORTING AND MARKET POWER MITIGATION

***

III.A.21.1.1. Offer Review Trigger Prices for the Forward Capacity Auction.

For resources other than New Import Capacity Resources, the Offer Review Trigger Prices for the ~~twelfth Forward Capacity Auction (for the~~ Capacity Commitment Period beginning on June 1, 2025~~2021)~~ shall be as follows:

Generating Capacity Resources	
Technology Type	**Offer Review Trigger Price ($/kW-month)**
Simple Cycle ~~c~~Combustion ~~t~~Turbine	$5.355~~5.366~~6.503
~~c~~Combined ~~c~~Cycle ~~g~~Gas ~~t~~Turbine	$9.811~~9.819~~7.856
~~o~~On-~~s~~Shore ~~w~~Wind	$0.000~~11.025~~
Off-Shore Wind	$0.000
Energy Storage Device – Lithium Ion Battery	$2.601~~2.612~~2.923
Photovoltaic Solar	$0.000~~1.861~~

Demand Capacity Resources ~~– Commercial and Industrial~~	
Technology Type	**Offer Review Trigger Price ($/kW-month)**
Load Management (Commercial / Industrial)~~and/or previously installed Distributed Generation~~	$0.750~~0.761~~1.008
Previously Installed Distributed Generation	$0.750~~0.761~~
~~n~~New Distributed Generation	~~b~~Based on generation technology type
On-Peak Solar	$5.414~~5.425~~
~~Combined Photovoltaic Solar and Energy Storage Device – Lithium Ion Battery~~	~~$7.376~~
Energy Efficiency	$0.000

~~Demand Capacity Resources – Residential~~	
~~Technology Type~~	~~Offer Review Trigger Price ($/kW-month)~~
~~Load Management~~	~~$7.559~~
~~previously installed Distributed Generation~~	~~$1.008~~
~~new Distributed Generation~~	~~based on generation technology type~~
~~Energy Efficiency~~	~~$0.000~~

Other Resources	
All other technology types	Forward Capacity Auction Starting Price

Where one or more ~~a~~Assets sharing a point of interconnection register as a New Capacity Resource that does not include all of the ~~a~~Assets sharing the point of interconnection, the Offer Review Trigger Price for the New Capacity Resource will be assigned according only to the Aa~~a~~sset or Aa~~a~~ssets ~~comprising~~contributing to the FCA Qualified Capacity of the New Capacity Resource.

Where a ~~n~~New Capacity ~~r~~Resource is composed of ~~a~~Assets having different technology types (including, but not limited to, a photovoltaic solar generator sharing a point of interconnection with an energy storage device participating in the energy market as one or more ~~a~~Assets and participating in the capacity market as a single New Capacity Resources), the New Capacity ~~r~~Resource's Offer Review Trigger Price will be calculated in accordance with the weighted average formula in Section III.A.21.2(c).

For purposes of determining the Offer Review Trigger Price of a Demand Capacity Resource composed in whole or in part of Distributed Generation, the Distributed Generation is considered new, rather than previously installed, if (1) the Project Sponsor for the New Demand Capacity Resource has participated materially in the development, installation or funding of the Distributed Generation during the five years prior to commencement of the Capacity Commitment Period for which the resource is being qualified for participation, and (2) the Distributed Generation has not been assigned to a Demand Capacity Resource with a Capacity Supply Obligation in a prior Capacity Commitment Period.

For a New Import Capacity Resource that is backed by a single new External Resource and that is associated with an investment in transmission that increases New England's import capability, the Offer Review Trigger Prices in the table above shall apply, based on the technology type of the External Resource; provided that, if a New Import Capacity Resource is associated with an Elective Transmission Upgrade, it shall have an Offer Review Trigger Price of the Forward Capacity Auction Starting Price plus $0.01/kW-month.

For any other New Import Capacity Resource, the Offer Review Trigger Price shall be the Forward Capacity Auction Starting Price plus $0.01/kW-month.

III.A.21.1.2. Calculation of Offer Review Trigger Prices.

(a) The Offer Review Trigger Price for each of the technology types listed above shall be recalculated using updated data for the Capacity Commitment Period beginning on June 1, 2025 and no less often than once every three years thereafter. Where any Offer Review Trigger Price is recalculated, the Internal Market Monitor will review the results of the recalculation with stakeholders and the new Offer Review Trigger Price shall be filed with the Commission prior to the Forward Capacity Auction in which the Offer Review Trigger Price is to apply.

(b) For New Generating Capacity Resources, the methodology used to recalculate the Offer Review Trigger Price pursuant to subsection (a) above is as follows. Capital costs, expected non-capacity revenues and operating costs, assumptions regarding depreciation, taxes and discount rate are input into a capital budgeting model which is used to calculate the break-even contribution required from the Forward Capacity Market to yield a discounted cash flow with a net present value of zero for the project. The Offer Review Trigger Price is set equal to the year-one capacity price output from the model. The model looks at ~~20 years of~~ real-dollar cash flows discounted at a rate (Weighted Average Cost of Capital) consistent with that expected of a project whose output is under contract (i.e., a contract negotiated at arm's length between two unrelated parties)~~.~~ over the New Capacity Resource Economic Life of the project.

(c) For New Demand Capacity Resources comprised of Energy Efficiency, the methodology used to recalculate the Offer Review Trigger Price pursuant to subsection (a) above shall be the same as that used for New Generating Capacity Resources, with the following exceptions. First, the model takes account of all costs incurred by the utility and end-use customer to deploy the efficiency measure. Second, rather than energy revenues, the model recognizes end-use customer savings associated with the efficiency programs. Third, the model assumes that all costs are expensed as incurred. Fourth, the benefits realized by end-use customers are assumed to have no tax implications for the utility. Fifth, the model discounts cash flows over the Measure Life of the energy efficiency measure.

(d) For New Demand Capacity Resources other than Demand Capacity Resources comprised of Energy Efficiency, the methodology used to recalculate the Offer Review Trigger Price pursuant to subsection (a) above is the same as that used for New Generating Capacity Resources, except that the model discounts cash flows over the contract life. For Demand Capacity Resources (other than those comprised of Energy Efficiency) that are composed primarily of large commercial or industrial customers that use pre-existing equipment or strategies, incremental costs include new equipment costs and annual operating costs such as customer incentives and sales representative commissions. For Demand Capacity Resources (other than Demand Capacity Resources comprised of Energy Efficiency) primarily composed of residential or small commercial customers that do not use pre-existing equipment or strategies, incremental costs include equipment costs, customer incentives, marketing, sales, and recruitment costs, operations and maintenance costs, and software and network infrastructure costs.

(e) For years in which no full recalculation is performed pursuant to subsection (a) above, the Offer Review Trigger Prices will be adjusted as follows:

(1) For the simple cycle combustion turbine and combined cycle gas turbine technology types, ~~E~~each line item associated with capital costs that is included in the capital budgeting model will be updated to reflect changes in the Bureau of Labor Statistics Producer Price Index for Machinery and Equipment: General Purpose Machinery and Equipment (WPU114). For all other Generating Capacity Resource technology types, each line item associated with capital costs that is included in the capital budgeting model will be updated to reflect changes in the levelized cost of energy for that technology as published by Bloomberg.~~associated with the indices included in the table below:~~

~~**Cost Component**~~	~~**Index**~~
~~gas turbines~~	~~BLS PPI "Turbines and Turbine Generator Sets"~~
~~steam turbines~~	~~BLS PPI "Turbines and Turbine Generator Sets"~~
~~wind turbines~~	~~Bloomberg Wind Turbine Price Index~~

~~Other Equipment~~	~~BLS-PPI "General Purpose Machinery and Equipment"~~
~~construction labor~~	~~BLS "Quarterly Census of Employment and Wages" 2371 Utility System Construction Average Annual Pay:~~ ~~– Combustion turbine and combined cycle gas turbine costs to be indexed to values corresponding to the location of Hampden County, Massachusetts~~ ~~– On-shore wind costs to be indexed to values corresponding to the location of Cumberland County, Maine~~
~~other labor~~	~~BLS "Quarterly Census of Employment and Wages" 2211 Power Generation and Supply Average Annual Pay:~~ ~~– Combustion turbine and combined cycle gas turbine costs to be indexed to values corresponding to the location of Hampden County, Massachusetts~~ ~~– On-shore wind costs to be indexed to values corresponding to the location of Cumberland County, Maine~~
~~materials~~	~~BLS-PPI "Materials and Components for Construction"~~
~~electric interconnection~~	~~BLS - PPI "Electric Power Transmission, Control, and Distribution"~~
~~gas interconnection~~	~~BLS - PPI "Natural Gas Distribution: Delivered to ultimate consumers for the account of others (transportation only)"~~
~~fuel inventories~~	~~Federal Reserve Bank of St. Louis "Gross Domestic Product: Implicit Price Deflator (GDPDEF)"~~

~~(2) Each line item associated with fixed operating and maintenance costs that is included in the capital budgeting model will be associated with the indices included in the table below:~~

~~**Cost Component**~~	~~**Index**~~
~~labor, administrative and general~~	~~BLS "Quarterly Census of Employment and Wages" 2211 Power Generation and Supply Average Annual Pay:~~ ~~– Combustion turbine and combined cycle gas turbine costs to be indexed to values corresponding to the location of Hampden County, Massachusetts~~ ~~– On-shore wind costs to be indexed to values corresponding to the location of Cumberland County, Maine~~
~~materials and contract services~~	~~BLS-PPI "Materials and Components for Construction"~~

~~site leasing costs~~	~~Federal Reserve Bank of St. Louis "Gross Domestic Product: Implicit Price Deflator (GDPDEF)"~~

(2~~3~~) For each line item in (1) ~~and (2)~~ above, the ISO shall calculate a multiplier that is equal to the average of values published during the most recent 12 month period available at the time of making the adjustment divided by the average of the most recent 12 month period available at the time of establishing the Offer Review Trigger Prices ~~for the FCA~~ reflected in the table in Section III.A.21.1.1 ~~above~~. The value of each line item associated with capital costs ~~and fixed operating and maintenance costs included~~ in the capital budgeting model for the FCA reflected in the table in Section A.21.1.1 ~~above~~ will be adjusted by the relevant multiplier.

(3~~4~~) The energy and ancillary services offset values for gas~~each~~ technology type~~s~~ in the capital budgeting model shall be adjusted by inputting to the capital budgeting model the ~~most recent~~ Henry Hub natural gas futures prices, the Algonquin Citygates Basis natural gas futures prices and the Massachusetts Hub Day-Ahead Peak ~~On-Peak~~ electricity prices, as published by ICE for the first five trading days in February, for each~~the~~ month~~s in the Capacity Commitment Period beginning June 1~~ of the Capacity Commitment Period to which the updated value will apply~~, 2021, as published by ICE~~.

The energy and ancillary services offset values for non-gas technology types in the capital budgeting model shall be adjusted by inputting to the capital budgeting model the Massachusetts Hub Day-Ahead Peak electricity prices, as published by ICE for the first five trading days in February, for each month of the Capacity Commitment Period to which the updated value will apply.

(4~~5~~) Renewable energy credit values in the capital budgeting model shall be updated based on the first~~most recent~~ MA Class 1 REC price~~s~~ published in February for the five vintage~~s~~ closest to the first year of the Capacity Commitment Period associated with the relevant FCA as published by SNL Financial.

(5) The bonus tax depreciation adjustment included in the financial model for the Offer Review Trigger Prices (which is 40 percent for the Capacity Commitment Period beginning on June 1, 2025), shall be 20

percent for the Capacity Commitment Period beginning on June 1, 2026, and zero for the Capacity Commitment Period beginning on June 1, 2027 and thereafter.

(6) The Investment Tax Credit input into the capital budgeting model for the Photovoltaic Solar Generating Capacity Resource shall be 26 percent for the Capacity Commitment Period beginning on June 1, 2026, 22 percent for the Capacity Commitment Period beginning on June 1, 2027, and 10 percent thereafter.

The Production Tax Credit and Investment Tax Credit inputs into the capital budgeting model, including the aforementioned input, will be updated to reflect the most current tax law at the time of the update.

(7)~~(6)~~ The capital budgeting model and the Offer Review Trigger Prices adjusted pursuant to this subsection (e) will be published on the ISO's web site.

(8)~~(7)~~ If any of the values required for the calculations described in this subsection (e) are unavailable, then comparable values, prices or sources shall be used.

III.A.21.2. New Resource Offer Floor Prices and Offer Prices.

For every new resource participating in a Forward Capacity Auction, the Internal Market Monitor shall determine a New Resource Offer Floor Price or offer prices, as described in this Section III.A.21.2.

(a) For a Lead Market Participant with a New Capacity Resource that does not submit a request to submit offers in the Forward Capacity Auction at prices that are below the relevant Offer Review Trigger Price as described in Sections III.13.1.1.2.2.3, III.13.1.3.5 or III.13.1.4.1.1.2.8, the New Resource Offer Floor Price shall be calculated as follows:

For a New Import Capacity Resource (other than a New Import Capacity Resource that is (i) backed by a single new External Resource and that is associated with an investment in transmission that increases New England's import capability or (ii) associated with an Elective Transmission Upgrade) the New Resource Offer Floor Price shall be $0.00/kW-month.

For a New Generating Capacity Resource, New Import Capacity Resource that is backed by a single new External Resource and that is associated with an investment in transmission that increases New England's import capability, New Import Capacity Resource that is associated with an Elective Transmission Upgrade, and New Demand Capacity Resource, the New Resource Offer Floor Price shall be equal to the applicable Offer Review Trigger Price.

A resource having a New Resource Offer Floor Price higher than the Forward Capacity Auction Starting Price shall not be included in the Forward Capacity Auction.

(b) For a Lead Market Participant with a New Capacity Resource that does submit a request to submit offers in the Forward Capacity Auction at prices that are below the relevant Offer Review Trigger Price as described in Sections III.13.1.1.2.2.3, III.13.1.3.5 and III.13.1.4.1.1.2.8, the resource's New Resource Offer Floor Price and offer prices in the case of a New Import Capacity Resource (other than a New Import Capacity Resource that is backed by a single new External Resource and that is associated with an investment in transmission that increases New England's import capability or a New Import Capacity Resource that is associated with an Elective Transmission Upgrade) shall be calculated as follows:

For a New Import Capacity Resource that is subject to the pivotal supplier test in Section III.A.23 and is found not to be associated with a pivotal supplier as determined pursuant to Section III.A.23, the resource's New Resource Offer Floor Price and offer prices shall be equal to the lower of (i) the requested offer price submitted to the ISO as described in Sections III.13.1.1.2.2.3 and III.13.1.3.5; or (ii) the price revised pursuant to Section III.13.1.3.5.7.

For any other New Capacity Resource, the Internal Market Monitor shall enter all relevant resource costs and non-capacity revenue data, as well as assumptions regarding depreciation, taxes, New Capacity Resource Economic Life, and discount rate into the capital budgeting model used to develop the relevant Offer Review Trigger Price and shall calculate the break-even contribution required from the Forward Capacity Market to yield a discounted cash flow with a net present value of zero for the project. For a new Capacity Resource with an expected New Capacity Resource Economic Life greater than the New Capacity Resource Economic Life used in Section III.A.21.1.2(b) to calculate the Offer Review Trigger Price for the corresponding technology type, the Project Sponsor shall provide sufficient documentation as described in Section III.A.21.2(b)(iv) to justify its expected New Capacity Resource Economic Life. The Internal Market Monitor shall consider the documentation provided. The Internal Market Monitor shall compare the requested offer price to this capacity price estimate and the resource's New Resource Offer Floor Price and offer prices shall be determined as follows:

(i) The Internal Market Monitor will exclude any out-of-market revenue sources from the cash flows used to evaluate the requested offer price. Out-of-market revenues are any revenues that are: (a) not tradable throughout the New England Control Area or that are restricted to resources within a particular state or other geographic sub-region; or (b) not available to all resources of the same physical type within the New England Control Area, regardless of the resource owner. Expected revenues associated with economic development incentives that are offered broadly by state or local government and that are not expressly intended to reduce prices in the Forward Capacity Market are not considered out-of-market revenues for this purpose. In submitting its requested offer price, the Project Sponsor shall indicate whether and which project cash flows are supported by a regulated rate, charge, or other regulated cost recovery mechanism. If the project is supported by a regulated rate, charge, or other regulated cost recovery mechanism, then that rate will be replaced with the Internal Market Monitor estimate of energy revenues. Where possible, the Internal Market Monitor will use like-unit historical production, revenue, and fuel cost data. Where such information is not available (e.g., there is no resource of that type in service), the Internal Market Monitor will use a forecast provided by a credible third party source. The Internal Market Monitor will review capital costs, discount rates, depreciation and tax treatment to ensure that it is consistent with overall market conditions. Any assumptions that are clearly inconsistent with prevailing market conditions will be adjusted.

(ii) For a New Demand Capacity Resource, the resource's costs shall include all expenses, including incentive payments, equipment costs, marketing and selling and administrative and general costs incurred to acquire and/or develop the Demand Capacity Resource. Revenues shall include all non-capacity payments expected from the ISO-administered markets made for services delivered from the associated Demand Response Resource, and expected costs avoided by the associated end-use customer as a direct result of the installation or implementation of the associated Asset(s).

(iii) For a New Capacity Resource that has achieved commercial operation prior to the New Capacity Qualification Deadline for the Forward Capacity Auction in which it seeks to participate, the relevant capital costs to be entered into the capital budgeting model will be the undepreciated original capital costs adjusted for inflation. For any such resource, the prevailing market conditions will be those that were in place at the time of the decision to construct the resource.

(iv) Sufficient documentation and information must be included in the resource's qualification package to allow the Internal Market Monitor to make the determinations described in this subsection (b). Such documentation should include all relevant financial estimates and cost projections for the project, including the project's pro-forma financing support data. For a New Import Capacity Resource, such documentation should also include the expected costs of purchasing power outside the New England Control Area (including transaction costs and supported by forward power price index values or a power price forecast for the applicable Capacity Commitment Period), expected transmission costs outside the New England Control Area, and expected transmission costs associated with importing to the New England Control Area, and may also include reasonable opportunity costs and risk adjustments. For a new capacity resource that has achieved commercial operation prior to the New Capacity Qualification Deadline, such documentation should also include all relevant financial data of actual incurred capital costs, actual operating costs, and actual revenues since the date of commercial operation. For a New Capacity Resource that has an expected New Capacity Resource Economic Life greater than the New Capacity Resource Economic Life used to calculate the Offer Review Trigger Price for the relevant technology type in Section III.A.21.1.2(b), the Project Sponsor shall

provide evidence to support the expected New Capacity Resource Economic Life, including but not limited to, the asset life term for such resource as utilized in the Project Sponsor's financial accounting (e.g., independently audited financial statements); or project financing documents for the resource or evidence of actual costs or financing assumptions of recent comparable projects to the extent the Project Sponsor has not executed project financing for the resource (e.g., independent project engineer opinion or manufacturer's performance guarantee); or opinions of third-party experts regarding the reasonableness of the financing assumptions used for the project itself or in comparable projects. The Project Sponsor may also rely on evidence presented in federal filings, such as its FERC Form No. 1 or an SEC Form 10-K, to demonstrate an expected New Capacity Resource Economic Life other than the New Capacity Resource Economic Life of similar projects. If there are multiple technology types in the New Capacity Resource, the New Capacity Resource Economic Life should reflect the weighted average of the New Capacity Resource Economic Life of each of the technology types. For a New Capacity Resource that is receiving an out-of-market revenue source and that is seeking a different Weighted Average Cost of Capital than the Net CONE reference unit, the Project Sponsor must submit documentation to demonstrate that the requested Weighted Average Cost of Capital is consistent with that of a resource not receiving out-of-market revenues. This documentation could include but not be limited to publicly available information sources or private information relevant to projects in North America that are not receiving out-of-market revenues. If the supporting documentation and information required by this subsection (b) is deficient, the Internal Market Monitor, at its sole discretion, may consult with the Project Sponsor to gather further information as necessary to complete its analysis. If after consultation, the Project Sponsor does not provide sufficient documentation and information for the Internal Market Monitor to complete its analysis, then the resource's New Resource Offer Floor Price shall be equal to the Offer Review Trigger Price.

(v) If the Internal Market Monitor determines that the requested offer prices are consistent with the Internal Market Monitor's capacity price estimate, then the resource's New Resource Offer Floor Price shall be equal to the requested offer price, subject to the provisions of subsection (vii) concerning New Import Capacity Resources.

(vi) If the Internal Market Monitor determines that the requested offer prices are not consistent with the Internal Market Monitor's capacity price estimate, then the resource's offer prices shall be set to a level that is consistent with the capacity price estimate, as determined by the Internal Market Monitor. Any such determination will be explained in the resource's qualification determination notification and will be filed with the Commission as part of the filing described in Section III.13.8.1(c), subject to the provisions of subsection (vii) concerning New Import Capacity Resources.

(vii) For New Import Capacity Resources that have been found to be associated with a pivotal supplier as determined pursuant to Section III.A.23, if the supplier elects to revise the requested offer prices pursuant to Section III.13.1.3.5.7 to values that are below the Internal Market Monitor's capacity price estimate established pursuant to subsection (v) or (vi), then the resource's offer prices shall be equal to the revised offer prices.

(c) For a Nnew Ceapacity Rresource composed of Aassets having different technology types the Offer Review Trigger Price shall be the weighted average of the Offer Review Trigger Prices of the Aasset technology types of the Aassets that comprise the New Capacity Rresource, based on the expected ~~capacity~~ contribution from each Aasset technology type toward the FCA Qualified Capacity of the New Capacity Resource. Sufficient documentation must be included in the New Capacity ~~r~~Resource's New Capacity ~~q~~Qualification Ppackage or New Demand Capacity Resource Qualification Package to permit the Internal Market Monitor to determine the weighted average Offer Review Trigger Price.

***

M E M O R A N D U M

TO: NEPOOL Participants Committee Members and Alternates

FROM: Sebastian Lombardi and Rosendo Garza, NEPOOL Counsel

DATE: March 17, 2021

RE: Updating Offer Review Trigger Price (ORTP) Values for FCA16

At the March 24, 2021 Participants Committee teleconference meeting, you will be asked to consider the matter deferred from the March 4 meeting on ORTP provisions to become effective for use in the sixteenth Forward Capacity Auction (FCA16). Recall that this matter was deferred because the ISO indicated it was contemplating further revisions to its ORTP proposal. The Committee also agreed to defer consideration of the February 24 Markets Committee (MC)-recommended ORTP Proposal.[1] The MC consideration of the ISO's further modified ORTP proposal is scheduled to take place this Friday, March 19. We will provide additional/updated materials summarizing any MC actions on this matter following that meeting.

Included with this memorandum are the following Attachments relating to this matter:

- Attachment A: NEPOOL Counsel's February 25, 2021 Memorandum
- Attachment B: The February 24 MC-recommended set of Tariff redlines.
- Attachment C: Materials circulated to the Markets Committee for the March 19 meeting relating to potential changes to previously discussed and voted ORTP proposals.

RELEVANT BACKGROUND AND ISO-NE'S REVISED ORTP PROPOSAL

The ISO's ORTP proposal has undergone a series of revisions since the December 3, 2020 Participants Committee meeting and vote. At the February 24, 2021 Markets Committee meeting, the MC considered but failed to register any support for the ISO's last modified ORTP proposal. At that same meeting, however, the MC did vote to recommend that the Participants Committee support an alternative package of modified ORTP values/provisions, referred to as the "Feb. 24 MC-recommended ORTP Proposal."

Prior to the March 4 Participants Committee meeting to consider these respective modified ORTP proposals, the ISO published a memorandum in which it acknowledged stakeholders' general concerns regarding ISO-NE's proposed treatment of combined resources and more specific concerns with the planned ORTP treatment for Combined Photovoltaic Solar and Energy Storage Device – Lithium Ion Battery resources. In light of those concerns, the ISO modified its ORTP proposal. Then, at the March 4 meeting, the ISO separately reported that it

[1] Background information on the February 24 MC-recommended ORTP Proposal is provided in Attachment A to this memorandum.

was evaluating whether changes to its discounted cash flow model were needed in light of the ISO's application of Investment Tax Credits (ITC). As a consequence, the ISO decided to withdraw its modified ORTP proposal from consideration by the Participants Committee pending the completion of that evaluation. Since the March 4 meeting, the ISO's consultants have modified their treatment of the ITC in the discounted cash flow model and are now proposing a revised ORTP value for solar resources. In addition, the ISO informed stakeholders that minor changes were also required to each of its proposed FCA 16 ORTP values due to the ISO's proposed updated Performance Payment Rate (PPR) value.[2] As of today, the ISO's proposed ORTP values have been revised as shown in Table 1:

Table 1
Updated ISO-NE ORTPs

Generating Capacity Resources		
Technology Type	**Feb. 24, 2021 ISO-NE ORTP Proposal ($/kW-mo.)**	**Mar. 15, 2021 ISO-NE ORTP Proposal ($/kW-mo.)**
Simple Cycle Combustion Turbine	$5.366	$5.355
Combined Cycle Gas Turbine	$9.819	$9.811
On-Shore Wind	$0.000	$0.000
Off-Shore Wind	N/A	N/A
Energy Storage Device – Lithium Ion Battery	$2.923	$2.912
Photovoltaic Solar	$0.000	$1.381
Combined Photovoltaic Solar and Energy Storage Device – Lithium Ion Battery	$6.964	N/A
Demand Capacity Resource		
Technology Type	**Feb. 24, 2021 ORTP Proposal ($/kW-mo.)**	**Mar. 15, 2021 ORTP Proposal ($/kW-mo.)**
Load Management (Commercial / Industrial)	$0.761	$0.750
Previously Installed Distributed Generation	$0.761	$0.750
New Distributed Generation	Based on generation technology type	Based on generation technology type
On-Peak Solar	$5.425	$5.414
Combined Photovoltaic Solar and Energy Storage Device – Lithium Ion Battery	$7.376	N/A
Energy Efficiency	$0.000	$0.000

UPCOMING MC CONSIDERATION OF THE ISO'S REVISED ORTP PROPOSAL AND POTENTIAL AMENDMENTS TO THE FEB. 24 MC-RECOMMEND ORTP PROPOSAL

At its meeting on Friday, March 19, the MC will consider the ISO's further modified ORTP proposal and associated Tariff revisions, as well as potential amendments to the Feb. 24

[2] The ISO's proposed changes to the filed CONE, Net Cone, and PPR values are being considered separately at this meeting. *See* Agenda Item #1.

MC-recommended ORTP Proposal. As indicated, Attachment C to this memorandum includes the package of materials circulated to the MC and provides additional details concerning this matter, including information about potential amendments that may be offered to the Feb. 24 MC-recommended ORTP Proposal.

After the MC considers any amendments to its previously recommended Feb. 24 ORTP Proposal and votes on the ISO's modified ORTP proposal, NEPOOL Counsel will circulate updated materials to further inform the Participants Committee's consideration of this matter on March 24.

The following form of resolution may be used to initiate Participants Committee consideration at the March 24 meeting:

> RESOLVED, that the Participants Committee supports amending its previously-approved Offer Review Trigger Prices and related Tariff revisions, [as recommended by the Markets Committee at its February 24, 2021 meeting and] as circulated to this Committee in advance of this meeting, together with [those further changes [recommended by the MC at its March 19, 2021 meeting and] [agreed to by the Participants Committee at this meeting and]] such non-substantive changes as may be approved by the Chair and Vice-Chair of the Markets Committee.

If anyone has questions, please contact NEPOOL Counsel (slombardi@daypitney.com and rgarza@daypitney.com).

M E M O R A N D U M

TO: NEPOOL Participants Committee Members and Alternates

FROM: Sebastian Lombardi and Rosendo Garza, NEPOOL Counsel

DATE: February 25, 2021

RE: Updating Offer Review Trigger Prices (ORTP) Values for FCA16

At the March 4, 2021 Participants Committee teleconference meeting, you will be asked to consider the Markets Committee's recommendation to amend NEPOOL's previously-adopted proposal relating to ORTPs, which are to be used in the sixteenth Forward Capacity Auction (FCA16). In addition, you will be asked to consider the ISO's modified set of ORTPs and related Tariff revisions. This memorandum summarizes the relevant background information, explains the voting process, and includes a form of resolution.

In addition, included with this memorandum are the following Attachments:

- Attachment A: The February 24 Markets Committee-recommended set of Tariff redlines.
- Attachment B: The ISO-proposed Tariff redlines for its modified ORTP proposal.
- Attachment C: The Markets Committee's February 24 Notice of Actions.
- Attachment D: The ISO/IMM's background materials.

PROCEDURAL BACKGROUND

Following an extended stakeholder process, on December 3, 2020, the Participants Committee considered and approved, by a 71.84% Vote in favor, a set of ORTP values and related Tariff revisions (among other parameters)[1] to be used in the Forward Capacity Market (FCM) beginning with FCA16. The NEPOOL-approved ORTP revisions differed from those the ISO favored. At the request of the ISO, NEPOOL also considered and voted the ISO-favored ORTP provisions and FCM parameters, which failed with an 18.33% Vote in favor. As a result, a jump ball[2] was established with a NEPOOL-supported alternative to the ISO's proposed set of Tariff revisions.

[1] The additional parameters approved by NEPOOL, which included updates the Cost of New Entry (CONE), Net CONE, and Performance Payment Rate (PPR), were the same parameters favored by the ISO.

[2] In a jump ball proceeding, the ISO and NEPOOL submit both proposals to FERC on equal legal footing. *See* Participants Agreement § 11.1.5. The FERC determines which proposal is "just and reasonable and preferable." *See id.*

DEVELOPMENTS SINCE THE DECEMBER 3 PARTICIPANTS COMMITTEE VOTE

On December 11, 2020, the New England Power Generators Association filed a complaint challenging the ISO's proposed Net CONE calculation for FCA16.[3] Consequently, the ISO (in consultation with NEPOOL Counsel) decided to bifurcate its FCM parameter values filing. As noted in the ISO's December 31, 2020 transmittal letter, the ISO sought a FERC decision on those FCM parameters on which ISO and NEPOOL did not depart (i.e., CONE, Net CONE, and PPR values) in time for the FCA16 qualification process, which begins in March 2021.[4] Explaining that FERC approval of the ORTP values could wait until later in the FCA16 qualification process, the ISO committed to file the two alternative NEPOOL and ISO ORTP proposals in a subsequent jump ball filing.[5]

On December 27, 2020, the federal Consolidated Appropriations Act, 2021 (the Act) was signed into law. Among other things, this Act extended the beginning of construction deadline for the Production Tax Credit (PTC) and the Investment Tax Credit (ITC) for certain renewable resources. Because of this material change in circumstances, the ISO, working with its consultants (Concentric Energy Advisors, Inc. and Mott MacDonald), assessed the impact of the Act and, as explained further below, revised its previously-considered set of ORTP values and related Tariff revisions.

Because the ISO bifurcated its FCM parameters filings, the jump ball proceeding will be limited to the issues where NEPOOL and the ISO disagreed—the ORTPs and related Appendix A revisions. For the sake of clarity herein, the previously adopted NEPOOL alternative will be referred to as the "Dec. 3 NEPOOL ORTP Proposal."

MARKETS COMMITTEE CONSIDERATION

At the February 9–10, 2021 Markets Committee meeting, the ISO presented its initial proposed Tariff revisions resulting from the material change in circumstances caused by the Act. The ISO explained that, because the ITC eligibility was revised for offshore wind and solar technologies, its consultants re-calculated ORTPs for those technology types. The ISO further explained that, because the PTC only applied to onshore wind projects that already had a $0.000/kW-month ORTP, no change to that ORTP was proposed. The ISO also concluded that the tax law changes under the Act warranted Tariff revisions to include a new ORTP value for Combined Photovoltaic Solar and Energy Storage Device – Lithium Ion Battery, as well as additional Tariff revisions regarding the weighted average approach to calculate ORTPs for multiple technology types.

---

[3] Complaint and Request for Fast-Track Process of the New England Power Generators Association, Inc., Docket No. EL21-26 (filed Dec. 11, 2020).

[4] ISO New England Inc., Updates to CONE, Net CONE, and Capacity Performance Payment Rate, Docket No. ER21-787, at 3 (filed Dec. 31, 2020).

[5] *Id.* at 41.

Thus, the ISO proposed the following changes to its previously-favored package of ORTPs and related Tariff provisions (together, the ISO's Revised ORTP Proposal):

- Two new ORTP values in Appendix A:
  - Photovoltaic Solar: $0.000/kW-month
  - Combined Photovoltaic Solar and Energy Storage Device – Lithium Ion Battery: $6.964/kW-month
- Adding Tariff language to Sections III.A.21.1.1 and III.A.21.2(c) stating that the weighted average calculation would only be used when an ORTP for the combination of technology types is not specified in the Tariff
- Proposing new Tariff language to specify the ITC percentages that would be used during the FCAs 17 and 18 ORTP adjustment for Photovoltaic Solar and Combined Photovoltaic Solar and Energy Storage Device – Lithium Ion Battery

At its February 24, 2021 meeting, the Markets Committee first considered whether, in light of the Act and proposed modifications to the ISO-favored ORTPs and related Tariff revisions, the Dec. 3 NEPOOL ORPT Proposal should also be changed. With a 71.67% Vote in favor, that Committee voted to recommend that the Participants Committee approve three changes (discussed below) to the Dec. 3 NEPOOL ORTP Proposal. In addition, at the request of the ISO, the Markets Committee also considered whether to recommend NEPOOL Participants Committee support for the ISO's Revised ORTP Proposal. That resolution failed with no Participant voting in support.

1. Union of Concerned Scientists (UCS) (on behalf of RENEW Northeast) Amendment #1: Incorporate the Current ITC values into FCA16 ORTPs[6]

The first amendment offered at the Markets Committee proposed to ensure that the ITC eligibility for solar and offshore wind projects (i.e., 26 percent and 30 percent, respectively) were reflected in the Dec. 3 NEPOOL ORTP Proposal. The latter technology type's ORTP remained unchanged because the Dec. 3 NEPOOL ORTP Proposal included an ORTP of $0.000/kW-month. The former technology type's ORTP, however, changed. Thus, UCS Amendment #1 modified the Dec. 3 NEPOOL ORTP Proposal by striking out the Photovoltaic Solar ORTP of $1.861/kW-month and inserting a $0.000/kW-month value (which is the same value as the ISO's modified ORTP proposal[7]). This motion to amend the Dec. 3 NEPOOL ORTP Proposal passed at the Markets Committee with a 73.81% Vote in favor.

[6] To review UCS's presentation, please click here.

[7] Although the ISO and the Markets Committee propose the same ORTP for solar resources, the Markets Committee-supported value includes an assumption of a longer economic life, an assumption that was approved by the Participants Committee when it approved the Dec. 3 NEPOOL ORTP Proposal. The ISO's new solar ORTP assumes a 20-year economic life.

2. UCS Amendment #2: Reflecting the Solar ITC Phase Down Values in ORTP Annual Adjustments for FCAs 17 and 18[8]

The Markets Committee next considered UCS's second amendment, which sought to add Tariff language to the Dec. 3 NEPOOL ORTP Proposal's requirement for the ISO, during the ORTP adjustments for FCAs 17 and 18, to update the PTC and ITC inputs of the capital budgeting model to reflect the most current tax law. UCS's amendment proposed additional Tariff language intended to ensure that the capital budgeting model for the photovoltaic solar resource would include 26% ITC for FCA17, 22% for FCA18, and 10% thereafter. This motion passed with a 73.71% Markets Committee Vote in favor.

3. Advanced Energy Economy, Borrego Solar Systems, Enel X, ENGIE North America, and RENEW Northeast's Amendments to Section III.A.21.1.1[9]

The third and final amendment to the Dec. 3 NEPOOL ORTP Proposal considered by the Markets Committee, which was jointly proposed by a number of Participants, was offered to ensure that new capacity resources composed of assets having different technology types received an ORTP based on the weighted average of the ORTPs of the asset technology types that composed the capacity resource. Specifically, co-located assets of multiple technology types registering as a single resource would receive an ORTP equal to the weighted average of the ORTPs applicable to the assets comprising the resource. For co-located assets of multiple technology types registering as separate FCM resources, the ORTPs assigned would be the applicable ORTP to the underlying technology type. To effectuate the joint amendment's purpose, Tariff language was proposed to Section III.A.21.1.1. Relatedly, the joint amendment also struck out the Combined Photovoltaic Solar and Energy Storage Device – Lithium Ion Battery Demand Capacity Resource ORTP from the Dec. 3 NEPOOL ORTP Proposal. The proponents argued that the ORTP for this demand capacity resource was inconsistent with the existing Tariff language. This third amendment passed with a Markets Committee a 75.31% Vote in favor.

With Markets Committee support for three amendments to the Dec. 3 NEPOOL ORTP Proposal, the Markets Committee then considered and, with a 71.667% Vote in favor, voted to recommend that the Participants Committee support the modified package of ORTP provisions.[10] Thus, the Participants Committee will consider whether to change its prior support for the Dec. 3 NEPOOL ORTP Proposal in favor of the modified package recommended by the Markets Committee, which is referred to herein as the "MC-recommended Modified NEPOOL ORTP Proposal."

---

[8] UCS's presentation explaining its amendment can be reviewed here.

[9] The presentation fully describing the joint amendment can be accessed here.

[10] The individual Sector votes at the Markets Committee were as follows: *Generation* – 4.77% in favor, 11.93% opposed, 0 abstentions; *Transmission* – 16.7% in favor, 0% opposed, 0 abstentions; *Supplier* – 5.01% in favor, 11.69% opposed, 5 abstentions; *Publicly Owned Entity* – 16.7% in favor, 0% opposed, 0 abstentions; *Alternative Resources* – 11.79% in favor, 4.71% opposed, 0 abstentions; and *End User* – 16.7% in favor, 0% opposed, 1 abstention.

At the request of the ISO, the Markets Committee also voted on the ISO's Revised ORTP Proposal. That Proposal received a 0% Vote in favor; thus, it was not recommended by the Markets Committee.[11]

For the sake of convenience, the following table provides the Markets Committee-recommended ORTPs, as well as the ISO's updated ORTPs.

Revised ORTPs Since the December 3 NPC Vote (New ORTPs Highlighted in Green)		
Generating Capacity Resources		
Technology Type	**ISO-NE's ORTP ($/kW-month)**	**Markets Committee-Supported ORTP ($/kW-month)**
Simple Cycle Combustion Turbine	$5.366	$5.366
Combined Cycle Gas Turbine	$9.819	$9.819
On-Shore Wind	$0.000	$0.000
Off-Shore Wind	N/A[12]	$0.000
Energy Storage Device – Lithium Ion Battery	$2.923	$2.612
Photovoltaic Solar	$0.000	$0.000[13]
Combined Photovoltaic Solar and Energy Storage Device – Lithium Ion Battery	$6.964	N/A
Demand Capacity Resources		
Technology Type	**ISO-NE's ORTP ($/kW-month)**	**Markets Committee-Supported ORTP ($/kW-month)**
Load Management (Commercial / Industrial)	$0.761	
Previously Installed Distributed Generation	$0.761	
New Distributed Generation	Based on generation technology type	
On-Peak Solar	$5.425	
Combined Photovoltaic Solar and Energy Storage Device – Lithium Ion Battery	$7.376	N/A
Energy Efficiency	$0.000	

[11] The individual Sector votes at the Markets Committee were as follows: *Generation* – 0% in favor, 16.7% opposed, 1 abstention; *Transmission* – 0% in favor, 16.7% opposed, 3 abstentions; *Supplier* – 0% in favor, 16.7% opposed, 8 abstentions; *Publicly Owned Entity* – 0% in favor, 16.7% opposed, 0 abstentions; *Alternative Resources* – 0% in favor, 16.5% opposed, 0 abstentions; and *End User* – 0% in favor, 16.7% opposed, 2 abstentions.

[12] Although the ISO inputted a 30% ITC into the capital budgeting model when evaluating the Act's impact on offshore wind resources, that technology type's ORTP under the ISO's calculation was still above the FCA starting price. As a result, the ISO did not include an offshore wind-specific ORTP in its proposed updated Tariff revisions.

[13] *See supra* note 7 and accompanying text.

THE PARTICIPANTS COMMITTEE VOTING PROCESS

Following its standard process, the starting point at the March 4 Participants Committee meeting will be to consider whether to support the MC-recommended Modified NEPOOL ORTP Proposal instead of the previously-approved Dec. 3 NEPOOL ORTP Proposal. The following form of resolution may be used to initiate Participants Committee consideration:

> RESOLVED, that the Participants Committee supports amending its previously-approved Offer Review Trigger Prices and related Tariff revisions as recommended by the Markets Committee at its February 24, 2021 meeting, and as circulated to this Committee in advance of this meeting, together with [any changes agreed to by the Participants Committee at this meeting and] such non-substantive changes as may be approved by the Chair and Vice-Chair of the Markets Committee.

If the MC-recommended Modified NEPOOL ORTP Proposal is not further amended and that Proposal receives a 60% or greater Vote in favor, then the Modified NEPOOL ORTP Proposal will be the Participants Committee-approved alternative to the ISO's Revised ORTP Proposal. If the motion to support the MC-recommended Modified NEPOOL ORTP Proposal fails to pass, then the Dec. 3 NEPOOL ORTP Proposal will remain as NEPOOL's-approved alternative to the ISO's Proposal.

Following the Participants Committee's standard process, any member or alternate may offer an amendment to the MC-recommended Modified NEPOOL ORTP Proposal.[14] Any amendments, including an amended package, will need to receive at least a 60% Vote in favor to be supported. Participants need to be aware that, under the intended voting process, if the Participants Committee first amends the MC-recommended Modified NEPOOL ORTP Proposal at its March 4 meeting but then fails to support the amended MC-recommended Modified NEPOOL ORTP Proposal, then NEPOOL will not have an approved alternative and as your counsel we will no longer be in a position to advocate for a NEPOOL alternative to the ISO's Revised ORTP Proposal (including the Dec. 3 NEPOOL ORTP Proposal). In the event the MC-recommended Modified NEPOOL ORTP Proposal is amended and that amended proposal also receives a 60% or greater Vote in favor, then the jump ball will reflect that amended proposal.

Consistent with ISO's rights under the Participants Agreement, we expect that the ISO will request a separate vote on the ISO's Revised ORTP Proposal following Committee action on the MC-recommended Modified NEPOOL ORTP Proposal.

Given the unique and unprecedented circumstances before us, we offer Figure 1 to provide further clarity to the Participants Committee members and alternates on the contemplated voting process for the March 4 meeting on a modified alternative NEPOOL ORTP proposal.

[14] At this time, we have not been advised of any such proposed amendments.

Figure 1: NPC Voting Process

If anyone wishes to offer amendments for Participants Committee consideration, please provide those amendments to NEPOOL Counsel (slombardi@daypitney.com and rgarza@daypitney.com) as soon as possible so that we can circulate them in time for member review and consideration before the meeting.

February 24 Markets Committee-recommended Modified ORTP Proposal

- **NEPOOL-supported Tariff revisions to the ISO's ORTP proposal, as approved by the NEPOOL Participants Committee at its December 3, 2020 meeting, are highlighted in green.**
- **Markets Committee-recommended changes to the NEPOOL-supported Tariff revisions, as supported at the February 24, 2021 Markets Committee meeting, are highlighted in yellow.**
- **NOTE: Any remaining redlines that are not highlighted are those the ISO proposed and were approved by the Participants Committee at its December 3, 2020 meeting.**

I.2 Rules of Construction; Definitions

***

I.2.2. Definitions:

In this Tariff, the terms listed in this section shall be defined as described below:

***

New Capacity Resource Economic Life is the number of years that is the lesser of (a) the period of time that a New Capacity Resource of a given technology type or types would reasonably be expected to operate before the resource becomes unprofitable for at least two consecutive years, (b) the expected physical operating life of the resource, or (c) 35 years.

***

Offer Review Trigger Prices are the prices specified in Section III.A.21.1 of Market Rule 1 associated with the submission of New Capacity Offers in the Forward Capacity Auction.

***

III.13. Forward Capacity Market.

***

III.13.2. Annual Forward Capacity Auction.

***

III.13.2.3.2. Step 2: Compilation of Offers and Bids.

The auctioneer shall compile all of the offers and bids for that round, as follows:

(a) **Offers from New Generating Capacity Resources, New Import Capacity Resources, and New Demand Capacity Resources.**

***

(v) Capacity associated with a New Import Capacity Resource (other than a New Import Capacity Resource that is backed by a single new External Resource and that is associated with an investment in transmission that increases New England's import capability or a New Import Capacity Resource that is associated with an Elective Transmission Upgrade) shall be automatically included in the aggregate supply curves as described in Section III.13.2.3.3 at prices at or above the resource's offer prices (as they may be modified pursuant to Section III.A.21.2) and shall be automatically removed from the aggregate supply curves at prices below the resource's offer prices (as they may be modified pursuant to Section III.A.21.2), except under the following circumstances:

In any round of the Forward Capacity Auction in which prices are below the Dynamic De-List Bid Threshold, the Project Sponsor for a New Import Capacity Resource (other than a New Import Capacity Resource that is backed by a single new External Resource and that is associated with an investment in transmission that increases New England's import capability or a New Import Capacity Resource that is associated with an Elective Transmission Upgrade) with offer prices (as they may be modified pursuant to Section III.A.21.2) that are less than the Dynamic De-L~~l~~ist Bid Threshold may submit a New Capacity Offer indicating the quantity of capacity that the Project Sponsor would commit to provide from the resource during the Capacity Commitment

Period at that round's prices. Such an offer shall be defined by the submission of one to five prices, each less than the Dynamic De-List Bid Threshold (or the Start-of-Round Price, if lower than the Dynamic De-List Bid Threshold) but greater than or equal to the End-of-Round Price, and a single quantity associated with each price. Such an offer shall be expressed in the same form as specified in Section III.13.2.3.2(a)(i) and shall imply a curve indicating quantities at all of that round's relevant prices, pursuant to the convention of Section III.13.2.3.2(a)(iii). The curve may not increase the quantity offered as the price decreases.

***

III.13.2.4. Forward Capacity Auction Starting Price and the Cost of New Entry.

***

Between recalculations, CONE and Net CONE will be adjusted for each Forward Capacity Auction pursuant to Section III.A.21.1.2(e) (except that the bonus tax depreciation adjustment described in Section III.A.21.1.2(e)(5) shall not apply). Prior to applying the annual adjustment for the Capacity Commitment Period beginning on June 1, 2019, Net CONE will be reduced by $0.43/kW-month to reflect the elimination of the PER adjustment. The adjusted CONE and Net CONE values will be published on the ISO's web site.

***

SECTION III

MARKET RULE 1

APPENDIX A

MARKET MONITORING,
REPORTING AND MARKET POWER MITIGATION

***

MARKET MONITORING, REPORTING AND MARKET POWER MITIGATION

***

III.A.21.1.1. Offer Review Trigger Prices for the Forward Capacity Auction.

For resources other than New Import Capacity Resources, the Offer Review Trigger Prices for the ~~twelfth Forward Capacity Auction (for the~~ Capacity Commitment Period beginning on June 1, 2025~~2021)~~ shall be as follows:

Generating Capacity Resources	
Technology Type	**Offer Review Trigger Price ($/kW-month)**
Simple Cycle ~~c~~Combustion ~~t~~Turbine	$5.366~~6.503~~
~~c~~Combined ~~c~~Cycle ~~g~~Gas ~~t~~Turbine	$9.819~~7.856~~
~~o~~On-~~s~~Shore ~~w~~Wind	$0.000~~11.025~~
Off-Shore Wind	$0.000
Energy Storage Device – Lithium Ion Battery	$2.612~~2.923~~
Photovoltaic Solar	$0.000~~1.861~~

Demand Capacity Resources ~~– Commercial and Industrial~~	
Technology Type	**Offer Review Trigger Price ($/kW-month)**
Load Management (Commercial / Industrial)~~and/or previously installed Distributed Generation~~	$0.761~~1.008~~
Previously Installed Distributed Generation	$0.761
~~n~~New Distributed Generation	~~b~~Based on generation technology type
On-Peak Solar	$5.425
~~Combined Photovoltaic Solar and Energy Storage Device – Lithium Ion Battery~~	~~$7.376~~
Energy Efficiency	$0.000

~~Demand Capacity Resources – Residential~~	
~~**Technology Type**~~	~~**Offer Review Trigger Price ($/kW-month)**~~
~~Load Management~~	~~$7.559~~
~~previously installed Distributed Generation~~	~~$1.008~~
~~new Distributed Generation~~	~~based on generation technology type~~
~~Energy Efficiency~~	~~$0.000~~

Other Resources	
All other technology types	Forward Capacity Auction Starting Price

Where one or more assets sharing a point of interconnection register as a New Capacity Resource that does not include all of the assets sharing the point of interconnection, the Offer Review Trigger Price for the New Capacity Resource will be assigned according only to the asset or assets comprising the New Capacity Resource.

Where a new resource is composed of assets having different technology types (including, but not limited to, a photovoltaic solar generator sharing a point of interconnection with an energy storage device participating in the energy market as one or more assets and participating in the capacity market as a single New Capacity Resources), the resource's Offer Review Trigger Price will be calculated in accordance with the weighted average formula in Section III.A.21.2(c).

For purposes of determining the Offer Review Trigger Price of a Demand Capacity Resource composed in whole or in part of Distributed Generation, the Distributed Generation is considered new, rather than previously installed, if (1) the Project Sponsor for the New Demand Capacity Resource has participated materially in the development, installation or funding of the Distributed Generation during the five years prior to commencement of the Capacity Commitment Period for which the resource is being qualified for participation, and (2) the Distributed Generation has not been assigned to a Demand Capacity Resource with a Capacity Supply Obligation in a prior Capacity Commitment Period.

For a New Import Capacity Resource that is backed by a single new External Resource and that is associated with an investment in transmission that increases New England's import capability, the Offer Review Trigger Prices in the table above shall apply, based on the technology type of the External Resource; provided that, if a New Import Capacity Resource is associated with an Elective Transmission Upgrade, it shall have an Offer Review Trigger Price of the Forward Capacity Auction Starting Price plus $0.01/kW-month.

For any other New Import Capacity Resource, the Offer Review Trigger Price shall be the Forward Capacity Auction Starting Price plus $0.01/kW-month.

III.A.21.1.2. Calculation of Offer Review Trigger Prices.

(a) The Offer Review Trigger Price for each of the technology types listed above shall be recalculated using updated data for the Capacity Commitment Period beginning on June 1, 2025 and no less often than once every three years thereafter. Where any Offer Review Trigger Price is recalculated, the Internal Market Monitor will review the results of the recalculation with stakeholders and the new Offer Review Trigger Price shall be filed with the Commission prior to the Forward Capacity Auction in which the Offer Review Trigger Price is to apply.

(b) For New Generating Capacity Resources, the methodology used to recalculate the Offer Review Trigger Price pursuant to subsection (a) above is as follows. Capital costs, expected non-capacity revenues and operating costs, assumptions regarding depreciation, taxes and discount rate are input into a capital budgeting model which is used to calculate the break-even contribution required from the Forward Capacity Market to yield a discounted cash flow with a net present value of zero for the project. The Offer Review Trigger Price is set equal to the year-one capacity price output from the model. The model looks at ~~20 years of~~ real-dollar cash flows discounted at a rate (Weighted Average Cost of Capital) consistent with that expected of a project whose output is under contract (i.e., a contract negotiated at arm's length between two unrelated parties). over the New Capacity Resource Economic Life of the project.

(c) For New Demand Capacity Resources comprised of Energy Efficiency, the methodology used to recalculate the Offer Review Trigger Price pursuant to subsection (a) above shall be the same as that used for New Generating Capacity Resources, with the following exceptions. First, the model takes account of all costs incurred by the utility and end-use customer to deploy the efficiency measure. Second, rather than energy revenues, the model recognizes end-use customer savings associated with the efficiency programs. Third, the model assumes that all costs are expensed as incurred. Fourth, the benefits realized by end-use customers are assumed to have no tax implications for the utility. Fifth, the model discounts cash flows over the Measure Life of the energy efficiency measure.

(d) For New Demand Capacity Resources other than Demand Capacity Resources comprised of Energy Efficiency, the methodology used to recalculate the Offer Review Trigger Price pursuant to subsection (a) above is the same as that used for New Generating Capacity Resources, except that the model discounts cash flows over the contract life. For Demand Capacity Resources (other than those comprised of Energy Efficiency) that are composed primarily of large commercial or industrial customers that use pre-existing equipment or strategies, incremental costs include new equipment costs and annual operating costs such as customer incentives and sales representative commissions. For Demand Capacity Resources (other than Demand Capacity Resources comprised of Energy Efficiency) primarily composed of residential or small commercial customers that do not use pre-existing equipment or strategies, incremental costs include equipment costs, customer incentives, marketing, sales, and recruitment costs, operations and maintenance costs, and software and network infrastructure costs.

(e) For years in which no full recalculation is performed pursuant to subsection (a) above, the Offer Review Trigger Prices will be adjusted as follows:

(1) For the simple cycle combustion turbine and combined cycle gas turbine technology types, ~~E~~each line item associated with capital costs that is included in the capital budgeting model will be updated to reflect changes in the Bureau of Labor Statistics Producer Price Index for Machinery and Equipment: General Purpose Machinery and Equipment (WPU114). For all other Generating Capacity Resource technology types, each line item associated with capital costs that is included in the capital budgeting model will be updated to reflect changes in the levelized cost of energy for that technology as published by Bloomberg.~~associated with the indices included in the table below:~~

~~**Cost Component**~~	~~**Index**~~
~~gas turbines~~	~~BLS PPI "Turbines and Turbine Generator Sets"~~
~~steam turbines~~	~~BLS PPI "Turbines and Turbine Generator Sets"~~
~~wind turbines~~	~~Bloomberg Wind Turbine Price Index~~

~~Other Equipment~~	~~BLS-PPI "General Purpose Machinery and Equipment"~~
~~construction labor~~	~~BLS "Quarterly Census of Employment and Wages" 2371 Utility System Construction Average Annual Pay:~~ ~~– Combustion turbine and combined cycle gas turbine costs to be indexed to values corresponding to the location of Hampden County, Massachusetts~~ ~~– On-shore wind costs to be indexed to values corresponding to the location of Cumberland County, Maine~~
~~other labor~~	~~BLS "Quarterly Census of Employment and Wages" 2211 Power Generation and Supply Average Annual Pay:~~ ~~– Combustion turbine and combined cycle gas turbine costs to be indexed to values corresponding to the location of Hampden County, Massachusetts~~ ~~– On-shore wind costs to be indexed to values corresponding to the location of Cumberland County, Maine~~
~~materials~~	~~BLS-PPI "Materials and Components for Construction"~~
~~electric interconnection~~	~~BLS - PPI "Electric Power Transmission, Control, and Distribution"~~
~~gas interconnection~~	~~BLS - PPI "Natural Gas Distribution: Delivered to ultimate consumers for the account of others (transportation only)"~~
~~fuel inventories~~	~~Federal Reserve Bank of St. Louis "Gross Domestic Product: Implicit Price Deflator (GDPDEF)"~~

~~(2) Each line item associated with fixed operating and maintenance costs that is included in the capital budgeting model will be associated with the indices included in the table below:~~

~~**Cost Component**~~	~~**Index**~~
~~labor, administrative and general~~	~~BLS "Quarterly Census of Employment and Wages" 2211 Power Generation and Supply Average Annual Pay:~~ ~~– Combustion turbine and combined cycle gas turbine costs to be indexed to values corresponding to the location of Hampden County, Massachusetts~~ ~~– On-shore wind costs to be indexed to values corresponding to the location of Cumberland County, Maine~~
~~materials and contract services~~	~~BLS-PPI "Materials and Components for Construction"~~

~~site leasing costs~~	~~Federal Reserve Bank of St. Louis "Gross Domestic Product: Implicit Price Deflator (GDPDEF)"~~

(2~~3~~) For each line item in (1) ~~and (2)~~ above, the ISO shall calculate a multiplier that is equal to the average of values published during the most recent 12 month period available at the time of making the adjustment divided by the average of the most recent 12 month period available at the time of establishing the Offer Review Trigger Prices ~~for the FCA~~ reflected in the table in Section III.A.21.1.1 ~~above~~. The value of each line item associated with capital costs ~~and fixed operating and maintenance costs included~~ in the capital budgeting model for the FCA reflected in the table in Section A.21.1.1 ~~above~~ will be adjusted by the relevant multiplier.

(3~~4~~) The energy and ancillary services offset values for gas~~each~~ technology type~~s~~ in the capital budgeting model shall be adjusted by inputting to the capital budgeting model the ~~most recent~~ Henry Hub natural gas futures prices, the Algonquin Citygates Basis natural gas futures prices and the Massachusetts Hub Day-Ahead Peak ~~On-Peak~~ electricity prices, as published by ICE for the first five trading days in February, for each~~the~~ month~~s in the Capacity Commitment Period beginning June 1~~ of the Capacity Commitment Period to which the updated value will apply~~, 2021, as published by ICE~~.

The energy and ancillary services offset values for non-gas technology types in the capital budgeting model shall be adjusted by inputting to the capital budgeting model the Massachusetts Hub Day-Ahead Peak electricity prices, as published by ICE for the first five trading days in February, for each month of the Capacity Commitment Period to which the updated value will apply.

(4~~5~~) Renewable energy credit values in the capital budgeting model shall be updated based on the first~~most recent~~ MA Class 1 REC price~~s~~ published in February for the five vintage~~s~~ closest to the first year of the Capacity Commitment Period associated with the relevant FCA as published by SNL Financial.

(5) The bonus tax depreciation adjustment included in the financial model for the Offer Review Trigger Prices (which is 40 percent for the Capacity Commitment Period beginning on June 1, 2025), shall be 20

percent for the Capacity Commitment Period beginning on June 1, 2026, and zero for the Capacity Commitment Period beginning on June 1, 2027 and thereafter.

(6) The Investment Tax Credit input into the capital budgeting model for the Photovoltaic Solar Generating Capacity Resource shall be 26 percent for the Capacity Commitment Period beginning on June 1, 2026, 22 percent for the Capacity Commitment Period beginning on June 1, 2027, and 10 percent thereafter.

The Production Tax Credit and Investment Tax Credit inputs into the capital budgeting model, including the aforementioned input, will be updated to reflect the most current tax law at the time of the update.

(7)~~(6)~~ The capital budgeting model and the Offer Review Trigger Prices adjusted pursuant to this subsection (e) will be published on the ISO's web site.

(8)~~(7)~~ If any of the values required for the calculations described in this subsection (e) are unavailable, then comparable values, prices or sources shall be used.

III.A.21.2. New Resource Offer Floor Prices and Offer Prices.

For every new resource participating in a Forward Capacity Auction, the Internal Market Monitor shall determine a New Resource Offer Floor Price or offer prices, as described in this Section III.A.21.2.

(a) For a Lead Market Participant with a New Capacity Resource that does not submit a request to submit offers in the Forward Capacity Auction at prices that are below the relevant Offer Review Trigger Price as described in Sections III.13.1.1.2.2.3, III.13.1.3.5 or III.13.1.4.1.1.2.8, the New Resource Offer Floor Price shall be calculated as follows:

For a New Import Capacity Resource (other than a New Import Capacity Resource that is (i) backed by a single new External Resource and that is associated with an investment in transmission that increases New England's import capability or (ii) associated with an Elective Transmission Upgrade) the New Resource Offer Floor Price shall be $0.00/kW-month.

For a New Generating Capacity Resource, New Import Capacity Resource that is backed by a single new External Resource and that is associated with an investment in transmission that increases New England's import capability, New Import Capacity Resource that is associated with an Elective Transmission Upgrade, and New Demand Capacity Resource, the New Resource Offer Floor Price shall be equal to the applicable Offer Review Trigger Price.

A resource having a New Resource Offer Floor Price higher than the Forward Capacity Auction Starting Price shall not be included in the Forward Capacity Auction.

(b) For a Lead Market Participant with a New Capacity Resource that does submit a request to submit offers in the Forward Capacity Auction at prices that are below the relevant Offer Review Trigger Price as described in Sections III.13.1.1.2.2.3, III.13.1.3.5 and III.13.1.4.1.1.2.8, the resource's New Resource Offer Floor Price and offer prices in the case of a New Import Capacity Resource (other than a New Import Capacity Resource that is backed by a single new External Resource and that is associated with an investment in transmission that increases New England's import capability or a New Import Capacity Resource that is associated with an Elective Transmission Upgrade) shall be calculated as follows:

For a New Import Capacity Resource that is subject to the pivotal supplier test in Section III.A.23 and is found not to be associated with a pivotal supplier as determined pursuant to Section III.A.23, the resource's New Resource Offer Floor Price and offer prices shall be equal to the lower of (i) the requested offer price submitted to the ISO as described in Sections III.13.1.1.2.2.3 and III.13.1.3.5; or (ii) the price revised pursuant to Section III.13.1.3.5.7.

For any other New Capacity Resource, the Internal Market Monitor shall enter all relevant resource costs and non-capacity revenue data, as well as assumptions regarding depreciation, taxes, New Capacity Resource Economic Life, and discount rate into the capital budgeting model used to develop the relevant Offer Review Trigger Price and shall calculate the break-even contribution required from the Forward Capacity Market to yield a discounted cash flow with a net present value of zero for the project. For a new Capacity Resource with an expected New Capacity Resource Economic Life greater than the New Capacity Resource Economic Life used in Section III.A.21.1.2(b) to calculate the Offer Review Trigger Price for the corresponding technology type, the Project Sponsor shall provide sufficient documentation as described in Section III.A.21.2(b)(iv) to justify its expected New Capacity Resource Economic Life. The Internal Market Monitor shall consider the documentation provided. The Internal Market Monitor shall compare the requested offer price to this capacity price estimate and the resource's New Resource Offer Floor Price and offer prices shall be determined as follows:

(i) The Internal Market Monitor will exclude any out-of-market revenue sources from the cash flows used to evaluate the requested offer price. Out-of-market revenues are any revenues that are: (a) not tradable throughout the New England Control Area or that are restricted to resources within a particular state or other geographic sub-region; or (b) not available to all resources of the same physical type within the New England Control Area, regardless of the resource owner. Expected revenues associated with economic development incentives that are offered broadly by state or local government and that are not expressly intended to reduce prices in the Forward Capacity Market are not considered out-of-market revenues for this purpose. In submitting its requested offer price, the Project Sponsor shall indicate whether and which project cash flows are supported by a regulated rate, charge, or other regulated cost recovery mechanism. If the project is supported by a regulated rate, charge, or other regulated cost recovery mechanism, then that rate will be replaced with the Internal Market Monitor estimate of energy revenues. Where possible, the Internal Market Monitor will use like-unit historical production, revenue, and fuel cost data. Where such information is not available (e.g., there is no resource of that type in service), the Internal Market Monitor will use a forecast provided by a credible third party source. The Internal Market Monitor will review capital costs, discount rates, depreciation and tax treatment to ensure that it is consistent with overall market conditions. Any assumptions that are clearly inconsistent with prevailing market conditions will be adjusted.

(ii) For a New Demand Capacity Resource, the resource's costs shall include all expenses, including incentive payments, equipment costs, marketing and selling and administrative and general costs incurred to acquire and/or develop the Demand Capacity Resource. Revenues shall include all non-capacity payments expected from the ISO-administered markets made for services delivered from the associated Demand Response Resource, and expected costs avoided by the associated end-use customer as a direct result of the installation or implementation of the associated Asset(s).

(iii) For a New Capacity Resource that has achieved commercial operation prior to the New Capacity Qualification Deadline for the Forward Capacity Auction in which it seeks to participate, the relevant capital costs to be entered into the capital budgeting model will be the undepreciated original capital costs adjusted for inflation. For any such resource, the prevailing market conditions will be those that were in place at the time of the decision to construct the resource.

(iv) Sufficient documentation and information must be included in the resource's qualification package to allow the Internal Market Monitor to make the determinations described in this subsection (b). Such documentation should include all relevant financial estimates and cost projections for the project, including the project's pro-forma financing support data. For a New Import Capacity Resource, such documentation should also include the expected costs of purchasing power outside the New England Control Area (including transaction costs and supported by forward power price index values or a power price forecast for the applicable Capacity Commitment Period), expected transmission costs outside the New England Control Area, and expected transmission costs associated with importing to the New England Control Area, and may also include reasonable opportunity costs and risk adjustments. For a new capacity resource that has achieved commercial operation prior to the New Capacity Qualification Deadline, such documentation should also include all relevant financial data of actual incurred capital costs, actual operating costs, and actual revenues since the date of commercial operation. For a New Capacity Resource that has an expected New Capacity Resource Economic Life greater than the New Capacity Resource Economic Life used to calculate the Offer Review Trigger Price for the relevant technology type in Section III.A.21.1.2(b), the Project Sponsor shall

provide evidence to support the expected New Capacity Resource Economic Life, including but not limited to, the asset life term for such resource as utilized in the Project Sponsor's financial accounting (e.g., independently audited financial statements); or project financing documents for the resource or evidence of actual costs or financing assumptions of recent comparable projects to the extent the Project Sponsor has not executed project financing for the resource (e.g., independent project engineer opinion or manufacturer's performance guarantee); or opinions of third-party experts regarding the reasonableness of the financing assumptions used for the project itself or in comparable projects. The Project Sponsor may also rely on evidence presented in federal filings, such as its FERC Form No. 1 or an SEC Form 10-K, to demonstrate an expected New Capacity Resource Economic Life other than the New Capacity Resource Economic Life of similar projects. If there are multiple technology types in the New Capacity Resource, the New Capacity Resource Economic Life should reflect the weighted average of the New Capacity Resource Economic Life of each of the technology types. For a New Capacity Resource that is receiving an out-of-market revenue source and that is seeking a different Weighted Average Cost of Capital than the Net CONE reference unit, the Project Sponsor must submit documentation to demonstrate that the requested Weighted Average Cost of Capital is consistent with that of a resource not receiving out-of-market revenues. This documentation could include but not be limited to publicly available information sources or private information relevant to projects in North America that are not receiving out-of-market revenues. If the supporting documentation and information required by this subsection (b) is deficient, the Internal Market Monitor, at its sole discretion, may consult with the Project Sponsor to gather further information as necessary to complete its analysis. If after consultation, the Project Sponsor does not provide sufficient documentation and information for the Internal Market Monitor to complete its analysis, then the resource's New Resource Offer Floor Price shall be equal to the Offer Review Trigger Price.

(v) If the Internal Market Monitor determines that the requested offer prices are consistent with the Internal Market Monitor's capacity price estimate, then the resource's New Resource Offer Floor Price shall be equal to the requested offer price, subject to the provisions of subsection (vii) concerning New Import Capacity Resources.

(vi) If the Internal Market Monitor determines that the requested offer prices are not consistent with the Internal Market Monitor's capacity price estimate, then the resource's offer prices shall be set to a level that is consistent with the capacity price estimate, as determined by the Internal Market Monitor. Any such determination will be explained in the resource's qualification determination notification and will be filed with the Commission as part of the filing described in Section III.13.8.1(c), subject to the provisions of subsection (vii) concerning New Import Capacity Resources.

(vii) For New Import Capacity Resources that have been found to be associated with a pivotal supplier as determined pursuant to Section III.A.23, if the supplier elects to revise the requested offer prices pursuant to Section III.13.1.3.5.7 to values that are below the Internal Market Monitor's capacity price estimate established pursuant to subsection (v) or (vi), then the resource's offer prices shall be equal to the revised offer prices.

(c) For a new capacity resource composed of assets having different technology types the Offer Review Trigger Price shall be the weighted average of the Offer Review Trigger Prices of the asset technology types of the assets that comprise the resource, based on the expected capacity contribution from each asset technology type. Sufficient documentation must be included in the resource's qualification package to permit the Internal Market Monitor to determine the weighted average Offer Review Trigger Price.

***

The "base" redlined changes are the version voted on at the December 2020 Participants Committee meeting. Changes to the version of the Tariff redlines voted on at the December 2020 Participants Committee meeting are highlighted in yellow. Changes that were proposed at the February 2021 Markets Committee meeting but have since been withdrawn (and therefore are not being voted on at the March PC) are noted with a comment bubble.

I.2 Rules of Construction; Definitions

***

Offer Review Trigger Prices are the prices specified in Section III.A.21.1 of Market Rule 1 associated with the submission of New Capacity Offers in the Forward Capacity Auction.

***

III.13.2. Annual Forward Capacity Auction.

***

III.13.2.4. Forward Capacity Auction Starting Price and the Cost of New Entry.

The Forward Capacity Auction Starting Price is max [1.6 multiplied by Net CONE, CONE]. References in this Section III.13 to the Forward Capacity Auction Starting Price shall mean the Forward Capacity Auction Starting Price for the Forward Capacity Auction associated with the relevant Capacity Commitment Period.

CONE for the Forward Capacity Auction for the Capacity Commitment Period beginning on June 1, 2025 is $11.874/kW-month.

Net CONE for the Forward Capacity Auction for the Capacity Commitment Period beginning on June 1, 2025 is $7.024/kW-month.

CONE and Net CONE shall be recalculated no less often than once every three years. Whenever these values are recalculated, the ISO will review the results of the recalculation with stakeholders and the new values will be filed with the Commission prior to the Forward Capacity Auction in which the new value is to apply.

Between recalculations, CONE and Net CONE will be adjusted for each Forward Capacity Auction pursuant to Section III.A.21.1.2(e) (except that the bonus tax depreciation adjustment described in Section III.A.21.1.2(e)(5) shall not apply). Prior to applying the annual adjustment for the Capacity Commitment Period beginning on June 1, 2019, Net CONE will be reduced by $0.43/kW-month to reflect the elimination of the PER adjustment. The adjusted CONE and Net CONE values will be published on the ISO's web site.

***

SECTION III

MARKET RULE 1

APPENDIX A

**MARKET MONITORING,
REPORTING AND MARKET POWER MITIGATION**

***

MARKET MONITORING, REPORTING AND MARKET POWER MITIGATION

***

III.A.21. Review of Offers From New Resources in the Forward Capacity Market.

The Internal Market Monitor shall review offers from new resources in the Forward Capacity Auction as described in this Section III.A.21.

III.A.21.1. Offer Review Trigger Prices.

For each new technology type, the Internal Market Monitor shall establish an Offer Review Trigger Price. Offers in the Forward Capacity Auction at prices that are equal to or above the relevant Offer Review Trigger Price will not be subject to further review by the Internal Market Monitor. A request to submit offers in the Forward Capacity Auction at prices that are below the relevant Offer Review Trigger Price must be submitted in advance of the Forward Capacity Auction as described in Sections III.13.1.1.2.2.3, III.13.1.3.5 or III.13.1.4.1.1.2.8 and shall be reviewed by the Internal Market Monitor as described in this Section III.A.21.

III.A.21.1.1. Offer Review Trigger Prices for the Forward Capacity Auction.

For resources other than New Import Capacity Resources, the Offer Review Trigger Prices for the ~~twelfth Forward Capacity Auction (for the~~ Capacity Commitment Period beginning on June 1, 202~~51)~~ shall be as follows:

Generating Capacity Resources	
Technology Type	**Offer Review Trigger Price ($/kW-month)**
Simple Cycle ~~c~~Combustion ~~t~~Turbine	$5.3555.3666.503
~~c~~Combined ~~c~~Cycle ~~g~~Gas ~~t~~Turbine	$9.8119.869.8197.856
~~o~~On-~~s~~Shore ~~w~~Wind	$0.00011.025
Energy Storage Device – Lithium Ion Battery	$2.9122.923
Photovoltaic Solar	$1.3810.000
~~Combined Photovoltaic Solar and Energy Storage Device – Lithium Ion Battery~~	~~$6.964~~

Commented [A1]: Added Combined Solar/Storage for the February 2021 MC; striking for the March 2021 PC.

Demand Capacity Resources ~~– Commercial and Industrial~~	
Technology Type	**Offer Review Trigger Price ($/kW-month)**
Load Management (Commercial / Industrial)~~and/or previously installed Distributed Generation~~	$0.7500.7611.008
Previously Installed Distributed Generation	$0.7500.761
~~n~~New Distributed Generation	~~b~~Based on generation technology type
On-Peak Solar	$5.4145.425
~~Combined Photovoltaic Solar and Energy Storage Device – Lithium Ion Battery~~	~~$7.376~~
Energy Efficiency	$0.000

~~Demand Capacity Resources – Residential~~	
~~**Technology Type**~~	~~**Offer Review Trigger Price ($/kW-month)**~~
~~Load Management~~	~~$7.559~~
~~previously installed Distributed Generation~~	~~$1.008~~
~~new Distributed Generation~~	~~based on generation technology type~~
~~Energy Efficiency~~	~~$0.000~~

Other Resources	
All other technology types	Forward Capacity Auction Starting Price

Where a new resource is composed of assets having different technology types ~~and the combination of technology types is not specified in the tables above~~, the resource's Offer Review Trigger Price will be calculated in accordance with the weighted average formula in Section III.A.21.2(c).

Commented [A2]: Added this language for the February 2021 MC; striking this language for the March 2021 PC.

For purposes of determining the Offer Review Trigger Price of a Demand Capacity Resource composed in whole or in part of Distributed Generation, the Distributed Generation is considered new, rather than previously installed, if (1) the Project Sponsor for the New Demand Capacity Resource has participated materially in the development, installation or funding of the Distributed Generation during the five years prior to commencement of the Capacity Commitment Period for which the resource is being qualified for participation, and (2) the Distributed Generation has not been assigned to a Demand Capacity Resource with a Capacity Supply Obligation in a prior Capacity Commitment Period.

For a New Import Capacity Resource that is backed by a single new External Resource and that is associated with an investment in transmission that increases New England's import capability, the Offer Review Trigger Prices in the table above shall apply, based on the technology type of the External Resource; provided that, if a New Import Capacity Resource is associated with an Elective Transmission Upgrade, it shall have an Offer Review Trigger Price of the Forward Capacity Auction Starting Price plus $0.01/kW-month.

For any other New Import Capacity Resource, the Offer Review Trigger Price shall be the Forward Capacity Auction Starting Price plus $0.01/kW-month.

III.A.21.1.2. Calculation of Offer Review Trigger Prices.

(a) The Offer Review Trigger Price for each of the technology types listed above shall be recalculated using updated data for the Capacity Commitment Period beginning on June 1, 2025 and no less often than once every three years thereafter. Where any Offer Review Trigger Price is recalculated, the Internal Market Monitor will review the results of the recalculation with stakeholders and the new Offer Review Trigger Price shall be filed with the Commission prior to the Forward Capacity Auction in which the Offer Review Trigger Price is to apply.

(b) For New Generating Capacity Resources, the methodology used to recalculate the Offer Review Trigger Price pursuant to subsection (a) above is as follows. Capital costs, expected non-capacity revenues and operating costs, assumptions regarding depreciation, taxes and discount rate are input into a capital budgeting model which is used to calculate the break-even contribution required from the Forward Capacity Market to yield a discounted cash flow with a net present value of zero for the project. The Offer Review Trigger Price is set equal to the year-one capacity price output from the model. The model looks at 20 years of real-dollar cash flows discounted at a rate (Weighted Average Cost of Capital) consistent with that expected of a project whose output is under contract (i.e., a contract negotiated at arm's length between two unrelated parties).

(c) For New Demand Capacity Resources comprised of Energy Efficiency, the methodology used to recalculate the Offer Review Trigger Price pursuant to subsection (a) above shall be the same as that used for New Generating Capacity Resources, with the following exceptions. First, the model takes account of all costs incurred by the utility and end-use customer to deploy the efficiency measure. Second, rather than energy revenues, the model recognizes end-use customer savings associated with the efficiency programs. Third, the model assumes that all costs are expensed as incurred. Fourth, the benefits realized by end-use customers are assumed to have no tax implications for the utility. Fifth, the model discounts cash flows over the Measure Life of the energy efficiency measure.

(d) For New Demand Capacity Resources other than Demand Capacity Resources comprised of Energy Efficiency, the methodology used to recalculate the Offer Review Trigger Price pursuant to subsection (a) above is the same as that used for New Generating Capacity Resources, except that the model discounts cash flows over the contract life. For Demand Capacity Resources (other than those comprised of Energy Efficiency) that are composed primarily of large commercial or industrial customers that use pre-existing equipment or strategies, incremental costs include new equipment costs and annual operating costs such as customer incentives and sales representative commissions. For Demand Capacity Resources (other than Demand Capacity Resources comprised of Energy Efficiency) primarily composed of residential or small commercial customers that do not use pre-existing equipment or strategies, incremental costs include equipment costs, customer incentives, marketing, sales, and recruitment costs, operations and maintenance costs, and software and network infrastructure costs.

(e) For years in which no full recalculation is performed pursuant to subsection (a) above, the Offer Review Trigger Prices will be adjusted as follows:

(1) For the simple cycle combustion turbine and combined cycle gas turbine technology types, Eeach line item associated with capital costs that is included in the capital budgeting model will be updated to reflect changes in the Bureau of Labor Statistics Producer Price Index for Machinery and Equipment: General Purpose Machinery and Equipment (WPU114). For all other Generating Capacity Resource technology types, each line item associated with capital costs that is included in the capital budgeting model will be updated to reflect changes in the levelized cost of energy for that technology as published by Bloomberg.associated with the indices included in the table below:

Cost Component	Index
gas turbines	BLS-PPI "Turbines and Turbine Generator Sets"
steam turbines	BLS-PPI "Turbines and Turbine Generator Sets"
wind turbines	Bloomberg Wind Turbine Price Index
Other Equipment	BLS-PPI "General Purpose Machinery and Equipment"
construction labor	BLS "Quarterly Census of Employment and Wages" 2371 Utility System Construction Average Annual Pay: - Combustion turbine and combined cycle gas turbine costs to be indexed to values corresponding to the location of Hampden County, Massachusetts - On-shore wind costs to be indexed to values corresponding to the location of Cumberland County, Maine
other labor	BLS "Quarterly Census of Employment and Wages" 2211 Power Generation and Supply Average Annual Pay: - Combustion turbine and combined cycle gas turbine costs to be indexed to values corresponding to the location of Hampden County, Massachusetts - On-shore wind costs to be indexed to values corresponding to the location of Cumberland County, Maine
materials	BLS-PPI "Materials and Components for Construction"
electric interconnection	BLS - PPI "Electric Power Transmission, Control, and Distribution"
gas interconnection	BLS - PPI "Natural Gas Distribution: Delivered to ultimate consumers for the account of others (transportation only)"
fuel inventories	Federal Reserve Bank of St. Louis "Gross Domestic Product: Implicit Price Deflator (GDPDEF)"

(2) Each line item associated with fixed operating and maintenance costs that is included in the capital budgeting model will be associated with the indices included in the table below:

Cost Component	Index
labor, administrative and general	BLS "Quarterly Census of Employment and Wages" 2211 Power Generation and Supply Average Annual Pay: - Combustion turbine and combined cycle gas turbine costs to be indexed to values corresponding to the location of Hampden County, Massachusetts

	~~- On-shore wind costs to be indexed to values corresponding to the location of Cumberland County, Maine~~
~~materials and contract services~~	~~BLS PPI "Materials and Components for Construction"~~
~~site leasing costs~~	~~Federal Reserve Bank of St. Louis "Gross Domestic Product: Implicit Price Deflator (GDPDEF)"~~

(~~3~~2) For each line item in (1) ~~and (2)~~ above, the ISO shall calculate a multiplier that is equal to the average of values published during the most recent 12 month period available at the time of making the adjustment divided by the average of the most recent 12 month period available at the time of establishing the Offer Review Trigger Prices ~~for the FCA~~ reflected in the table in Section III.A.21.1.1 ~~above~~. The value of each line item associated with capital costs ~~and fixed operating and maintenance costs included~~ in the capital budgeting model for the FCA reflected in the table in Section A.21.1.1 ~~above~~ will be adjusted by the relevant multiplier.

(~~4~~3) The energy and ancillary services offset values for gas ~~each~~ technology types in the capital budgeting model shall be adjusted by inputting to the capital budgeting model the ~~most recent~~ Henry Hub natural gas futures prices, the Algonquin Citygates Basis natural gas futures prices and the Massachusetts Hub Day-Ahead Peak ~~On-Peak~~ electricity prices, as published by ICE for the first five trading days in February, for each ~~the~~ month~~s in the Capacity Commitment Period beginning June 1~~ of the Capacity Commitment Period to which the updated value will apply~~, 2021, as published by ICE~~.

The energy and ancillary services offset values for non-gas technology types in the capital budgeting model shall be adjusted by inputting to the capital budgeting model the Massachusetts Hub Day-Ahead Peak electricity prices, as published by ICE for the first five trading days in February, for each month of the Capacity Commitment Period to which the updated value will apply.

(~~5~~4) Renewable energy credit values in the capital budgeting model shall be updated based on the first ~~most recent~~ MA Class 1 REC prices published in February for the five vintages closest to the first year of the Capacity Commitment Period associated with the relevant FCA as published by SNL Financial.

(5) The bonus tax depreciation adjustment included in the financial model for the Offer Review Trigger Prices (which is 40 percent for the Capacity Commitment Period beginning on June 1, 2025), shall be 20 percent for the Capacity Commitment Period beginning on June 1, 2026, and zero for the Capacity Commitment Period beginning on June 1, 2027 and thereafter.

(6) The investment tax credit adjustment included in the financial model for the Offer Review Trigger Prices for the photovoltaic solar ~~and combined photovoltaic solar and energy storage device – lithium ion battery~~ Generating Capacity Resource technology types (which is 26 percent for the Capacity Commitment Period beginning on June 1, 2025), shall be 22 percent for the Capacity Commitment Period beginning on June 1, 2026, and 10 percent for the Capacity Commitment Period beginning on June 1, 2027 and thereafter.

Commented [A3]: Added all of sub-section (6) for the February 2021 MC; striking the "redlined out" language for the March 2021 PC.

(~~6~~7) The capital budgeting model and the Offer Review Trigger Prices adjusted pursuant to this subsection (e) will be published on the ISO's web site.

(~~7~~8) If any of the values required for the calculations described in this subsection (e) are unavailable, then comparable values, prices or sources shall be used.

III.A.21.2. New Resource Offer Floor Prices and Offer Prices.

For every new resource participating in a Forward Capacity Auction, the Internal Market Monitor shall determine a New Resource Offer Floor Price or offer prices, as described in this Section III.A.21.2.

(a) For a Lead Market Participant with a New Capacity Resource that does not submit a request to submit offers in the Forward Capacity Auction at prices that are below the relevant Offer Review Trigger Price as described in Sections III.13.1.1.2.2.3, III.13.1.3.5 or III.13.1.4.1.1.2.8, the New Resource Offer Floor Price shall be calculated as follows:

For a New Import Capacity Resource (other than a New Import Capacity Resource that is (i) backed by a single new External Resource and that is associated with an investment in transmission that increases New England's import capability or (ii) associated with an Elective Transmission Upgrade) the New Resource Offer Floor Price shall be $0.00/kW-month.

For a New Generating Capacity Resource, New Import Capacity Resource that is backed by a single new External Resource and that is associated with an investment in transmission that increases New England's import capability, New Import Capacity Resource that is associated with an Elective Transmission Upgrade, and New Demand Capacity Resource, the New Resource Offer Floor Price shall be equal to the applicable Offer Review Trigger Price.

A resource having a New Resource Offer Floor Price higher than the Forward Capacity Auction Starting Price shall not be included in the Forward Capacity Auction.

(b) For a Lead Market Participant with a New Capacity Resource that does submit a request to submit offers in the Forward Capacity Auction at prices that are below the relevant Offer Review Trigger Price as described in Sections III.13.1.1.2.2.3, III.13.1.3.5 and III.13.1.4.1.1.2.8, the resource's New Resource Offer Floor Price and offer prices in the case of a New Import Capacity Resource (other than a New Import Capacity Resource that is backed by a single new External Resource and that is associated with an investment in transmission that increases New England's import capability or a New Import Capacity Resource that is associated with an Elective Transmission Upgrade) shall be calculated as follows:

> For a New Import Capacity Resource that is subject to the pivotal supplier test in Section III.A.23 and is found not to be associated with a pivotal supplier as determined pursuant to Section III.A.23, the resource's New Resource Offer Floor Price and offer prices shall be equal to the lower of (i) the requested offer price submitted to the ISO as described in Sections III.13.1.1.2.2.3 and III.13.1.3.5; or (ii) the price revised pursuant to Section III.13.1.3.5.7.

For any other New Capacity Resource, the Internal Market Monitor shall enter all relevant resource costs and non-capacity revenue data, as well as assumptions regarding depreciation, taxes, and discount rate into the capital budgeting model used to develop the relevant Offer Review Trigger Price and shall calculate the break-even contribution required from the Forward Capacity Market to yield a discounted cash flow with a net present value of zero for the project. The Internal Market Monitor shall compare the requested offer price to this capacity price estimate and the resource's New Resource Offer Floor Price and offer prices shall be determined as follows:

> (i) The Internal Market Monitor will exclude any out-of-market revenue sources from the cash flows used to evaluate the requested offer price. Out-of-market revenues are any revenues that are: (a) not tradable throughout the New England Control Area or that are restricted to resources within a particular state or other geographic sub-region; or (b) not available to all resources of the same physical type within the New England Control Area, regardless of the resource owner. Expected revenues associated with economic development incentives that are offered broadly by state or local government and that are not expressly intended to reduce prices in the Forward Capacity Market are not considered out-of-market revenues for this purpose. In submitting its requested offer price, the Project Sponsor shall indicate whether and which project cash flows are

supported by a regulated rate, charge, or other regulated cost recovery mechanism. If the project is supported by a regulated rate, charge, or other regulated cost recovery mechanism, then that rate will be replaced with the Internal Market Monitor estimate of energy revenues. Where possible, the Internal Market Monitor will use like-unit historical production, revenue, and fuel cost data. Where such information is not available (e.g., there is no resource of that type in service), the Internal Market Monitor will use a forecast provided by a credible third party source. The Internal Market Monitor will review capital costs, discount rates, depreciation and tax treatment to ensure that it is consistent with overall market conditions. Any assumptions that are clearly inconsistent with prevailing market conditions will be adjusted.

(ii) For a New Demand Capacity Resource, the resource's costs shall include all expenses, including incentive payments, equipment costs, marketing and selling and administrative and general costs incurred to acquire and/or develop the Demand Capacity Resource. Revenues shall include all non-capacity payments expected from the ISO-administered markets made for services delivered from the associated Demand Response Resource, and expected costs avoided by the associated end-use customer as a direct result of the installation or implementation of the associated Asset(s).

(iii) For a New Capacity Resource that has achieved commercial operation prior to the New Capacity Qualification Deadline for the Forward Capacity Auction in which it seeks to participate, the relevant capital costs to be entered into the capital budgeting model will be the undepreciated original capital costs adjusted for inflation. For any such resource, the prevailing market conditions will be those that were in place at the time of the decision to construct the resource.

(iv) Sufficient documentation and information must be included in the resource's qualification package to allow the Internal Market Monitor to make the determinations described in this subsection (b). Such documentation should include all relevant financial estimates and cost projections for the project, including the project's pro-forma financing support data. For a New Import Capacity Resource, such documentation should also include the expected costs of purchasing power outside the New England Control Area (including transaction costs and supported by forward power price index values or a power price forecast for the applicable Capacity Commitment Period), expected transmission costs outside the New England Control Area, and expected transmission costs associated with importing to the New England Control

Area, and may also include reasonable opportunity costs and risk adjustments. For a new capacity resource that has achieved commercial operation prior to the New Capacity Qualification Deadline, such documentation should also include all relevant financial data of actual incurred capital costs, actual operating costs, and actual revenues since the date of commercial operation. If the supporting documentation and information required by this subsection (b) is deficient, the Internal Market Monitor, at its sole discretion, may consult with the Project Sponsor to gather further information as necessary to complete its analysis. If after consultation, the Project Sponsor does not provide sufficient documentation and information for the Internal Market Monitor to complete its analysis, then the resource's New Resource Offer Floor Price shall be equal to the Offer Review Trigger Price.

(v) If the Internal Market Monitor determines that the requested offer prices are consistent with the Internal Market Monitor's capacity price estimate, then the resource's New Resource Offer Floor Price shall be equal to the requested offer price, subject to the provisions of subsection (vii) concerning New Import Capacity Resources.

(vi) If the Internal Market Monitor determines that the requested offer prices are not consistent with the Internal Market Monitor's capacity price estimate, then the resource's offer prices shall be set to a level that is consistent with the capacity price estimate, as determined by the Internal Market Monitor. Any such determination will be explained in the resource's qualification determination notification and will be filed with the Commission as part of the filing described in Section III.13.8.1(c), subject to the provisions of subsection (vii) concerning New Import Capacity Resources.

(vii) For New Import Capacity Resources that have been found to be associated with a pivotal supplier as determined pursuant to Section III.A.23, if the supplier elects to revise the requested offer prices pursuant to Section III.13.1.3.5.7 to values that are below the Internal Market Monitor's capacity price estimate established pursuant to subsection (v) or (vi), then the resource's offer prices shall be equal to the revised offer prices.

(c) For a new capacity resource composed of assets having different technology types ~~and the combination of the technology types is not specified in the tables in Section III.A.21.1.1,~~ the Offer Review Trigger Price shall be the weighted average of the Offer Review Trigger Prices of the asset

Commented [A4]: Added this language for the February 2021 MC; striking this language for the March 2021 PC.

technology types of the assets that comprise the resource, based on the expected capacity contribution from each asset technology type. Sufficient documentation must be included in the resource's qualification package to permit the Internal Market Monitor to determine the weighted average Offer Review Trigger Price.

***

ISO new england

memo

To: NEPOOL Markets Committee (MC)

From: Deborah Cooke, Principal Analyst

Date: March 15, 2021

Subject: Updates to the Offer Review Trigger Prices (WMPP ID: 139)

The ISO is requesting a vote on Tariff revisions to update its proposed Offer Review Trigger Prices (ORTPs) for use in the sixteenth Forward Capacity Auction (FCA 16) for the 2025-26 Capacity Commitment Period. Since the February 24, 2021 MC meeting, the ISO has incorporated three revisions to its ORTP proposal: (1) the removal of the proposed co-located ORTPs for both Generating Capacity Resources and Demand Capacity Resource categories as well as associated Tariff language on the use of a specified ORTP versus a weighted average approach, (2) a modification to the Photovoltaic Solar Generating Capacity Resource ORTP associated with a correction to the discounted cash flow (DCF) model, and (3) modifications to the ORTP values to account for the updated Performance Payment Rate (PPR) associated with the corrected Cost of New Entry (CONE) value.

By way of background, the ISO's March 2, 2021 PC memo recognized the concerns raised by stakeholders regarding the vetting of various inputs and assumptions used in developing the ORTP for the Combined Photovoltaic Solar and Energy Storage Device – Lithium Ion Battery ("co-located ORTP"). The ISO therefore removed the co-located ORTPs (in both the Generating Capacity Resources and Demand Capacity Resource categories) from its proposal that had been voted at the February MC meeting. The related language proposed by the ISO for the February MC on the application of a specified ORTP value or the weighted-average approach to calculate an ORTP for multiple technology types was also removed.

At the March 4, 2021 NEPOOL Participants Committee (PC) meeting, the ISO further explained it was investigating a potential issue in the DCF model used for the calculation of ORTPs, which was first raised by stakeholders at the February 24, 2021 MC meeting. Since the PC meeting, the ISO and its consultant, Concentric Energy Advisors, have discovered and addressed an error in the DCF model relating to the modeling of the Investment Tax Credit (ITC) associated with the Consolidated Appropriations Act[1] for purposes of determining depreciation expenses. In addressing this error, the ISO's proposed ORTP for Photovoltaic Solar Generating Capacity Resources had to be revised.[2]

[1] The Consolidated Appropriations Act, signed into law on December 27, 2020, provides an extension of the beginning of construction deadline for the ITC for solar and adds a new ITC category for offshore wind.
[2] While the ITC also applies to the offshore wind technology, the change needed in the DCF model did not impact the ISO's proposed ORTP value, which remains above the FCA Starting Price.

In addition, on March 11, 2021, we notified the MC that in responding to a FERC deficiency order on the filed FCA 16 CONE values, an error was identified regarding the location of the reference unit for the CONE calculation. Since that time, the ISO has updated its FCA 16 CONE calculation to account for the corrected location of the reference unit from New London County to Tolland County, correspondingly updated the PPR to account for the corrected CONE value, and updated the FCA 16 ORTP values to account for the revised PPR.

For convenience, the following table provides the ISO's proposed values with the March updates marked in redline.

Table 1 – Updated ISO-NE ORTPs

Generating Capacity Resources		
Technology Type	**February 24, 2021 ORTP Proposal ($/kW-month)**	**March 15, 2021 ORTP Proposal ($/kW-month)**
Simple Cycle Combustion Turbine	$5.366	$5.355
Combined Cycle Gas Turbine	$9.819	$9.811
On-Shore Wind	$0.000	$0.000
Off-Shore Wind	N/A	N/A
Energy Storage Device – Lithium Ion Battery	$2.923	$2.912
Photovoltaic Solar	$0.000	$1.381
Combined Photovoltaic Solar and Energy Storage Device – Lithium Ion Battery	$6.964	N/A

Demand Capacity Resources		
Technology Type	**February 24, 2021 ORTP Proposal ($/kW-month)**	**March 15, 2021 ORTP Proposal ($/kW-month)**
Load Management (Commercial / Industrial)	$0.761	$0.750
Previously Installed Distributed Generation	$0.761	$0.750
New Distributed Generation	Based on generation technology type	Based on generation technology type
On-Peak Solar	$5.425	$5.414
Combined Photovoltaic Solar and Energy Storage Device – Lithium Ion Battery	$7.376	N/A
Energy Efficiency	$0.000	$0.000

ISO-NE NET CONE & ORTP ANALYSIS:

UPDATES TO FINAL ORTP VALUES

MARCH 19, 2021

ITC Updates for Solar ORTP

- In response to ISO & CEA's proposal to update ITC assumptions in accordance with the change in tax law as of December 2020, stakeholders raised new issues related to ITC modeling
- Depreciable basis should be reduced by ½ the value of the ITC
- This creates undepreciated plant, which should be written off as terminal value
- Impact to Solar ORTP
  - Before (February 2021): $0.000
  - After (March 2021): $1.381 (includes change to PPR)

Final ORTP Values Reflecting ITC and Updated PPR

Technology	Combined Cycle	Combustion Turbine	Onshore Wind	Battery	Solar	Energy Efficiency	DR - On-Peak Solar	Load Mgmt C&I/ Prev Installed DG
February 2021	$9.819	$5.366	$0.000	$2.923	$0.000	$0.000	$5.425	$0.761
March 2021	$9.811	$5.355	$0.000	$2.912	$1.381	$0.000	$5.414	$0.750

ORTP calculation for offshore wind remains above the auction starting price