



July 22, 2024

BY ELECTRONIC FILING

The Honorable Debbie-Anne A. Reese, Acting Secretary
Federal Energy Regulatory Commission
888 First Street, NE
Washington, DC 20426

**Re: *ISO New England Inc., Filing to Comply with May 2024 Order Regarding
Order No. 2222 Compliance, Docket No. ER22-983-_____***

Dear Acting Secretary Reese:

Pursuant to Rule 1907¹ of the Federal Energy Regulatory Commission's ("Commission") Rules of Practice and Procedure, ISO New England Inc. (the "ISO" or "ISO-NE")² hereby respectfully submits this transmittal letter and revisions to Section III of the Tariff to comply with the directives in the Commission's order issued on May 23, 2024 in the above-captioned proceeding.³ The May Rehearing Order directed the ISO to make further Tariff revisions to the telemetering requirements for Distributed Energy Resource ("DER") Aggregations ("DERAs") participating as Alternative Technology Regulation Resources ("ATRRs"),⁴ under the ISO's Order No. 2222 participation model.⁵ The instant filing addresses the May 2024 Rehearing Order's

¹ 18 CFR § 385.1907.

² Capitalized terms used but not defined in this response are intended to have the meaning given to such terms in the ISO New England Inc. Transmission, Markets and Services Tariff ("Tariff").

³ *ISO New England Inc.*, 187 FERC ¶ 61,100 (2024) ("May 2024 Rehearing Order"); *see also ISO New England Inc. and New England Power Pool Participants Committee*, Tariff Filing to Allow Participation of DER Aggregations in New England Markets, Docket No. ER22-983-000 (Feb. 2, 2022) ("February 2022 Compliance Filing").

⁴ *See* May 2024 Rehearing Order at PP 36-37.

⁵ *Participation of Distributed Energy Resource Aggregations in Markets Operated by Regional Transmission Organizations and Independent System Operators*, Order No. 2222, 172 FERC ¶ 61,247 (2020), *order on reh'g*, Order No. 2222-A, 174 FERC ¶ 61,197 (2021), *order on reh'g*, Order No. 2222-B, 175 FERC ¶ 61,227 (2021).

requirement related to the inclusion of the submetering requirements for ATRRs in New England Markets (hereinafter “ATRR Submetering Revisions”).⁶ The ISO respectfully requests that the Commission accept the ATRR Submetering Revisions filed herein effective November 1, 2026 to coincide with the effective date of the rules that the Commission has previously accepted for DERA participation in the energy and ancillary services markets.⁷

I. DESCRIPTION OF THE FILING PARTY AND COMMUNICATIONS

The ISO is the private, non-profit entity that serves as the Regional Transmission Organization (“RTO”) for New England. The ISO operates the New England bulk power system and administers New England’s organized wholesale electricity market pursuant to the ISO Tariff and operating agreements with transmission owners. In its capacity as an RTO, the ISO has the responsibility to protect the short-term reliability of the New England Control Area and to operate the system according to reliability standards established by the Northeast Power Coordinating Council (“NPCC”) and the North American Electric Reliability Corporation (“NERC”).

All correspondence and communications in this proceeding should be addressed to the undersigned as follows:

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II. BACKGROUND

On September 17, 2020, the Commission issued Order No. 2222, directing Regional Transmission Organizations and Independent System Operators (“RTOs/ISOs”) to remove barriers to the participation of DERAs in the wholesale markets they operate. In Order No. 2222, the Commission found that existing RTO/ISO market rules were unjust and unreasonable “in light of barriers that they present to the participation of DERAs in RTO/ISO markets, which reduce competition and fail to ensure just and reasonable rates.”⁸ To address this, the Commission modified its regulations to require that RTOs/ISOs revise their tariffs to facilitate the participation of DERAs in wholesale markets. Specifically, RTOs/ISOs were required to establish DER

⁶ See May 2024 Rehearing Order at Ordering Paragraph B.

⁷ *ISO New England Inc.*, 182 FERC ¶ 61,137, at P 15 (2023) (“March 2023 Compliance Order”).

⁸ Order No. 2222 at P 1.

Aggregators as a type of Market Participant that can register DERAs under one or more participation models that accommodate the physical and operational characteristics of each DERA, and allow DERAs to provide all the services that they are technically capable of providing.

On February 2, 2022, the ISO, joined by the New England Power Pool Participants Committee (“NEPOOL”) and the Participating Transmission Owners (“PTOs”), submitted the February 2022 Compliance Filing, which included modifications to the Tariff that established a pathway for DERAs to participate in the New England Markets. The Tariff revisions achieved this by: creating new, and modifying existing, market participation models for DERA use; establishing eligibility requirements for DERA participation (including size, location, and information and data requirements); setting bidding parameters for DERAs; requiring metering and telemetry arrangements for DERAs and individual DERs; and providing for coordination with distribution utilities and relevant electric retail regulatory authorities (“RERRAs”) for DERA/DER registration, operations, and dispute resolution purposes.⁹

On March 1, 2023, the Commission determined that the Compliance Filing partially complied with the requirements of Order No. 2222 and accepted the majority of the proposed Tariff revisions, subject to further compliance filings to be submitted within 30, 60, and 180 days of the March 2023 Compliance Order.¹⁰ Of particular relevance to the instant filing, the Commission required ISO-NE to “discuss ISO-NE’s submetering requirements for DERAs participating as Alternative Technology Regulation Resources” and “to include citations to the manual or Tariff provisions establishing these submetering requirements.”¹¹

On May 9, 2023, the ISO, filed further changes in response to the March 2023 Compliance Order.¹² In the May 2023 Compliance Filing, the ISO stated that the requirements for the submetering of ATTRs, including DERAs participating as ATTRs, were contained in Section VI.A.1.(e) of ISO-NE’s Operating Procedure No. 18, which states:

ATTR MWs (NetPOI) shall be telemetered. ATTR telemetry shall be located at the Point of Interconnection(s) or, for ATTRs located behind Retail Delivery Point(s), telemetry shall be located at the Retail Delivery Point(s). Any exception

⁹ See generally February 2022 Compliance Filing at 8-42.

¹⁰ See March 2023 Compliance Order, Ordering Clause (B). Subsequent to the issuance of the March 2023 Compliance Order, NEPOOL requested a limited extension of time, to May 9, 2023, for the submission of the 60-day further compliance filing to allow for consideration of further revisions through the NEPOOL stakeholder process. The extension was granted by Notice issued on April 11, 2023.

¹¹ March 2023 Compliance Order at P 168.

¹² *ISO New England Inc.*, Revisions to ISO New England Inc. Transmission, Markets and Services Tariff in Further Compliance with Order No. 2222 and Request for Extension of Compliance Deadline, Docket No. ER22-983-004. (May 9, 2023) (“May 2023 Compliance Filing”).

to this locational requirement is limited to non-aggregated ATRRs and is subject to approval by the ISO.¹³

The ISO also explained that sub-telemetry can only be accommodated for single-facility ATRRs and subjecting sub-telemetry proposals to ISO approval is needed to ensure that the ISO can review and detect issues with facility-specific configurations in which other devices at the facility may counteract the Regulation Service being provided.¹⁴

On November 2, 2023, the Commission issued an order finding, based on this explanation, that the May 2023 Compliance Filing complied with the requirements in Order No. 2022 and the March 2023 Compliance Order.¹⁵

Advanced Energy United sought rehearing of the November 2023 Order on the basis that Operating Procedure No. 18 “does not actually contain the necessary technical details for DERAs to evaluate the viability of Alternative Technology Regulation Resource submetering.”¹⁶

In the May 2024 Rehearing Order, the Commission set aside its finding in the November 2023 Order, and found that: “ISO-NE’s basic description of its metering practices for DERAs is incomplete because its Tariff does not include submetering requirements for DERAs participating as submetered Alternative Technology Regulation Resources.”¹⁷ The Commission further found that “these submetering requirements significantly affect the terms and conditions of the participation of distributed energy resource aggregations in RTO/ISO markets” and, therefore, “direct[ed] ISO-NE to file . . . a further compliance filing to revise ISO-NE’s Tariff to specify its submetering requirement for DER Aggregations’ participation as submetered Alternative Technology Regulation Resources.”¹⁸ The Commission also required that the ISO explain why these requirements “are just and reasonable” as applied to DERAs participating as ATRRs and “do not pose an unnecessary and undue barrier to *individual distributed energy resources joining a distributed energy resource aggregation*.”¹⁹

As discussed in detail below, the ISO is proposing a further revision to Section III.14.2(c) of the Tariff specifying these requirements.

¹³ See May 2023 Compliance Filing at 24. Note that the ISO had previously indicated this language was in Section V.A.1.(e) of Operating Procedure No. 18, but it is in fact in Section VI.A.1.(e) of the procedure.

¹⁴ May 2023 Compliance Filing Transmittal Letter at 25.

¹⁵ November 2023 Order, 185 FERC ¶ 61,095 at P 80 (2023) (“November 2023 Order”).

¹⁶ *Advanced Energy United*, Request for Rehearing, Docket No. ER22-983-004 (Dec. 4, 2023) at 12.

¹⁷ May 2024 Rehearing Order at P 33.

¹⁸ *Id.* at P 36.

¹⁹ *Id.* at P 37. (emphasis added)

III. DESCRIPTION OF THE ATRR SUBMETERING REVISIONS

The May 2024 Rehearing Order requires that the ISO submit Tariff revisions specifying the submetering requirements for DERAs participating as ATRRs. Consistent with this directive, the ISO proposes to revise Section III.14.2(c) of the Tariff to add new subsection (iv) as follows:

- iv. ATRR telemetry shall be located at the Point of Interconnection(s) or, for ATRRs located behind Retail Delivery Point(s), telemetry shall be located at the Retail Delivery Point(s). Any exception to this locational requirement is limited to non-aggregated ATRRs and is subject to the Market Participant with the Regulation Resource demonstrating to the ISO that:
1. there are no facility-specific configuration issues that would result in other devices at the facility counteracting the Regulation being provided;
 2. all the other devices at the facility function independently from the Regulation device(s); and
 3. in the case of Distributed Energy Resource Aggregations participating as an ATRR, confirm that the aggregation is limited to a single facility and that the requirements of this Section III.14.2(c)(iv)(1) and (2) are met.

The ISO submits that the proposed ATRR Submetering Revisions comply with the May 2024 Order's directives in two ways. First, the revisions move the current requirements of Operating Procedure No. 18 into Section III.14.2 of the Tariff. Second, the revisions include the additional technical screens that the ISO applies to determine whether a particular ATRR may be submetered. The ISO proposes no changes to the current review process for a facility seeking to utilize device-level telemetry of an ATRR and proposes to treat DERAs in the same manner as all other ATRRs.

Allowing sub-telemetering only for single-facility ATRRs and subjecting the sub-telemetering proposals to ISO approval is critical to ensure that the ISO can review and detect issues with facility-specific configurations in which other devices at the facility may counteract the Regulation being provided. Note, however, that while the ISO's April 20, 2022 Answer in this docket indicated that the ISO would seek to receive both device level and retail delivery point metering for ATRRs that met the submetering criteria,²⁰ since that time, the ISO has found that receiving revenue-quality meter data from both the device providing Regulation Service and at the Retail Delivery Point does not provide sufficient granularity to determine whether Regulation Service was delivered to the electric system. Accordingly, the ISO will not require such data.

²⁰ *ISO New England*, Motion for Leave to Answer and Answer of ISO New England Inc. at 27-29, Docket No. ER22-983-000 (Apr. 20, 2022).

These restrictions are necessary to ensure that Regulation Service reaches the grid. For example, a battery at a facility may be providing Regulation Service (measured using device-level telemetry) in which the battery is dispatched to increase its charging rate (*i.e.*, its load). But if the facility has energy management systems designed to limit its demand to avoid retail demand charges, the energy management system may reduce the load of other devices at the facility when the battery increases its charging rate, which counteracts the Regulation Service being provided by the battery. Since these interactions are facility-specific, detailed ISO review will be required of any facility providing Regulation Service using device-level telemetry. Such a review would be administratively infeasible for aggregations consisting of multiple facilities with different types of devices potentially co-located at each facility. Therefore, it is necessary to limit ATRR submetering to non-aggregated facilities.

The ATRR Submetering Revisions do not, however serve to prevent individual DERs from providing Regulation Service. Individual DERs of 100 kW or more can provide device level telemetry provided they can meet the requirements to participate as a single resource DERA, and smaller DERs can provide Regulation Service on an aggregated basis with telemetering provided at each RDP within the DERA, as is the case for aggregated ATRRs currently participating in ISO-NE's markets. The ATRR Submetering Revisions are therefore just and reasonable, and consistent with Order No. 2222 and should be accepted by the Commission without further modification.

IV. STAKEHOLDER PROCESS

The ATRR Submetering Revisions were reviewed and considered by the NEPOOL Markets Committee in July 2024. At its July 9-10, 2024 meeting, the Markets Committee, based on a show of hands, voted in favor of recommending that the Participants Committee support the ATRR Submetering Revisions.²¹ Due to the compliance deadline, the Participants Committee has not taken action, but the Participants Committee expects to consider the revisions at its August 1 meeting as part of its Consent Agenda.²² NEPOOL has informed the ISO that it will file comments in this proceeding after that meeting to explain the Participant Committee's vote outcome.

²¹ The Markets Committee supported the ATRR Submetering Revisions with one abstention in the Generation Sector.

²² The Consent Agenda for a Participants Committee meeting, similar to the Consent Agenda for a Commission open meeting, is a group of actions (each recommended by a Technical Committee or subgroup established by the Participants Committee) to be taken by the Participants Committee through approval of a single motion at a meeting. Although voted as a single motion, all recommendations voted on as part of the Consent Agenda are deemed to have been voted on individually and independently.

V. REQUESTED EFFECTIVE DATE

The ISO requests that the Commission accept the ATRR Submetering Revisions effective November 1, 2026, consistent with the effective date of the previously accepted energy and ancillary service market rules for DERAs.

VI. ADDITIONAL SUPPORTING INFORMATION

Section 35.13 of the Commission's regulations generally requires public utilities to file certain cost and other information related to an examination of traditional cost-of service rates. However, the ISO Tariff changes submitted herewith do not modify a traditional "rate." Therefore, to the extent necessary, the Filing Parties request waiver of Section 35.13 of the Commission's regulations.²³ Notwithstanding this request for waiver, the Filing Parties submit the following additional information in substantial compliance with relevant provisions of Section 35.13 of the Commission's regulations:

35.13(b)(1) – Materials included herewith are as follows:

- This transmittal letter;
- Blacklined Tariff sections reflecting the ATRR Submetering Revisions discussed in this filing;
- Clean revised Tariff sections reflecting the ATRR Submetering Revisions discussed in this filing; and
- List of governors and utility regulatory agencies in Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island and Vermont to which a copy of this filing is being sent electronically.

35.13(b)(2) – As noted above, the ISO requests that this filing become effective as of November 1, 2026.

35.13(b)(3) – Pursuant to Section 17.11(e) of the Participants Agreement, Governance Participants are being served electronically rather than by paper copy. The names and addresses of the Governance Participants are posted on the ISO's website at <https://www.iso-ne.com/participate/participant-asset-listings/directory?id=1&type=committee>. An electronic copy of this transmittal letter and the accompanying materials has also been sent to the governors and electric utility regulatory agencies for the six New England states that comprise the New England Control Area, and to NECPUC. The names and addresses of these governors and regulatory agencies are shown in the above-referenced list, which is included in this filing. In accordance with Commission rules and practice, there is no need for the Governance Participants

²³ 18 C.F.R. § 35.13.

or the entities identified in the above-referenced list to be included on the Commission's official service list in the captioned proceeding unless such entities become intervenors in this proceeding.

35.13(b)(4) – A description of the materials submitted pursuant to this filing is contained in this Section VI.

35.13(b)(5) – The reasons for this filing are discussed in Sections II and III of this transmittal letter.

35.13(b)(6) – As explained above, the Tariff revisions for which the ISO holds Section 205 rights reflect the results of the Participant Processes required by the Participants Agreement and reflect the support of the Participants Committee.

35.13(b)(7) – The Filing Parties have no knowledge of any relevant expenses or costs of service that have been alleged or judged in any administrative or judicial proceeding to be illegal, duplicative, or unnecessary costs that are demonstrably the product of discriminatory employment practices.

35.13(c)(1) – The Tariff changes herein do not modify a traditional "rate." The statement required under this Commission regulation is not applicable to this filing.

35.13(c)(2) – The ISO does not provide services under other rate schedules that are similar to the wholesale, resale and transmission services it provides under the ISO Tariff.

35.13(c)(3) – No specifically assignable facilities have been or will be installed or modified in connection with the revision submitted herein.

VII. CONCLUSION

For the foregoing reasons, the ISO respectfully requests that the Commission accept the ATRR Submetering Revisions, as fully compliant with the May 2024 Rehearing Order, to become effective as of November 1, 2026.

Respectfully submitted,

By: /s/ Graham Jesmer

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CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing document upon each person designated on the official service list compiled by the Secretary in this proceeding.

Dated at Holyoke, Massachusetts this 22nd day of July, 2024.

/s/ Julie Horgan

Julie Horgan

eTariff Coordinator

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III.14 Regulation Market.

For purposes of this Section III.14, the settlement interval is every five minutes. If a dollar-per-MW-hour value is applied in a calculation where the interval of the value produced in that calculation is less than an hour, then for purposes of that calculation the dollar-per-MW-hour value is divided by the number of intervals in the hour.

III.14.1 Regulation Market System Requirements.

The Regulation Capacity Requirement and Regulation Service Requirement are determined based on historical control performance and compliance with NERC and NPCC control standards. The Regulation Capacity Requirement and Regulation Service Requirement will be published on the ISO's website.

During abnormal system conditions, the ISO may deviate from the Regulation Capacity Requirement or Regulation Service Requirement to maintain system reliability.

III.14.2 Regulation Market Eligibility.

A Regulation Resource must satisfy the following conditions:

- (a) Physical Parameters.
 - (i) Automatic Response Rate.
 - 1. The minimum Automatic Response Rate is 1 MW/minute.
 - (ii) Regulation Capacity.
 - 1. The minimum Regulation Capacity of a Generator Asset that is not part of an Electric Storage Facility will be determined based on the Generator Asset's size and operating characteristics and must be greater than or equal to: (a) 5 MW, and; (b) two times the Generator Asset's AGC SetPoint Deadband plus 1 MW.
 - 2. The minimum Regulation Capacity of an Alternative Technology Regulation Resource and a Generator Asset associated with a Binary Storage Facility is 0.1 MW.
- (b) Regulation Registration and Technical Requirements.

A facility capable of providing Regulation:

 - (i) shall be located within the New England Control Area;
 - (ii) shall meet the requirements specified in ISO New England Operating Procedure No. 14 and ISO New England Operating Procedure No. 18;

- (iii) shall not be registered as both an ATRR and a dispatchable Generator Asset, nor as both an ATRR and a DARD, unless it is a Continuous Storage Facility (however, an ATRR may be located at the same facility as either or both a Generator Asset and a DARD if the Generator Asset and DARD are separately metered and reported);
 - (iv) may provide Regulation only as an ATRR, and not as another Resource type, if registered as an ATRR;
 - (v) shall be capable of receiving and following AGC SetPoints sent electronically at four-second intervals;
 - (vi) shall have a demonstrated capability to reliably follow Dispatch Instructions, consistent with normal operating characteristics and physical offer parameters, including Regulation Capacity and Automatic Response Rate. Resources without an operational history of providing Regulation must establish and demonstrate this capability as follows:
 1. Any Resource with less than one-hour sustainability must participate in the Regulation test environment specified in Section III.14.9. (For a storage facility, sustainability is measured based on full rate of charge/discharge starting from a half-full status.)
 2. All Resources must satisfy a minimum responsiveness test that demonstrates that a Resource can follow AGC SetPoints.
- (c) Aggregation.
- (i) An ATRR that is not part of a Continuous Storage Facility may be composed of an aggregation of facilities of less than 1 MW in size. All facilities in an ATRR must be located in the same DRR Aggregation Zone. Each of the facilities that form the aggregated ATRR must meet the Regulation Market eligibility requirements specified in this Section III.14.2 other than MW size.
 - (ii) A single AGC SetPoint will be sent every AGC cycle to the aggregated ATRR. A Market Participant with an aggregated ATRR is responsible for management and control of the component facilities to ensure an accurate aggregate response to the AGC SetPoint.
 - (iii) The component facilities must be metered and recorded in a manner that allows real-time performance to be measured against Dispatch Instructions and provides for the retention of the recorded information for purposes of verification, accounting for any performance offsets from other loads, generation or devices under the direct or indirect control of the

aggregator as specified in ISO New England Operating Procedure No. 18, Metering and Telemetry Criteria.

(iv) ATRR telemetry shall be located at the Point of Interconnection(s) or, for ATRRs located behind Retail Delivery Point(s), telemetry shall be located at the Retail Delivery Point(s). Any exception to this locational requirement is limited to non-aggregated ATRRs and is subject to the Market Participant with the Regulation Resource demonstrating to the ISO that:

1. there are no facility-specific configuration issues that would result in other devices at the facility counteracting the Regulation being provided;
2. all the other devices at the facility function independently from the Regulation device(s); and
3. in the case of Distributed Energy Resource Aggregations participating as an ATRR, confirm that the aggregation is limited to a single facility and that the requirements of this Section III.14.2(c)(iv)(1) and (2) are met.

III.14.3 Regulation Market Offers.

(a) A Market Participant with a Regulation Resource must submit a Regulation Market Supply Offer to provide Regulation. The Regulation Market Supply Offer may specify offer parameters that vary on an hourly basis and shall remain effective until cancelled or replaced by the Market Participant. A Market Participant may modify Regulation Market Supply Offer parameters for a given hour up to five minutes before the start of the hour. Regulation Resource availability must be updated throughout the Operating Day to reflect the actual operating capability of the resource. The Regulation Market Supply Offer of a Regulation Resource must specify the following offer parameters:

- (i) Regulation Resource status (available/unavailable)
- (ii) Regulation High Limit

For a Generator Asset, the Regulation High Limit must be less than or equal to the Generator Asset's Economic Maximum Limit. For a Continuous Storage ATRR, the Regulation High Limit must be positive and equal to the Regulation Low Limit multiplied by negative one, with an allowance for round-trip efficiency loss.

(iii) Regulation Low Limit

For a Generator Asset, the Regulation Low Limit must be greater than or equal to the Generator Asset's Economic Minimum Limit. For a Continuous Storage ATRR, the Regulation Low Limit must be negative and equal to the Regulation High Limit multiplied by negative one, with an allowance for round-trip efficiency loss.

(iv) Automatic Response Rate (MW/minute)

(v) Regulation Capacity Offer (\$/MW)

The Regulation Capacity Offer price must be greater than or equal to \$0/MW and may not exceed \$100/MW. A Market Participant may include estimated inter-temporal opportunity costs in its Regulation Capacity Offer price.

(vi) Regulation Service Offer (\$/MW of instructed movement)

The Regulation Service Offer price must be greater than or equal to \$0/MW of instructed movement and may not exceed \$10/MW of instructed movement.

(b) Additional Constraints on Offer Parameters.

Regulation offer parameters that exceed recent historical performance for Regulation Capacity or Automatic Response Rate will be constrained to reflect values consistent with the demonstrated performance of the Resource. The Resource of a Market Participant that submits offer parameters inconsistent with demonstrated performance will be disqualified from selection to provide Regulation until the submitted parameters are modified to be consistent with demonstrated performance.

(c) Regulation Capacity Performance Adjustment.

- (i) Regulation Capacity offers will be evaluated in the Regulation selection process using a capacity value adjusted to reflect historical performance. The adjusted value will account for the Resource's demonstrated ability to follow the AGC dispatch signal over an hour at the offered Regulation Capacity level. The percentage adjustment will be reevaluated periodically to account for changes in the performance of the Resource. Resources with no historical performance record will be evaluated pursuant to the regulation resource test environment specified in Section III.14.9.
- (ii) The adjusted Regulation Capacity value will be used for the purpose of selecting Resources (described in Section III.14.5) and for determining Regulation Capacity compensation (described in Section III.14.8), but will not be used in Regulation dispatch (described in Section III.14.6).

III.14.4

[Reserved]

III.14.5

Regulation Market Resource Selection.

Resources are selected each hour (or more frequently as needed) to provide Regulation from eligible and available Resources to meet the Regulation Capacity Requirement and Regulation Service Requirement at the least cost based on: Regulation Capacity Offers, Regulation Service Offers, estimated energy opportunity costs and opportunity cost sensitivities, impacts on system production costs, and operational requirements related to reliability, including a minimum aggregated response rate and minimizing short-term changes in the assignment of Resources to provide Regulation.

- (a) Regulation Capacity Offers will be evaluated in the selection process using a Regulation Capacity value adjusted to reflect historical performance, as described in Section III.14.3(c).
- (b) For the purposes of least-cost Resource selection, the following penalty factors are used for any violation of the Regulation requirements constraint.
 - (i) For Regulation Capacity shortfall:
 - 1. When the Energy Component of the Real-Time Locational Marginal Price is at least \$100/MW, the penalty factor is \$100/MW plus the Energy Component of the Real-Time Locational Marginal Price for each megawatt of Regulation Capacity shortfall.
 - 2. When the Energy Component of the Real-Time Locational Marginal Price is less than \$100/MW, the penalty factor is the maximum of either zero or \$100 plus the Energy Component of the Real-Time Locational Marginal Price for each megawatt of Regulation Capacity shortfall.
 - (ii) For Regulation Service shortfall:
 - 1. The penalty factor is \$10/MW for each megawatt of Regulation Service shortfall.
- (c) An eligible Resource may be omitted from providing Regulation due to operational restrictions, including, but not limited to, binding transmission constraints, planned shutdown, or known or anticipated system operating conditions.
- (d) The ISO may deviate from the market-based Resource selections to maintain system reliability.

- (e) In the event one or more Resources have equivalent least-cost characteristics in the selection process, the Resource with the larger Regulation Capacity value will be selected or, if the Regulation Capacity value is also equal, the Resource with the earliest Supply Offer submission time will be selected.

III.14.6 Regulation Market Dispatch.

Regulation Resources selected to provide Regulation are dispatched to reduce the New England Control Area's area control error as needed to ensure reliability and compliance with NERC and NPCC control standards.

- (a) There are three types of AGC SetPoints used to dispatch Regulation Resources:
 - (i) an energy-neutral trinary dispatch that calculates AGC SetPoints equal to one of the following three values: Regulation High Limit, Regulation Low Limit, and a midpoint between the Regulation High Limit and the Regulation Low Limit;
 - (ii) a relative response rate dispatch using multi-valued AGC SetPoints with AGC SetPoint Deadbands, and;
 - (iii) an energy-neutral relative response rate dispatch using multi-valued AGC SetPoints with AGC SetPoint Deadbands.
- (b) Regulation Resources may use the following dispatch methods:
 - (i) Generator Assets may be dispatched to provide Regulation using the AGC SetPoint described in (a)(ii);
 - (ii) Continuous Storage ATRRs may be dispatched to provide Regulation using the AGC SetPoint described in (a)(i) or (a)(iii); and
 - (iii) all other Regulation Resources may be dispatched to provide Regulation using any of the three AGC SetPoint types.
- (c) A Market Participant permitted to use more than one dispatch method pursuant to Section III.14.6(b) may change the dispatch method to be effective at the start of every calendar quarter. Requests to change the dispatch method must be received no later than 30 Business Days before the requested effective date of the change.

- (d) AGC SetPoints will be established to cost-effectively meet reliability criteria based on the current area control error, the Automatic Response Rate and offer parameters of the selected Resources, as well as the current and predicted state of the system.
- (e) When either a Generator Asset or a Continuous Storage ATRR is providing Regulation, the related energy dispatch ranges shall be reduced as described in Section III.1.10.9(g) and (h).

III.14.7 Performance Monitoring.

- (a) The performance of a Resource providing Regulation will be monitored in Real-Time and a performance score will be calculated. For each settlement interval, a Resource is considered to be non-performing if, after a grace period, the Resource is not responding to AGC SetPoints (or, in the case of a Continuous Storage ATRR, not responding to the net AGC SetPoint and Desired Dispatch Points) at a rate at least equal to a percentage of its Automatic Response Rate or outside a tolerance band around the AGC SetPoint that is equal to a percentage of the Regulation Capacity of the Resource. The grace period will be between two and four minutes. The percentage of the Automatic Response Rate will be between 80 and 95 percent. The percentage of the Regulation Capacity of the Resource will be between 5 and 15 percent. The specific values will be published on the ISO's website.
- (b) A Resource that changes its direction of movement in a manner inconsistent with the AGC SetPoint is considered non-performing for the remainder of the hour.

III.14.8 Regulation Market Settlement and Compensation.

- (a) Calculation of Regulation Clearing Prices.
 - (i) Regulation Service clearing prices.

The Regulation Service clearing price is set equal to the highest Regulation Service Offer of the Resources providing Regulation.
 - (ii) Regulation Capacity clearing prices.
 1. The Regulation Capacity clearing price is set such that total compensation from the Regulation Service clearing price and the Regulation Capacity clearing price will, based on a uniform clearing price applied to all selected Resources, ensure recovery of as-bid costs for Regulation Capacity, estimated Regulation Service, estimated energy opportunity costs, and the Resource-specific incremental cost savings payment determined for each Resource (as described in subsection (ii)(2) below).

2. The incremental cost savings provided by each Resource is assessed by determining the least-cost selection of Resources from the most recently approved Regulation selection process both with and without the particular Resource. The incremental cost savings for the settlement interval is the estimated total cost of Regulation without the Resource minus the estimated total cost of Regulation with the Resource, including the application of penalty factors to any violation of the Regulation requirements constraint.

(b) Compensation to Regulation Providers.

A Market Participant with a Resource that is selected to provide Regulation and that complies with the dispatch and performance requirements in this Section III.14 shall receive a Regulation Capacity payment, a Regulation Service payment and, in some cases, a Regulation make-whole payment, as described below.

(i) Regulation Capacity Payment.

The capacity payment for each five-minute interval is equal to the time on Regulation during the interval multiplied by the amount of actual Regulation Capacity multiplied by the Regulation Capacity clearing price multiplied by the Regulation performance score calculated pursuant to Section III.14.7.

(ii) Regulation Service Payment.

The service payment for each five-minute interval is equal to the amount of service provided (as measured by the absolute value of the Resource's scheduled movement at the claimed rate of response without delay, in megawatts, toward the AGC SetPoint in response to AGC dispatch signals) multiplied by the Regulation Service clearing price multiplied by the Regulation performance score calculated pursuant to Section III.14.7.

(iii) Make-Whole Payment.

If revenues from the Regulation Capacity clearing price and the Regulation Service clearing price (as adjusted by the performance score) are insufficient to cover a Market Participant's as-bid costs for the actual Regulation Capacity and the amount of Regulation Service provided during a settlement interval (as adjusted by the performance score) plus actual energy opportunity costs (as calculated in subsection (iii)(1) below), a make-whole payment will be provided.

1. Calculation of Actual Energy Opportunity Costs. A Resource-specific Regulation energy opportunity cost for Regulation Resources that are dispatchable in the Real-

Time Energy Market is determined for each five-minute interval that the Resource is selected to provide Regulation. The Regulation energy opportunity cost shall be equal to the product of (i) the absolute value of the deviation of the Regulation Resource's dispatch level necessary to follow the ISO's Regulation signals from the Resource's expected dispatch level if it had been dispatched in economic merit order and (ii) the absolute value of the difference between the Real-Time Price at the Node associated with the Regulation Resource and the megawatt weighted average Supply Offer or Demand Bid price for the energy associated with the deviation of the Resource's expected dispatch level if it had been dispatched in economic merit order. The Regulation energy opportunity cost for a Resource that is dispatched pursuant to Section III.1.10.9(f) shall be equal to zero for the settlement interval.

(c) Regulation Up Reserve Charge.

If all or a portion of a Resource's Regulation Capacity is included in the Resource's Reserve Quantity For Settlement, a regulation up reserve charge will be applied. The regulation up reserve charge is equal to the amount of Regulation Capacity that is included in the Resource's Reserve Quantity For Settlement multiplied by the lesser of the applicable Real-Time Reserve Clearing Price and the applicable Real-Time Locational Marginal Price.

(d) Regulation Charges.

Each Market Participant shall have a Regulation charge equal to its pro rata share of the Regulation Capacity Requirement and Regulation Service Requirement for the hour based on the Market Participant's total Real-Time Load Obligation. For the purposes of allocating Regulation charges, the Real-Time Load Obligation of a DARD associated with an ATRR that has provided Regulation during the hour shall be limited to the quantity of energy consumed by the DARD during the hour not associated with Regulation. Calculation of Regulation charges shall exclude contributions to Real-Time Load Obligations from Coordinated External Transactions.

III.14.9 Regulation Market Testing Environment.

The ISO administers a regulation resource test environment that allows Market Participants to evaluate or demonstrate the performance of Resources without an operational history of providing Regulation prior to participation in the Regulation Market.

Resources providing Regulation under the regulation resource test environment will be compensated for the Regulation Capacity and Regulation Service provided in response to AGC SetPoints at the lowest of the Regulation Capacity Offer prices and Regulation Service Offer prices offered for any Resource selected during each settlement interval. Resources that are also dispatchable in the Real-Time Energy Market will be compensated for Regulation energy opportunity costs incurred while operating under the regulation resource test environment.

Resources performing a minimal responsiveness test will not be compensated for Regulation.

A Resource may only provide Regulation under the regulation test environment until sufficient operational information has been collected to verify reasonable operating parameters for the Resource or to determine that the Resource does not meet the eligibility requirements necessary to participate in the Regulation Market.

III.14 Regulation Market.

For purposes of this Section III.14, the settlement interval is every five minutes. If a dollar-per-MW-hour value is applied in a calculation where the interval of the value produced in that calculation is less than an hour, then for purposes of that calculation the dollar-per-MW-hour value is divided by the number of intervals in the hour.

III.14.1 Regulation Market System Requirements.

The Regulation Capacity Requirement and Regulation Service Requirement are determined based on historical control performance and compliance with NERC and NPCC control standards. The Regulation Capacity Requirement and Regulation Service Requirement will be published on the ISO's website.

During abnormal system conditions, the ISO may deviate from the Regulation Capacity Requirement or Regulation Service Requirement to maintain system reliability.

III.14.2 Regulation Market Eligibility.

A Regulation Resource must satisfy the following conditions:

(a) Physical Parameters.

(i) Automatic Response Rate.

1. The minimum Automatic Response Rate is 1 MW/minute.

(ii) Regulation Capacity.

1. The minimum Regulation Capacity of a Generator Asset that is not part of an Electric Storage Facility will be determined based on the Generator Asset's size and operating characteristics and must be greater than or equal to: (a) 5 MW, and; (b) two times the Generator Asset's AGC SetPoint Deadband plus 1 MW.
2. The minimum Regulation Capacity of an Alternative Technology Regulation Resource and a Generator Asset associated with a Binary Storage Facility is 0.1 MW.

(b) Regulation Registration and Technical Requirements.

A facility capable of providing Regulation:

- (i) shall be located within the New England Control Area;
- (ii) shall meet the requirements specified in ISO New England Operating Procedure No. 14 and ISO New England Operating Procedure No. 18;

- (iii) shall not be registered as both an ATRR and a dispatchable Generator Asset, nor as both an ATRR and a DARD, unless it is a Continuous Storage Facility (however, an ATRR may be located at the same facility as either or both a Generator Asset and a DARD if the Generator Asset and DARD are separately metered and reported);
 - (iv) may provide Regulation only as an ATRR, and not as another Resource type, if registered as an ATRR;
 - (v) shall be capable of receiving and following AGC SetPoints sent electronically at four-second intervals;
 - (vi) shall have a demonstrated capability to reliably follow Dispatch Instructions, consistent with normal operating characteristics and physical offer parameters, including Regulation Capacity and Automatic Response Rate. Resources without an operational history of providing Regulation must establish and demonstrate this capability as follows:
 1. Any Resource with less than one-hour sustainability must participate in the Regulation test environment specified in Section III.14.9. (For a storage facility, sustainability is measured based on full rate of charge/discharge starting from a half-full status.)
 2. All Resources must satisfy a minimum responsiveness test that demonstrates that a Resource can follow AGC SetPoints.
- (c) Aggregation.
- (i) An ATRR that is not part of a Continuous Storage Facility may be composed of an aggregation of facilities of less than 1 MW in size. All facilities in an ATRR must be located in the same DRR Aggregation Zone. Each of the facilities that form the aggregated ATRR must meet the Regulation Market eligibility requirements specified in this Section III.14.2 other than MW size.
 - (ii) A single AGC SetPoint will be sent every AGC cycle to the aggregated ATRR. A Market Participant with an aggregated ATRR is responsible for management and control of the component facilities to ensure an accurate aggregate response to the AGC SetPoint.
 - (iii) The component facilities must be metered and recorded in a manner that allows real-time performance to be measured against Dispatch Instructions and provides for the retention of the recorded information for purposes of verification, accounting for any performance offsets from other loads, generation or devices under the direct or indirect control of the

aggregator as specified in ISO New England Operating Procedure No. 18, Metering and Telemetry Criteria.

- (iv) ATRR telemetry shall be located at the Point of Interconnection(s) or, for ATRRs located behind Retail Delivery Point(s), telemetry shall be located at the Retail Delivery Point(s). Any exception to this locational requirement is limited to non-aggregated ATRRs and is subject to the Market Participant with the Regulation Resource demonstrating to the ISO that:
 - 1. there are no facility-specific configuration issues that would result in other devices at the facility counteracting the Regulation being provided;
 - 2. all the other devices at the facility function independently from the Regulation device(s); and
 - 3. in the case of Distributed Energy Resource Aggregations participating as an ATRR, confirm that the aggregation is limited to a single facility and that the requirements of this Section III.14.2(c)(iv)(1) and (2) are met.

III.14.3 Regulation Market Offers.

- (a) A Market Participant with a Regulation Resource must submit a Regulation Market Supply Offer to provide Regulation. The Regulation Market Supply Offer may specify offer parameters that vary on an hourly basis and shall remain effective until cancelled or replaced by the Market Participant. A Market Participant may modify Regulation Market Supply Offer parameters for a given hour up to five minutes before the start of the hour. Regulation Resource availability must be updated throughout the Operating Day to reflect the actual operating capability of the resource. The Regulation Market Supply Offer of a Regulation Resource must specify the following offer parameters:
 - (i) Regulation Resource status (available/unavailable)
 - (ii) Regulation High LimitFor a Generator Asset, the Regulation High Limit must be less than or equal to the Generator Asset's Economic Maximum Limit. For a Continuous Storage ATRR, the Regulation High Limit must be positive and equal to the Regulation Low Limit multiplied by negative one, with an allowance for round-trip efficiency loss.

(iii) Regulation Low Limit

For a Generator Asset, the Regulation Low Limit must be greater than or equal to the Generator Asset's Economic Minimum Limit. For a Continuous Storage ATRR, the Regulation Low Limit must be negative and equal to the Regulation High Limit multiplied by negative one, with an allowance for round-trip efficiency loss.

(iv) Automatic Response Rate (MW/minute)

(v) Regulation Capacity Offer (\$/MW)

The Regulation Capacity Offer price must be greater than or equal to \$0/MW and may not exceed \$100/MW. A Market Participant may include estimated inter-temporal opportunity costs in its Regulation Capacity Offer price.

(vi) Regulation Service Offer (\$/MW of instructed movement)

The Regulation Service Offer price must be greater than or equal to \$0/MW of instructed movement and may not exceed \$10/MW of instructed movement.

(b) Additional Constraints on Offer Parameters.

Regulation offer parameters that exceed recent historical performance for Regulation Capacity or Automatic Response Rate will be constrained to reflect values consistent with the demonstrated performance of the Resource. The Resource of a Market Participant that submits offer parameters inconsistent with demonstrated performance will be disqualified from selection to provide Regulation until the submitted parameters are modified to be consistent with demonstrated performance.

(c) Regulation Capacity Performance Adjustment.

- (i) Regulation Capacity offers will be evaluated in the Regulation selection process using a capacity value adjusted to reflect historical performance. The adjusted value will account for the Resource's demonstrated ability to follow the AGC dispatch signal over an hour at the offered Regulation Capacity level. The percentage adjustment will be reevaluated periodically to account for changes in the performance of the Resource. Resources with no historical performance record will be evaluated pursuant to the regulation resource test environment specified in Section III.14.9.
- (ii) The adjusted Regulation Capacity value will be used for the purpose of selecting Resources (described in Section III.14.5) and for determining Regulation Capacity compensation (described in Section III.14.8), but will not be used in Regulation dispatch (described in Section III.14.6).

III.14.4

[Reserved]

III.14.5

Regulation Market Resource Selection.

Resources are selected each hour (or more frequently as needed) to provide Regulation from eligible and available Resources to meet the Regulation Capacity Requirement and Regulation Service Requirement at the least cost based on: Regulation Capacity Offers, Regulation Service Offers, estimated energy opportunity costs and opportunity cost sensitivities, impacts on system production costs, and operational requirements related to reliability, including a minimum aggregated response rate and minimizing short-term changes in the assignment of Resources to provide Regulation.

- (a) Regulation Capacity Offers will be evaluated in the selection process using a Regulation Capacity value adjusted to reflect historical performance, as described in Section III.14.3(c).
- (b) For the purposes of least-cost Resource selection, the following penalty factors are used for any violation of the Regulation requirements constraint.
 - (i) For Regulation Capacity shortfall:
 - 1. When the Energy Component of the Real-Time Locational Marginal Price is at least \$100/MW, the penalty factor is \$100/MW plus the Energy Component of the Real-Time Locational Marginal Price for each megawatt of Regulation Capacity shortfall.
 - 2. When the Energy Component of the Real-Time Locational Marginal Price is less than \$100/MW, the penalty factor is the maximum of either zero or \$100 plus the Energy Component of the Real-Time Locational Marginal Price for each megawatt of Regulation Capacity shortfall.
 - (ii) For Regulation Service shortfall:
 - 1. The penalty factor is \$10/MW for each megawatt of Regulation Service shortfall.
- (c) An eligible Resource may be omitted from providing Regulation due to operational restrictions, including, but not limited to, binding transmission constraints, planned shutdown, or known or anticipated system operating conditions.
- (d) The ISO may deviate from the market-based Resource selections to maintain system reliability.

- (e) In the event one or more Resources have equivalent least-cost characteristics in the selection process, the Resource with the larger Regulation Capacity value will be selected or, if the Regulation Capacity value is also equal, the Resource with the earliest Supply Offer submission time will be selected.

III.14.6 Regulation Market Dispatch.

Regulation Resources selected to provide Regulation are dispatched to reduce the New England Control Area's area control error as needed to ensure reliability and compliance with NERC and NPCC control standards.

- (a) There are three types of AGC SetPoints used to dispatch Regulation Resources:
 - (i) an energy-neutral trinary dispatch that calculates AGC SetPoints equal to one of the following three values: Regulation High Limit, Regulation Low Limit, and a midpoint between the Regulation High Limit and the Regulation Low Limit;
 - (ii) a relative response rate dispatch using multi-valued AGC SetPoints with AGC SetPoint Deadbands, and;
 - (iii) an energy-neutral relative response rate dispatch using multi-valued AGC SetPoints with AGC SetPoint Deadbands.
- (b) Regulation Resources may use the following dispatch methods:
 - (i) Generator Assets may be dispatched to provide Regulation using the AGC SetPoint described in (a)(ii);
 - (ii) Continuous Storage ATRRs may be dispatched to provide Regulation using the AGC SetPoint described in (a)(i) or (a)(iii); and
 - (iii) all other Regulation Resources may be dispatched to provide Regulation using any of the three AGC SetPoint types.
- (c) A Market Participant permitted to use more than one dispatch method pursuant to Section III.14.6(b) may change the dispatch method to be effective at the start of every calendar quarter. Requests to change the dispatch method must be received no later than 30 Business Days before the requested effective date of the change.

- (d) AGC SetPoints will be established to cost-effectively meet reliability criteria based on the current area control error, the Automatic Response Rate and offer parameters of the selected Resources, as well as the current and predicted state of the system.
- (e) When either a Generator Asset or a Continuous Storage ATRR is providing Regulation, the related energy dispatch ranges shall be reduced as described in Section III.1.10.9(g) and (h).

III.14.7 Performance Monitoring.

- (a) The performance of a Resource providing Regulation will be monitored in Real-Time and a performance score will be calculated. For each settlement interval, a Resource is considered to be non-performing if, after a grace period, the Resource is not responding to AGC SetPoints (or, in the case of a Continuous Storage ATRR, not responding to the net AGC SetPoint and Desired Dispatch Points) at a rate at least equal to a percentage of its Automatic Response Rate or outside a tolerance band around the AGC SetPoint that is equal to a percentage of the Regulation Capacity of the Resource. The grace period will be between two and four minutes. The percentage of the Automatic Response Rate will be between 80 and 95 percent. The percentage of the Regulation Capacity of the Resource will be between 5 and 15 percent. The specific values will be published on the ISO's website.
- (b) A Resource that changes its direction of movement in a manner inconsistent with the AGC SetPoint is considered non-performing for the remainder of the hour.

III.14.8 Regulation Market Settlement and Compensation.

- (a) Calculation of Regulation Clearing Prices.
 - (i) Regulation Service clearing prices.

The Regulation Service clearing price is set equal to the highest Regulation Service Offer of the Resources providing Regulation.
 - (ii) Regulation Capacity clearing prices.
 1. The Regulation Capacity clearing price is set such that total compensation from the Regulation Service clearing price and the Regulation Capacity clearing price will, based on a uniform clearing price applied to all selected Resources, ensure recovery of as-bid costs for Regulation Capacity, estimated Regulation Service, estimated energy opportunity costs, and the Resource-specific incremental cost savings payment determined for each Resource (as described in subsection (ii)(2) below).

2. The incremental cost savings provided by each Resource is assessed by determining the least-cost selection of Resources from the most recently approved Regulation selection process both with and without the particular Resource. The incremental cost savings for the settlement interval is the estimated total cost of Regulation without the Resource minus the estimated total cost of Regulation with the Resource, including the application of penalty factors to any violation of the Regulation requirements constraint.

(b) Compensation to Regulation Providers.

A Market Participant with a Resource that is selected to provide Regulation and that complies with the dispatch and performance requirements in this Section III.14 shall receive a Regulation Capacity payment, a Regulation Service payment and, in some cases, a Regulation make-whole payment, as described below.

(i) Regulation Capacity Payment.

The capacity payment for each five-minute interval is equal to the time on Regulation during the interval multiplied by the amount of actual Regulation Capacity multiplied by the Regulation Capacity clearing price multiplied by the Regulation performance score calculated pursuant to Section III.14.7.

(ii) Regulation Service Payment.

The service payment for each five-minute interval is equal to the amount of service provided (as measured by the absolute value of the Resource's scheduled movement at the claimed rate of response without delay, in megawatts, toward the AGC SetPoint in response to AGC dispatch signals) multiplied by the Regulation Service clearing price multiplied by the Regulation performance score calculated pursuant to Section III.14.7.

(iii) Make-Whole Payment.

If revenues from the Regulation Capacity clearing price and the Regulation Service clearing price (as adjusted by the performance score) are insufficient to cover a Market Participant's as-bid costs for the actual Regulation Capacity and the amount of Regulation Service provided during a settlement interval (as adjusted by the performance score) plus actual energy opportunity costs (as calculated in subsection (iii)(1) below), a make-whole payment will be provided.

1. Calculation of Actual Energy Opportunity Costs. A Resource-specific Regulation energy opportunity cost for Regulation Resources that are dispatchable in the Real-

Time Energy Market is determined for each five-minute interval that the Resource is selected to provide Regulation. The Regulation energy opportunity cost shall be equal to the product of (i) the absolute value of the deviation of the Regulation Resource's dispatch level necessary to follow the ISO's Regulation signals from the Resource's expected dispatch level if it had been dispatched in economic merit order and (ii) the absolute value of the difference between the Real-Time Price at the Node associated with the Regulation Resource and the megawatt weighted average Supply Offer or Demand Bid price for the energy associated with the deviation of the Resource's expected dispatch level if it had been dispatched in economic merit order. The Regulation energy opportunity cost for a Resource that is dispatched pursuant to Section III.1.10.9(f) shall be equal to zero for the settlement interval.

(c) Regulation Up Reserve Charge.

If all or a portion of a Resource's Regulation Capacity is included in the Resource's Reserve Quantity For Settlement, a regulation up reserve charge will be applied. The regulation up reserve charge is equal to the amount of Regulation Capacity that is included in the Resource's Reserve Quantity For Settlement multiplied by the lesser of the applicable Real-Time Reserve Clearing Price and the applicable Real-Time Locational Marginal Price.

(d) Regulation Charges.

Each Market Participant shall have a Regulation charge equal to its pro rata share of the Regulation Capacity Requirement and Regulation Service Requirement for the hour based on the Market Participant's total Real-Time Load Obligation. For the purposes of allocating Regulation charges, the Real-Time Load Obligation of a DARD associated with an ATRR that has provided Regulation during the hour shall be limited to the quantity of energy consumed by the DARD during the hour not associated with Regulation. Calculation of Regulation charges shall exclude contributions to Real-Time Load Obligations from Coordinated External Transactions.

III.14.9 Regulation Market Testing Environment.

The ISO administers a regulation resource test environment that allows Market Participants to evaluate or demonstrate the performance of Resources without an operational history of providing Regulation prior to participation in the Regulation Market.

Resources providing Regulation under the regulation resource test environment will be compensated for the Regulation Capacity and Regulation Service provided in response to AGC SetPoints at the lowest of the Regulation Capacity Offer prices and Regulation Service Offer prices offered for any Resource selected during each settlement interval. Resources that are also dispatchable in the Real-Time Energy Market will be compensated for Regulation energy opportunity costs incurred while operating under the regulation resource test environment.

Resources performing a minimal responsiveness test will not be compensated for Regulation.

A Resource may only provide Regulation under the regulation test environment until sufficient operational information has been collected to verify reasonable operating parameters for the Resource or to determine that the Resource does not meet the eligibility requirements necessary to participate in the Regulation Market.

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