134 FERC ¶ 61,144
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Jon Wellinghoff, Chairman;
Marc Spitzer, Philip D. Moeller,
John R. Norris, and Cheryl A. LaFleur.

ISO New England Inc. Docket No. ER11-2580-000

ORDER ACCEPTING ISO NEW ENGLAND'S PROPOSED REVISIONS TO THE TIE BENEFITS CALCULATION METHODOLOGY, SUBJECT TO CONDITION, AND DIRECTING COMPLIANCE FILING

(Issued February 28, 2011)

1. On December 30, 2010, ISO New England Inc. (ISO-NE) filed, pursuant to section 205 of the Federal Power Act (FPA),[1] revisions to Market Rule 1, section III.12 of ISO-NE's Transmission, Markets and Services Tariff (Tariff), which modify the methodology for calculating tie benefits (Tie Benefits Revisions Filing). Tie benefits are an input into the Installed Capacity Requirement calculation needed to conduct the Forward Capacity Auction (FCA) and subsequent annual reconfiguration auctions. As discussed below, we will accept the proposed tariff changes, subject to condition, effective March 1, 2011, as requested, and further direct a compliance filing.

I. Background and Summary of Filing

2. ISO-NE procures the resources needed to reliably serve the New England control area via its Forward Capacity Market (FCM). The FCM consists of a primary auction, which takes place approximately three and a half years before the start of a Capacity Commitment Period, and three subsequent annual reconfiguration auctions. The quantity of the resources to be procured in the FCM is specified through the Installed Capacity Requirement. Specifically, the Installed Capacity Requirement is the minimum amount of resources needed to meet the New England control area reliability requirements of disconnecting non-interruptible customers (i.e., a loss of load expectation) no more than once every ten years or 0.1 days per year. Assumptions used in determining the Installed

[1] 16 U.S.C. § 824d (2006).

Capacity Requirement include load forecast, unit availability, and, most relevant here, tie benefits.

3. Tie benefits reflect the amount of emergency assistance that is assumed will be available to New England from its neighboring control areas, without jeopardizing reliability in New England or its neighboring control areas, in the event of a capacity shortage in New England. Under the current market rules, tie benefits are calculated for New England's interconnections with its three directly interconnected neighboring control areas (i.e., Québec, New Brunswick, and New York). The tie benefits calculation is conducted using the probabilistic General Electric Multi-Area Reliability Simulation (GE MARS) program to model the expected system conditions of New England and its three directly interconnected neighboring control areas.

A. Tie Benefits Order

4. On December 15, 2009, ISO-NE and New England Power Pool (NEPOOL) together filed alternative, proposed values for the Installed Capacity Requirement and related values for use in the third, final FCM reconfiguration auction for the 2010/2011 Capability Year. Both ISO-NE and NEPOOL acknowledged that a tie benefits value of 3,415 MW (resulting from the then-effective "as-is" analysis) was too high.[2] ISO-NE proposed to revise section III.12.9 of Market Rule 1 to require the use of the tie benefits value calculated for the primary FCA using the "at criterion" methodology for the third annual reconfiguration auction, which resulted in a tie benefits value of 1,860 MW for the third annual reconfiguration auction for the 2010/2011 Capability Year.[3]

5. ISO-NE expressed confidence that it could reliably operate its system using a tie benefits value of 1,860 MW. Further, ISO-NE maintained that using the "at criterion" methodology was just and reasonable, because it would: (1) use a tie benefits value that has already been approved by the Commission; (2) provide stability to interested parties both inside the New England control area and neighboring control areas; and (3) allow for continued discussions between ISO-NE and New England stakeholders to determine any revised methodology for tie benefits in the future.

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[2] The "as is" methodology assumes that neighboring control areas will have resources and demands equal to those that are forecasted for the time of the New England Capacity Commitment Period and that all those resources will be available to meet load within the neighboring control areas.

[3] The "at criterion" methodology assumes that neighboring control areas will have the amount of resources to meet the 0.1 days per year loss of load expectation resource adequacy criterion for the capacity period.

6. NEPOOL submitted an alternative to ISO-NE's proposal.[4] NEPOOL alleged that ISO-NE's proposed tie benefits calculation methodology produced a lower amount of tie benefits and thereby added unnecessary cost for consumers to bear (because all other things being equal, a lower tie benefits value necessitates a higher Installed Capacity Requirement). In NEPOOL's view, ISO-NE "considered the 3,415 MW tie benefit value too high, and stated that it could result in over-reliance on tie benefits, even though use of the value in calculating [the Installed Capacity Requirement] would still result in an [Installed Capacity Requirement] that met the New England resource adequacy criterion."[5] NEPOOL alternatively proposed to use the "as is" methodology but to cap the tie benefits value at 2,286 MW for the final annual reconfiguration auction for the 2010/2011 and 2011/2012 Capability Years.

7. NEPOOL's alternative proposal also included a sunset period to allow time for NEPOOL, ISO-NE, and ISO-NE's stakeholders to agree upon a permanent methodology regarding the calculation of tie benefits for the final reconfiguration auctions.

8. The Commission evaluated both proposals in the Tie Benefits Order and concluded that ISO-NE's proposal was just and reasonable and preferable.[6] In doing so, the Commission found: (1) there was no dispute that the level of tie benefits ISO-NE proposed remains available from neighboring control areas; (2) although the "as is" methodology was approved by the Commission for the final reconfiguration auction, it is now clear that its application for the 2010/2011 commitment period would trigger operational concerns;[7] and (3) NEPOOL failed to demonstrate the validity of its proposed tie benefits value.[8]

9. The Commission further directed ISO-NE to consider a process to enable analysis of alternative proposals in a future Market Rule amendment. The Commission also directed ISO-NE to implement NEPOOL's proposed two-year sunset provision such that ISO-NE would employ a stakeholder process to address revising the tie benefit

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[4] Section 11.1.5 of the Participants Agreement provides for Commission review under section 205 of the FPA of an alternative Market Rule proposal that is approved by the Participants Committee by a vote equal to or greater than 60 percent.

[5] NEPOOL Transmittal Letter, Docket No. ER10-438-000, at 6.

[6] *ISO New England Inc.*, 130 FERC ¶ 61,105, at P 70 (2010) (Tie Benefits Order).

[7] *Id.* P 76, 88.

[8] *Id.* P 84; *see also id.* P 85-86.

methodology applicable to the final reconfiguration auction for the 2012/2013 commitment period.

B. Tie Benefits Revisions Filing

10. Pursuant to the Tie Benefits Order, following its stakeholder process, ISO-NE submits the Tie Benefits Revisions Filing at issue here, reflecting a methodology for the tie benefits calculation to apply to the third (and final) annual reconfiguration auction. Specifically, ISO-NE proposes to calculate tie benefits using "at criterion" modeling assumptions for both New England and its directly interconnected neighboring control areas.[9]

11. Additionally, ISO-NE proposes revisions to the tie benefits calculation methodology to address certain "Reserved Issues," which were originally raised in a 2008 stakeholder process on tie benefits. The Reserved Issues include: (1) modeling internal transmission constraints in New England and its neighboring control areas in tie benefits calculations; (2) calculating tie benefit contributions for individual interconnections, in addition to the existing calculations of "total" tie benefits from all directly interconnected neighboring control areas and tie benefits from each individual control area; and (3) modeling capacity and transmission capabilities and constraints for other neighboring control areas including those that are not directly interconnected to New England, for use in developing tie benefits. In conjunction with these changes, ISO-NE proposes revisions to account for capacity imports and changes in transmission import capability in the tie benefits calculation.[10]

12. ISO-NE requests that its proposed revisions become effective March 1, 2011, in order to allow the revised calculation methodology to be used in the Installed Capacity

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[9] As noted by ISO-NE, and by NEPOOL in its comments, the Participants Committee failed to approve ISO-NE's proposal, with a vote of 48.76 percent in favor.

[10] ISO-NE notes that stakeholders did not formally vote on the proposed resolution of the Reserved Issues and the proposal on the treatment of capacity imports. ISO-NE and NEPOOL note that Cross-Sound Cable Company, LLC (Cross-Sound Cable) and the Long Island Power Authority and Long Island Lighting Company d/b/a LIPA (collectively, LIPA) proposed an amendment intended to give the Cross-Sound Cable interconnection equivalent tie benefits rights to both (1) minimally interconnected generation that was grandfathered in the FCM settlement agreement and implementing market rule amendments; and (2) the Phase I/II HVDC (i.e., high voltage, direct current) Interconnection. The Participants Committee failed to approve this amendment, with a vote of 17.1% in favor.

Requirement calculation for the third annual reconfiguration auction for the 2012/2013 Capacity Commitment Period.[11]

II. Notice of Filing and Responsive Pleadings

13. Notice of the filing was published in the *Federal Register*, 76 Fed. Reg. 1418 (2011), with interventions and protests due on or before January 20, 2011. The deadline was subsequently extended to January 25, 2011. Timely motions to intervene were filed by Brookfield Energy Marketing LP; Constellation Energy Commodities Group, Inc. and Constellation NewEnergy, Inc.; Dynegy Power Marketing Inc.;[12] Exelon Corporation; Northeast Utilities Service Company; NRG Companies;[13] and The United Illuminating Company. NEPOOL, H.Q. Energy Services (U.S.) Inc. (Hydro Québec), National Grid USA (National Grid), and New England States Committee on Electricity (NESCOE) timely filed motions to intervene and comments.

14. The Massachusetts Attorney General (Massachusetts AG) and the Joint Parties[14] timely filed motions to intervene and protests. The Maine Public Utilities Commission and the New Hampshire Public Utilities Commission (Maine and New Hampshire Commissions) jointly submitted a notice of intervention and protest.

15. On February 9, 2011, ISO-NE and Hydro Québec submitted answers to the comments and protests.

16. On February 16, 2011, the Joint Parties submitted an answer to ISO-NE's answer. On February 18, 2011, ISO-NE submitted another answer.

[11] Tie Benefits Revisions Filing at 5.

[12] Dynegy Power Marketing Inc. includes Casco Bay Energy Company, LLC.

[13] NRG Companies include NRG Power Marketing LLC, Connecticut Jet Power LLC, Devon Power LLC, Middletown Power LLC, Montville Power LLC, Norwalk Power LLC, and Somerset Power LLC.

[14] The Joint Parties include LIPA and Cross-Sound Cable.

III. Discussion

A. Procedural Matters

17. Pursuant to Rule 214 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214 (2010), the notices of intervention and timely, unopposed motions to intervene serve to make the entities that filed them parties to this proceeding.

18. Rule 213 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.213(a)(2) (2010), prohibits an answer to a protest or an answer unless otherwise ordered by the decisional authority. We will accept answers submitted by ISO-NE on February 9 and 18, 2011, Hydro Québec, and the Joint Parties because they have provided information that assisted us in our decision-making process.

B. Tie Benefits for Third Annual Reconfiguration Auction

1. ISO-NE Proposal

19. In support of using the "at criterion" methodology for the third annual reconfiguration auction, ISO-NE explains that, from a planning perspective, the "at criterion" methodology utilizes reasonable assumptions about the amount of capacity in neighboring control areas that will be available and deliverable to New England if it is requested as emergency assistance. Specifically, the "at criterion" methodology accepts that an external control area's resource planners will achieve the reliability target of a system loss of load expectation of no more than 0.1 days per year.[15] In contrast, the "as is" methodology assumes that neighboring control areas will have available all resources that are currently planned to be in service for the time of the New England Capacity Commitment Period.[16] However, ISO-NE asserts that this is an unlikely assumption, since, if a neighboring control area has a surplus (beyond the 0.1 days per year loss of load expectation), it is unlikely that system planners will take steps to sustain that surplus.[17] Likewise, ISO-NE asserts that, if a neighboring control area has a shortage of

[15] *See* Tie Benefits Revisions Filing at 27.

[16] Thus, the neighboring control area's capacity utilized for purposes of calculating tie benefits could be higher or lower than the amount needed to meet the 0.1 days per year loss of load expectation standard. Tie Benefits Revisions Filing at 27.

[17] For example, ISO-NE surmises that if a unit decides to retire, it is unlikely that the neighboring control area will replace the capacity. Additionally, ISO-NE explains that, when a neighboring control area has surplus resources, the market in that control area will react through lower capacity prices, which will likely result in resource owners

(continued…)

capacity, resource planners for that control area are obligated to maintain the control area's reliability target.

20. Further, ISO-NE states that the "at criterion" methodology is also more consistent from a real-time system operations perspective. ISO-NE explains that system operators in New England and neighboring control areas neither plan for reliance on tie benefits for the daily operation of their own systems nor account for potential requests for tie benefits from other control areas; tie benefits are resources of "last resort."[18]

21. According to ISO-NE, on a day-to-day basis, only the remaining ramping capability of resources that have been committed to meet the local control area's load and reserve needs, as well as fast-start reserve resources, will be available to serve as emergency assistance to other control areas. Even if surplus capacity in neighboring control areas was available and could be committed in time to meet New England's emergency needs, ISO-NE states that limitations on the operation of the electrical system could restrict the deliverability of that excess capacity to New England during times of an emergency. The Tie Benefits Revisions Filing lists a number of factors that impact the deliverability of tie benefits: (1) transfer capability is not reserved for emergency assistance; (2) the maximum transfer capability of the interconnections between New England and its neighboring control areas can fluctuate based on the way in which resources within New England and on the other side of the interconnection are committed; and (3) New England's location at the end of the Eastern Interconnection limits its ability to rely on emergency assistance from neighboring control areas.[19]

22. Because of these concerns, ISO-NE asserts that New England must maintain a sufficient mix of internal generation resources. ISO-NE states that, in operational terms, New England's reserve margin must be sufficiently high, so that ISO-NE can operate the

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seeking new markets, retiring, mothballing, or otherwise leaving the market. Tie Benefits Revisions Filing at 28.

[18] ISO-NE states that this fact is reflected in the coordination agreements that it maintains with the system operators for its directly interconnected neighboring control areas. These agreements call for New England and its neighboring control areas to serve as the "supplier of last resort" by making available as emergency assistance generating capability in excess of the system's load requirements. However, the agreements state that each control area is expected to exercise due diligence to avoid or mitigate an emergency and strive to allow for commercial remedies. Tie Benefits Revisions Filing at 31.

[19] *Id.*, Brandien Test. at 10.

New England electrical system in accordance with the North American Electric Reliability Corporation (NERC) and Northeast Power Coordinating Council, Inc. (NPCC) reliability standards.[20] ISO-NE states that increasing tie benefits directly reduces the required amount of installed capacity in New England, which concomitantly reduces the reserve margin and the resources available to meet operating reserves.[21] ISO-NE asserts that the "at criterion" methodology for calculating tie benefits "removes from the Installed Capacity Requirement calculation the potential displacement of reserves with surplus that neighboring Control Areas are not planning to maintain."[22]

23. Additionally, ISO-NE states that, in compliance with the Tie Benefits Order, the Tie Benefits Revisions Filing is based upon information and analysis of reliability needs, emergency events, and costs provided to various stakeholders upon request. However, ISO-NE explains that, because an alternative proposal was not finalized until the evening before the NEPOOL Participants Committee's December 10, 2010, meeting, there was no opportunity to provide an analysis of any specific alternative. Instead, ISO-NE states that it commissioned the Brattle Group to perform an economic analysis (but not a reliability analysis) of differing levels of tie benefits with attention to the cost implications associated with tie benefits. ISO-NE states that the overall finding of this study was that an increase in tie benefits could result in capacity cost savings for consumers, though such savings would be partially offset by emergency energy purchases. Notwithstanding cost savings, ISO-NE explains that, in the absence of an alternative proposal that equally addressed reliability concerns, the reliability concerns ultimately drove its determination of a tie benefits calculation methodology.

2. Positions of the Parties

24. NESCOE, the Maine and New Hampshire Commissions, the Massachusetts AG, and National Grid do not support using the "at criterion" methodology for the tie benefits calculation for the third annual reconfiguration auctions, maintaining that the methodology is overly conservative and will result in additional consumer costs.

25. These parties question various assumptions used by ISO-NE in choosing the "at criterion" methodology over the "as is" methodology. For example, NESCOE states that the probabilistic analyses underling both the "as is" and "at criterion" approaches already assume certain forced outage rates, but, despite this fact, "ISO-NE appears to rely on the

[20] *Id.* at 34.

[21] *Id.* at 35.

[22] *Id.*

possibility of a unit trip during the Capacity Commitment Period to justify its rejection of the 'as is' methodology."[23] The Massachusetts AG argues that it is unnecessary to take reserves into account in tie benefits assumptions because the Installed Capacity Requirement already reflects the expected availability of generation. Further, the Massachusetts AG questions ISO-NE's statements that surplus capacity from neighboring control areas may not be available when needed, noting that the New York Independent System Operator, Inc. (NYISO) actually clears capacity above its "at criterion" level under its capacity market demand curve, and all of this capacity has an obligation to offer bids and respond to dispatch instructions.[24]

26. Additionally, the Maine and New Hampshire Commissions reject ISO-NE's assertion that the "as is" methodology results in an inappropriately high level of tie benefits. Further, the Maine and New Hampshire Commissions contend that "ISO-NE's concerns about reliability reductions that stem from recognizing a higher level of tie benefits [are] not supported in the filing."[25] The Maine and New Hampshire Commissions also contend that ISO-NE failed to fully explore the cost ramifications of other proposals put forth in the stakeholder process.[26]

27. National Grid and NESCOE submit an alternative proposal that applies "as is" assumptions with an "upper operational tie benefit limit" of 2,320 MW.[27] These parties assert that the alternative proposal provides the optimum balance of reliability and cost considerations. Additionally, National Grid believes that its alternative proposal is more

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[23] NESCOE Comments at 4.

[24] Massachusetts AG Protest at 5-6 (citing NYISO's Manual 4: Installed Capacity Manual, § 5.5 (August 2010)).

[25] Maine and New Hampshire Commissions Protest at 9.

[26] The Maine and New Hampshire Commissions note that ISO-NE's "at criterion" approach would result in a tie benefits value of 1,700 MW, resulting in a reserve margin of over 15 percent, while National Grid's "as is" approach would result in a tie benefits value of over 2,320 MW, and a reserve margin of between 13.2 percent and 13.7 percent. They argue that both of these reserve margins are significantly above the 9.7 percent reserve margin previously approved by the Commission. Maine and New Hampshire Commissions Protest at 5-6.

[27] *See* National Grid Comments at 4; NESCOE Comments at 5; *see also id.* at 5-6 (addressing ISO-NE's concerns about the "erosion of surplus capacity" established by the "as is" methodology and the overstatement of tie benefits from that methodology).

realistic, stating that the only issue to be determined is the recognition of surplus at the time of the third reconfiguration auction, which occurs just months before the relevant commitment period is to begin.[28] NESCOE argues that the alternative proposal is preferable because it is highly unlikely that more than 1,680 MW of surplus capacity will fail or retire in the six months following the tie benefit calculation.[29]

28. NESCOE and National Grid further assert that ISO-NE and NYISO appear to be making progress in removing inefficiencies along the ties between the neighboring control areas.[30] NESCOE argues that changes in real-time tie utilization and communications capabilities between ISO-NE and NYISO could impact the availability of resources for emergency relief in ways that provide additional support for the use of "less conservatively-biased" assumptions in the third reconfiguration auction.[31] Similarly, National Grid believes that addressing inefficiencies could allow ISO-NE and NYISO to maximize the benefits of ties, which would in turn create a more efficient Installed Capacity Requirement and allow the use of the "as is" methodology for determining tie benefits when calculating the Installed Capacity Requirement.

29. NESCOE criticizes the Brattle Report as not satisfying the Tie Benefits Order directive that ISO-NE analyze the cost implications of different tie benefits calculation methods. Specifically, NESCOE asserts that the Brattle Report is incomplete because it did not address a specific alternative proposal. NESCOE also states that the Brattle Report did not receive adequate stakeholder review because ISO-NE did not provide stakeholders with the report until the day before the final vote on the tie benefit calculation in December 2010. Accordingly, NESCOE believes that ISO-NE should be directed to allow stakeholders to comment on the Brattle Report through a new filing.[32] Likewise, the Massachusetts AG disputes the findings of the Brattle Report and argues

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[28] National Grid Comments at 5.

[29] NESCOE Comments at 5-6. This figure of 1,680 MW is derived from ISO-NE's preliminary probabilistic calculation of tie benefits using the "as is" methodology (4,000 MW) less National Grid's proposed cap of 2,320 MW.

[30] *See* ISO-NE and NYISO White Paper, Inter-Regional Interchange Scheduling: Analysis and Options (January 2011), *available at* http://www.iso-ne.com/pubs/whtpprs/index.html.

[31] NESCOE Comments at 6.

[32] NESCOE Comments at 7.

that ratepayers will realize significant cost savings if excess capacity purchases are avoided, especially in the primary FCA.

30. NESCOE, the Maine and New Hampshire Commissions, the Massachusetts AG, and National Grid support an additional stakeholder process, stating that additional deliberation could significantly improve the cost-effectiveness of the results. Nevertheless, NESCOE supports the adoption of ISO-NE's methodology with respect to the upcoming auction period, and the Massachusetts AG does not object to the Commission accepting ISO-NE's proposal on a temporary basis.

31. On the other hand, Hydro Québec fully supports ISO-NE's filing and any effort to prevent reliance upon an inflated level of tie benefits.[33] Hydro Québec agrees with ISO-NE's assertion that an over-reliance on tie benefits may be beneficial to customers in the short-term because of the resulting lower costs, but in the long-run it jeopardizes reliability. Hydro Québec states that tie benefits are only a probabilistic determination of available capacity without any actual contractual obligation. Hydro Québec argues that capacity buyers have an incentive to increase the tie benefits value since capacity buyers would be required to purchase less capacity. Hydro Québec argues that, although this helps consumers, the reliability of the system is put into peril because the system relies on capacity that is not contractually obligated when called upon during emergency situations.[34]

32. Hydro Québec argues that ISO-NE's decision to file a proposal utilizing the "at criterion" methodology protects against short-term power fluctuations and assumes that each control area will strive to meet its NERC-imposed obligation to maintain reliability.[35] Hydro Québec states that capacity buyers in New England favor the "as is" methodology because, in a time of capacity surplus, it produces a higher level of tie benefits. However, Hydro Québec agrees with ISO-NE that, in a time of surplus, it is reasonable to assume that generating capacity will go to other markets or retire, and thus not be available in emergency situations.[36] Hydro Québec points out that tie benefits are used solely for system planning purposes, not operational purposes: there is no entity that has a real-time contractual obligation to provide tie benefits, the operator can only

[33] Hydro Québec Comments at 1.

[34] *Id.* at 5.

[35] *Id.* at 4.

[36] *Id.*

call for emergency energy from a neighboring control area during shortage situations.[37] However, Hydro Québec contends that since transfer capability is often limited, tie benefits assumed to be available may not actually be deliverable in real time. Therefore, Hydro Québec believes that ISO-NE's proposal to use the "at criterion" methodology to calculate tie benefits will be sufficient to meet operating reserves, maintain reliability of the system, and ensure that adequate energy is available in times of emergency.

3. Answers

33. In its answer, ISO-NE contends that parties opposing the Tie Benefits Revisions Filing have failed to raise any serious issues with ISO-NE's reliance on "at criterion" assumptions. ISO-NE points out that all parties agreed that the application of an "as is" approach would have resulted in unacceptably high tie benefits assumptions.

34. ISO-NE states that it was unable to support the "as is" method in combination with various approaches to a cap because it was unable to develop a sound methodology for calculating the cap that did not also require significant changes to other aspects of the Installed Capacity Requirement calculation. Additionally, ISO-NE states that National Grid's "as is" proposal with a cap lacks any sound methodological foundation and fails to ensure that the resulting tie benefits value and remaining internal resources would be sufficient to meet system requirements, and was appropriately rejected in the stakeholder process.[38] ISO-NE believes that the methodology for National Grid's cap value was "reverse engineered" in an effort to support the value with sound methodology.[39] ISO-NE argues that, absent a sound cap methodology, further stakeholder discussion would be futile. ISO-NE maintains that since the "at criterion" methodology has been applied, reviewed, and proven to be fundamentally sound through years of operational experience, the current tie benefits proposal using the "at criterion" methodology should be accepted by the Commission.

35. ISO-NE disputes National Grid's and NESCOE's argument that the joint effort by ISO-NE and NYISO to improve the current inefficiencies in the coordination of day-to-day energy transactions can also improve the reliability of tie benefits. ISO-NE states that the effort currently underway between ISO-NE and NYISO seeks only to optimize joint utilization of the interfaces for the real-time energy market, not coordinate the resource commitment and dispatch that would be necessary to have a significant impact

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[37] *Id.* at 5.

[38] ISO-NE February 9 Answer at 26-27.

[39] *Id.* at 27.

on the current tie benefits calculation. Further, ISO-NE explains that even if the current effort did seek to jointly optimize resource commitment, there is no guarantee that load in New England would see lower costs.[40]

36. ISO-NE further disputes arguments that it is unnecessary to take reserves into account in the tie benefits assumptions because the Installed Capacity Requirement analysis accounts for the expected availability of generation. ISO-NE states that the expected generation availability assumed in the probabilistic Installed Capacity Requirement analysis is unrelated to the deterministic amount of reserves needed to support contingencies in real-time operation necessary for system security. Simply stated, adequacy and security are not the same, and both requirements must be met.[41] Additionally, ISO-NE states that, in operating the system during emergency conditions, it does not call on tie benefits; rather, it calls on emergency assistance from neighboring control areas, which may or may not be available. ISO-NE argues that the concept of "tie benefits" is not one that is utilized in system operations, and thus, operating reserves and tie benefits must be viewed separately from an operations standpoint in order to protect reliability if tie benefits are not available.[42] According to ISO-NE, using the "at criterion" approach will ensure that its reserve margin will be adequate to offset the limitations imposed by New England's interconnection to other transmission systems and allow ISO-NE to operate the New England electric system in accordance with NERC and NPCC Reliability standards.

37. ISO-NE also takes issue with NESCOE's and National Grid's call for further stakeholder discussion concerning the Brattle Report. ISO-NE states that the Brattle Group shared drafts of the report with ISO-NE throughout the course of its development, and that the Brattle Report simply confirmed ISO-NE's conclusion that tie benefits should be maximized only up to a value where reliability is not jeopardized. Accordingly, ISO-NE states that a cost impact analysis for National Grid's alternative proposal is neither necessary nor useful because it fails to meet ISO-NE's reliability objective, as guided by NERC and NPCC reliability standards.[43]

38. In its answer, Hydro Québec reiterates its support for ISO-NE's proposal, maintaining that over-reliance on tie benefits will jeopardize reliability: as tie benefits go

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[40] *Id.* at 29.

[41] *Id.* at 31.

[42] *Id.* at 31-32 (citing Tie Benefits Revisions Filing, Brandien Test. at 4, 17).

[43] *Id.* at 34.

up, the Installed Capacity Requirement goes down, and in turn, reliability risk increases.[44] Hydro Québec states that no party has opposed approval of ISO-NE's proposal, at least on an interim basis, and therefore, the proposal should be accepted. Moreover, Hydro Québec doubts that renewing the debate over whether to increase tie benefits will serve any useful purpose. Hydro Québec argues that capacity buyers, who benefit from a higher tie benefits value because they can purchase less capacity, "should not be in the role of deciding how much free capacity to give themselves."[45]

4. Commission Determination

39. The Commission finds that ISO-NE's proposed methodology for calculating tie benefits for the third annual reconfiguration auction using the "at criterion" methodology is just and reasonable. As the parties recognize, tie benefits are an important part of the Installed Capacity Requirement calculation, since they reduce the Installed Capacity Requirement, and, thus, the amount of capacity purchased in the FCM for the commitment period. Accordingly, it is important that the methodology for calculating tie benefits reflect capacity that will be available from neighboring control areas, so that ISO-NE will procure sufficient capacity in the FCM to ensure the reliable operation of the system. ISO-NE has demonstrated that the "at criterion" methodology produces a level of tie benefits that will be available and deliverable from neighboring control areas. As explained by ISO-NE in the Tie Benefits Revisions Filing, this approach accepts and assumes that an external control area's resource planners will achieve the reliability target of 0.1 days per year loss of load expectation, so we agree with ISO-NE that it can be confident that the capacity necessary to meet this target is appropriate to use in determining tie benefits. We see no reason here to depart from the Commission's previous reasoning in the Tie Benefits Order that the "at criterion" methodology is a just and reasonable method of calculating tie benefits.[46]

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[44] Hydro Québec Answer at 3; *see also* Tie Benefits Revisions Filing, Brandien Test. at 17-18.

[45] *Id.* at 3.

[46] The Tie Benefits Order found the "at criterion" methodology to be just and reasonable for the third annual reconfiguration auctions for the 2010/2011 and 2011/2012 Capacity Commitment Periods. Additionally, under the current market rules, ISO-NE calculates tie benefits for the primary FCA by modeling all interconnected control areas "at criterion." The resulting tie benefits value is utilized in the Installed Capacity Requirement calculation for the first and second annual reconfiguration auctions.

40. Parties opposing the "at criterion" methodology principally object to ISO-NE abandoning the "as is" methodology for the last reconfiguration auction in favor of a methodology that these protestors believe is too conservative. However, as noted in the Tie Benefits Order, all parties have agreed that the application of an "as is" approach would have resulted in unacceptably high tie benefits values.[47] While an adjustment to the "as is" methodology could be an appropriate solution to address the negative implications for reliability recognized in the Tie Benefits Order,[48] any tie benefits calculation methodology must accurately reflect capacity that will be available from neighboring control areas. As we previously noted, the "at criterion" methodology has been shown to do so and is therefore a just and reasonable methodology for calculating tie benefits.

41. In addition, we are not persuaded by National Grid's arguments in favor of using the "as is" methodology to calculate tie benefits with a 2,320 MW cap. While National Grid supports this alternative proposal as balancing the competing goals of reliability and reasonable costs, the Commission has recognized that a proposed tie benefits value cannot be based on these considerations alone.[49] It is not clear how the 2,320 MW cap was calculated or how it represents a level of tie benefits that will be available and deliverable from neighboring control areas in an emergency.

42. Additionally, while NESCOE and National Grid refer to ISO-NE and NYISO's joint efforts concerning inter-regional interchange scheduling as additional support for using less conservative assumptions in the third annual reconfiguration auction, we find no reason to revise the calculation of tie benefits on that basis. It is possible that the ongoing stakeholder discussion between ISO-NE and NYISO will lead to changes that will permit an even more refined calculation of tie benefits; however, we note that this process is still in its initial stages.

43. We further find that the cost analysis set forth in the Brattle Report satisfies the requirement in the Tie Benefits Order that ISO-NE provide "the analysis requested by some stakeholders in connection with alternative proposals, with detailed explanations of reliability needs, estimated emergency events, and cost implications of options."[50]

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[47] Tie Benefits Order, 130 FERC ¶ 61,105 at P 73.

[48] In fact, in that proceeding, ISO-NE noted that it did not advocate that the "as is" methodology be eliminated in favor of the "at criterion" methodology. *See* Tie Benefits Order, 130 FERC ¶ 61,105 at P 75.

[49] *See id.* P 87.

[50] *Id.* P 81.

Contrary to protestors' assertions, the Tie Benefits Order did not require ISO-NE to provide this information in a particular form and, indeed, many parties to this proceeding have commended ISO-NE's efforts to provide such information.[51] The Brattle Report provides useful information on the cost impacts of potential alternatives; the fact that it does not address a specific alternative, or might not have been provided to stakeholders earlier, does not make it deficient, given that ISO-NE provided information throughout the stakeholder process.[52]

44. For the reasons set forth above, we find ISO-NE's proposal to use the "at criterion" methodology for the third annual reconfiguration auction to be just and reasonable, and we will therefore accept it. With regard to concerns that ISO-NE should continue to refine the tie benefits calculation, we note that nothing in this order prevents such efforts.

C. Calculation of the Tie Benefits for Individual Interconnections or Groups of Interconnections

1. ISO-NE Proposal

45. ISO-NE proposes to expand the tie benefit calculation process to include the calculation of tie benefits for individual interconnections or groups of interconnections, as long as a discrete and material transfer capability can be identified for the interconnection or group of interconnections.[53] ISO-NE explains that this will allow it to more accurately establish the resource needs and limitations within load zones, which are ultimately reflected in the Local Sourcing Requirement and Maximum Capacity Limits for those load zones.[54]

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[51] *See, e.g.*, National Grid Comments at 4; NESCOE Comments at 4-5; Maine and New Hampshire Commissions Protest at 9.

[52] Additionally, we note that the one specific alternative voted on by the Participants Committee, National Grid's alternative proposal, was not finalized until the day before the December 10, 2010 Participants Committee meeting.

[53] Tie Benefits Revisions Filing at 21.

[54] *Id.* at 22. The ISO-NE Tariff defines the Local Sourcing Requirement as the minimum amount of capacity that must be located within an import-constrained load zone, and the Maximum Capacity Limit as the maximum amount of capacity that can be procured in an export-constrained load zone to meet the Installed Capacity Requirement. *See* Tariff § I.2.2.

46. ISO-NE proposes to allocate the expected tie benefits from a neighboring control area to each of the external interconnections or groups of interconnections that interconnect the control area with New England. Specifically, the expected tie benefits contribution from each interconnection or group of interconnections will be calculated by averaging together the results of various probabilistic simulations that represent the contribution of the targeted interconnection or group of interconnections under different modeling states. According to ISO-NE, each state represents a different interconnection scenario for New England and the interconnections with neighboring control areas, which, when averaged together, show the relative contribution of the target interconnection or group of interconnections to New England's tie benefits. ISO-NE notes that if the sum of the tie benefits from all interconnections or groups of interconnections from a neighboring control area is greater than the tie benefit value calculated for that control area, the tie benefits will be prorated.

47. Further, ISO-NE states that, in calculating the tie benefits of individual interconnections or groups of interconnections, the transfer capability of all interconnections with New England will be determined using ISO-NE's most recent transmission transfer capability analysis as calculated pursuant to the current ISO-NE Operating and Planning Procedures (currently located in ISO New England Planning Procedure PP-3).

2. Positions of the Parties

48. The Joint Parties protest ISO-NE's proposed methodology for the calculation of tie benefits for individual interconnections, asserting that several key assumptions are either flawed, or not fully disclosed. The Joint Parties posit that the "primary flaw in ISO-NE's proposed calculation is the introduction and application of a transmission transfer capability 'test.'"[55] The Joint Parties question why ISO-NE would use this test to establish a transfer capability for individual ties as opposed to utilizing the Total Transfer Capability ratings for such facilities.

49. The Joint Parties also question the specific planning procedure that ISO-NE intends to use for calculating individual transfer capabilities. The Joint Parties note that the transmittal letter accompanying the Tie Benefits Revisions Filing references ISO-NE Planning Procedure PP-3. However, the Joint Parties state that "the Commission has found that an Independent System Operator (ISO) must include all elements of a

[55] Joint Parties Protest, Rotger Test. at 11.

calculation methodology that have a material effect on the rates, terms, and conditions of service in the Tariff itself, and not in an ISO manual or procedure."[56]

50. Additionally, the Joint Parties assert that, based on one study that ISO-NE has developed for the Cross Sound Cable (CSC) merchant transmission line transfer capability, ISO-NE Planning Procedure PP-3 is a deterministic analysis. The Joint Parties assert that the Commission has previously stated that emergency assistance is a "concept associated with probability [or probabilistic] analysis."[57] As set forth by the Joint Parties, a deterministic analysis is unrealistic because it evaluates tie benefits based on a single scenario, failing to capture the full range of operating conditions that may trigger the need for emergency assistance.

51. The Joint Parties assert that the actual calculation of individual tie benefits by ISO-NE to determine the 2014/2015 Installed Capacity Requirement demonstrates the significant flaws in the proposed methodology.[58] Specifically, the Joint Parties note that this study concluded that there is 0 MW of import capability over the CSC; thus, the tie benefits value for the CSC is 0 MW. In addition to questioning ISO-NE's use of a deterministic approach, the Joint Parties question several other assumptions used in ISO-NE's study.[59] Further, the Joint Parties assert that ISO-NE has routinely recognized the reliability support that the CSC provides. The Joint Parties also state that ISO-NE will not calculate an individual tie benefit for the Northport-Norwalk Cable (NNC).[60] The

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[56] Joint Parties Protest at 20 (citing *PJM Interconnection L.L.C.*, 117 FERC ¶ 61,219, at P 43 (2006); *KeySpan Ravenswood, Inc. v. N.Y. Indep. Sys. Operator, Inc.*, 99 FERC ¶ 61,167, at 61,679-80 (2002)).

[57] *Id.* at 21 (citing *N.Y. Indep. Sys. Operator, Inc.*, 127 FERC ¶ 61,318, at P 68 (2009)). A probabilistic assessment takes into account the possibility of randomness through the use of probability distributions, whereas a deterministic assessment has no probabilistic considerations and assumes complete predictability.

[58] ISO-NE has not filed the values resulting from the application of this calculation with the Commission.

[59] These assumptions include (1) ISO-NE's use of a proxy generator unit interconnecting at a 345 kV/115 kV substation even though the CSC only connects to the 345 kV system; and (2) the attribution of all available energy at this import point, under all scenarios, to a 35-year-old, oil-fired steam turbine unit with very low capacity factors and a significant ramp time rather than the CSC.

[60] The NNC is a 138 kV alternating current submarine cable that extends approximately 12 miles under the Long Island Sound from the Northport Electric

(continued…)

Joint Parties question ISO-NE's determination that the NNC does not have a "discrete and material transfer capability," since it has separately posted Available Transfer Capacity and Total Transfer Capability values, is a phase-angle regulator controlled facility over which ISO-NE separately schedules transmission service, and is explicitly acknowledged in the ISO-NE/NYISO Coordination Agreement as a facility over which emergency assistance may be provided.

52. According to the Joint Parties, ISO-NE's proposed methodology will significantly understate the availability of emergency assistance over individual interconnections, depressing the award of tie benefits to these facilities and artificially inflating the Installed Capacity Requirement and Local Sourcing Requirement used in the FCM. The Joint Parties state that this will harm New England consumers, as well as send the wrong signal regarding transmission investment. Moreover, the Joint Parties question whether ISO-NE is treating other interconnections and sources comparably.[61] Therefore, the Joint Parties request that the Commission set for hearing the proposed methodology for the calculation of tie benefits for individual interconnections. Alternatively, the Joint Parties request that the Commission direct ISO-NE to adopt a probabilistic assessment of interconnection transfer capabilities.

3. Answers

53. In its answer, ISO-NE argues that the tariff revisions submitted in the Tie Benefits Revisions Filing describe, in reasonable detail, how tie benefits for individual interconnections will be determined. Moreover, ISO-NE states that additional supporting detail will be provided when a filing with specific values is submitted. Specifically, ISO-NE states that its proposed methodology for calculating tie benefits for individual interconnections is a direct extension of the Commission-approved tie benefits calculation methodology used at the system-wide level.[62] Moreover, additional details and assumptions regarding how each interconnection will be evaluated and treated, to the extent those details "significantly" affect rates, terms, and conditions, will be filed when

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Generating Station in Suffolk County, New York to Norwalk Harbor, Connecticut. The NNC has a capacity of 286 MW in either direction.

[61] Joint Parties Protest at 24-25, 29. According to Mr. Rotger, it appears that ISO-NE is essentially grandfathering approximately 700 MW of tie benefits for the existing Maine Electric Power Company tie. Joint Parties also note the long-standing grant of Interconnection Capability Credits to the New England/Hydro-Québec Phase II HVDC Interconnection.

[62] ISO-NE February 9 Answer at 12.

the Installed Capacity Requirement and related values for a specific Capability Year are filed with the Commission under section 205 of the FPA.[63]

54. ISO-NE further states that the Joint Parties' assertions regarding the calculations of the transfer capability for the CSC and NNC are not at issue in this proceeding. ISO-NE states that challenging its calculations at this time is premature, given these calculations are not at issue and it has not filed them or an explanation of their derivation with the Commission.[64]

55. ISO-NE further disputes assertions that its evaluations of interconnection transfer capabilities for tie benefits calculations are discriminatory. ISO-NE states that the evaluations establish the transfer capability of each interconnection (or group of interconnections) given the load, resource, and other electrical system conditions that are expected to exist at the time of the Capability Year for which the calculation is being performed. While it does not believe evaluations are properly at issue in this proceeding, ISO-NE asserts that the Joint Parties' claims of discrimination are incorrect for multiple reasons: (1) the full capability of an interconnection may not be fully deliverable to New England under anticipated load, resource, and electric system conditions, which results in a value less than the full operating limit of the interconnections likely to be used in calculating tie benefits; (2) the transfer capability analysis performed for the CSC to examine the capability to move power from New York to New England during the simultaneous operation of generation resources on the New England side of the interconnection reveals that transmission system limitations in the vicinity of the Connecticut terminal of the CSC have been found to prevent the CSC from providing an incremental capacity benefit to the system; and (3) the NNC and the remaining alternating current New York-New England interconnections are evaluated for tie benefits as a single interconnection because of interdependencies in the operation of these interconnections.[65]

56. ISO-NE also states that the Joint Parties' suggestion to use an alternate methodology for determining the transfer capability of interconnections is not relevant to whether the Tie Benefits Revisions Filing here is just and reasonable. Furthermore, ISO-NE argues that the Joint Parties appear to be conflating the calculation of tie benefits for individual interconnections with the determination of the transfer capability of

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[63] *Id.* at 8, 12.

[64] *Id.* at 14.

[65] *Id.* at 16-17.

interconnections, which is just one of many inputs into the tie benefits calculation.[66] ISO-NE further disputes arguments that the proposed methodology for calculating tie benefits for individual interconnections is a deterministic calculation; ISO-NE describes it as a probabilistic calculation methodology that uses assumptions and inputs about transmission system capability.[67] Additionally, ISO-NE argues that the Joint Parties' proposal was not brought up during the stakeholder process and would require significant time and effort to evaluate since it is simply the outline of a calculation methodology.

57. Finally, ISO-NE responds to arguments concerning certain aspects of the transfer capability analysis, i.e., the use of a single set of assumptions about load conditions, system operating conditions, and a limited set of dispatch scenarios. ISO-NE states that these matters can and should be addressed when ISO-NE provides its analysis of transfer capability determinations as part of the stakeholder process, and then through its Installed Capacity Requirement values filing for the relevant Capability Year.

4. Commission Determination

58. Based upon the record as a whole, we find that ISO-NE's proposal for calculating tie benefits for individual interconnections or groups of interconnections is just and reasonable. However, we also find that certain details of this methodology, which ISO-NE states are included in its manuals, should be incorporated into section III.12 of Market Rule 1. Therefore, as discussed below, we will require ISO-NE to submit a compliance filing that reflects the methodology in revised tariff sheets.

59. The transfer capability of an individual interconnection or group of interconnections represents an input into the tie benefits calculation process. Contrary to protestors' arguments, it is reasonable to set this input to a level that represents practical operational limits for the purpose of establishing tie benefits, accounting for resource and load conditions that are expected to exist in the Capability Year. As noted in the Tie Benefits Revisions Filing[68] and ISO-NE's answer,[69] ISO-NE currently determines a transfer capability level for the Hydro Québec Phase II HVDC Interconnection, setting the capability of this facility to its practical operational limit for the purpose of establishing tie benefits.

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[66] *Id.* at 18.

[67] *Id.* at 19 (citing Tie Benefits Revisions Filing at 9).

[68] *See* Tie Benefits Revisions Filing at 21.

[69] *See* ISO-NE February 9 Answer at 14-15.

60. We reject arguments that ISO-NE should be required to utilize a probabilistic analysis for the calculation of transfer capability of an individual interconnection or group of interconnections. The tie benefits calculation for individual interconnections or groups of interconnections will make use of probabilistic simulations, as explained in Mr. Karl's testimony.[70] Transfer capability represents an input parameter that appropriately factors into these probabilistic simulations but not the tie benefit value itself, as explained in ISO-NE's answer.[71] Additionally, section III.12.9 of Market Rule 1 already specifies that tie benefits "shall be calculated using a probabilistic multi-area reliability model."

61. We also reject the argument by Joint Parties that ISO-NE has not sufficiently explained the methodology by which it intends to calculate transfer capabilities. As ISO-NE states in its transmittal letter, the procedures for transfer capability analysis are currently contained in ISO-NE's Planning Procedure PP-3, Reliability Standards for the New England Area Bulk Power Supply System in ISO-NE's Operating and Planning Procedures.[72] While the proposed revisions to section III.12.9.2.4.A of Market Rule 1 incorporate Planning Procedure PP-3 by reference, stating that transfer capability will be determined "pursuant to the current [ISO-NE] Operating and Planning Procedures," we do agree with Joint Parties that such details must be explicitly stated in the Tariff. Therefore, we will require ISO-NE to submit within 30 days of the date of this order revised tariff sheets that directly state the methodology for determining transfer capabilities for the purpose of establishing tie benefits in section III.12.1 of Market Rule 1.

62. Finally on this issue, the Joint Parties question various assumptions used by ISO-NE in its preliminary calculations of tie benefits for the CSC and the NNC, including ISO-NE's determination of whether a "discrete and material transfer capability" is identified for the interconnection or group of interconnections. We reject as beyond the scope of this proceeding arguments concerning the treatment and modeling of the CSC and the NNC, and specific tie benefit values for those interconnections. The tie benefit values related to the CSC, NNC, or any other individual interconnections have not been filed by ISO-NE here. Instead, the details and assumptions used to calculate tie benefits will be discussed in the stakeholder process that addresses the calculation of the Installed Capacity Requirement and related values for each FCA and annual reconfiguration auction, and then filed with the Commission in an Installed Capacity Requirements values filing. We find that such a proceeding is the appropriate forum to address Joint

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[70] Tie Benefits Revisions Filing, Karl Test. at 36.

[71] *See* ISO-NE February 9 Answer at 18-19.

[72] Tie Benefits Revisions Filing at 22.

Parties' specific concerns. We expect ISO-NE to include the relevant details and assumptions used to establish tie benefits in its Installed Capacity Requirements values filing, and ISO-NE has committed to do so in its answer.[73]

D. Modeling Transmission Constraints Internal to New England and Neighboring Control Areas

1. ISO-NE Proposal

63. In calculating tie benefits, ISO-NE proposes to model transmission constraints in New England that have been identified in the latest Regional System Plan, since these constraints can ultimately impact the ability to utilize emergency energy assistance from neighboring control areas.[74] However, ISO-NE will not model transmission constraints that are already modeled in a Local Sourcing Requirement or Maximum Capacity Limit calculation in order to avoid the risk of double counting the impacts of such constraints in the Installed Capacity Requirement.[75]

64. ISO-NE also proposes to model transmission constraints that are internal to a neighboring control area if NPCC models the constraint in its annual analysis of conditions in the NPCC control areas, and if ISO-NE determines that the constraint is critical to the neighboring control area's ability to reliably provide tie benefits to New England from operational and planning perspectives. To determine which interfaces are critical, ISO-NE will perform probabilistic simulations using the GE MARS program. However, ISO-NE will not model such a constraint if doing so would increase the modeled level of tie benefits from that control area above that which would otherwise be obtainable if no constraints were modeled for the control area, since modeling external

[73] *See* ISO-NE February 9 Answer at 8.

[74] Tie Benefits Revisions Filing at 18.

[75] ISO-NE explains that, for an import-constrained load zone, the Local Sourcing Requirement determines the amount of capacity that must be located within that zone given both the import constraint and the level of tie benefits that have been calculated for the relevant Installed Capacity Requirement calculation. For an export-constrained load zone, the Maximum Capacity Limit determines the amount of capacity that can be purchased from the export constrained load zones given the export constraints and the level of tie benefits that have been calculated for the relevant Installed Capacity Requirement calculation. Tie Benefits Revisions Filing at 18-19.

constraints is intended to represent factors that limit the ability to obtain tie benefits from the control area.[76]

2. Positions of the Parties

65. The Joint Parties protest ISO-NE's proposal to exclude constraints internal to New England that were previously addressed by a Local Sourcing Requirement or a Maximum Capacity Limit calculation from its tie benefits calculation. Although ISO-NE cites the risk of double-counting the impact of such constraints, the Joint Parties assert that ISO-NE has already accounted for the risk of double-counting by providing for the addition or removal of capacity to sub-areas created by an internal transmission constraint based on the loss of load expectation equaling 0.1 days per year.[77]

66. The Joint Parties also protest ISO-NE's proposal to model only selected transmission constraints internal to neighboring control areas. The Joint Parties state that the proposed tariff revisions contain no criteria or information concerning the mechanism by which ISO-NE will evaluate and identify critical interfaces. The Joint Parties state that there is no need for ISO-NE to second-guess NPCC; such an approach merely introduces further inaccuracies to the calculation of tie benefits.

67. NESCOE states that ISO-NE's requirement to exclude any transmission constraints in external control areas if such constraints would increase the value of tie benefits in its calculation is not realistic and requires further consideration by ISO-NE and stakeholders. NESCOE argues that symmetrical modeling would produce a more realistic representation of tie benefit values than ISO-NE's asymmetrical approach.[78]

3. Answers

68. In response to the Joint Parties and NESCOE, ISO-NE states that the intent of modeling internal constraints in New England and in neighboring control areas is to represent limitations on the way in which energy can flow into New England from neighboring control areas, as well as limitations on the ability of New England to utilize energy during emergencies once it reaches New England.

69. ISO-NE states that the Joint Parties are incorrect when they state that the risk of double-counting the impacts of a constraint internal to New England is addressed in the

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[76] *Id.* at 19.

[77] Joint Parties Protest at 26 (citing proposed Tariff § III.12.9.2.5).

[78] NESCOE Comments at 8.

section III.12.9.2.5 provisions.[79] ISO-NE states that the methodology for assessing constraints differs between the Local Sourcing Requirement and Maximum Capacity Limit calculations on the one hand and the tie benefits calculation on the other. ISO-NE explains that when modeling constraints for the tie benefits calculation, all sub-areas and related interfaces are modeled simultaneously, which captures the impacts of the most constrained interfaces simultaneously. Whereas in the Local Sourcing Requirement and Maximum Capacity Limit calculations, the impact of each constraint is accounted for separately. Therefore, according to ISO-NE, to avoid the risk of double-counting the constraint impacts of interfaces that are captured through the Local Sourcing Requirement and Maximum Capacity Limit calculations, the latter must be excluded from the modeling of constraints for the tie benefits calculations.

70. ISO-NE addresses NESCOE's argument regarding the asymmetrical treatment of constraints that would increase tie benefits and states that NESCOE's argument disregards reasonable assumptions about the availability of any resulting surplus to New England. ISO-NE argues that, just like it is not reasonable to assume that ISO-NE can rely on the availability of surplus capacity within a neighboring control area, ISO-NE cannot rely on the availability of surplus capacity within a sub-area of a neighboring control area because there is no guarantee that the neighboring control area will commit its system in a way that will make its surplus available to New England in the case of an emergency.[80]

71. In response to the Joint Parties' argument against ISO-NE's proposed evaluation regarding which interfaces are most critical to the ability to deliver tie benefits, ISO-NE states that this evaluation is applied to determine which of the modeled constraints contribute towards an increase in tie benefits and is performed through conducting probabilistic simulations using different constraint configurations.[81]

4. Commission Determination

72. We accept ISO-NE's proposal to model transmission constraints internal to New England and internal to neighboring control areas in calculating tie benefits, since this process will result in tie benefits values that more accurately reflect the operational and deliverability constraints that are likely to impact the actual availability of tie benefit support to New England.

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[79] ISO-NE February 9 Answer at 21.

[80] *Id.* at 24.

[81] *Id.*

73. We reject the Joint Parties' argument that ISO-NE should not exclude internal constraints that were previously addressed by a Local Sourcing Requirement or a Maximum Capacity Limit calculation from its tie benefits calculation. ISO-NE proposes to exclude such constraints in order to prevent them from being double-counted in the Installed Capacity Requirement. We disagree with the Joint Parties' assertion that the risk of double counting has already been addressed by proposed Tariff section III.12.9.2.5, which sets forth the procedures for adding or removing capacity from control areas to meet the 0.1 days per year loss of load expectation standard. As ISO-NE explains in its answer, the impact of each constraint is accounted for separately in the Local Sourcing Requirement and Maximum Capacity Limit calculations.[82] In contrast, proposed Tariff section III.12.9.2.5 models all sub-areas and related interfaces simultaneously, which captures the impacts of the most constrained interfaces simultaneously. Thus, the constraints captured in the tie benefits calculation methodology may or may not be the same constraints captured by the Local Sourcing Requirement and Maximum Capacity Limit calculations. Accordingly, it is necessary to exclude constraints that are captured through the Local Sourcing Requirement and Maximum Capacity Limit calculations to ensure that these constraints are not double counted in the Installed Capacity Requirement calculation. Excluding the constraints modeled by the Local Sourcing Requirement and Maximum Capacity Limit from the tie benefits calculation will allow ISO-NE to maximize tie benefits capability for the ISO-NE area, while also accounting for reliability. Including the above constraints may limit the tie benefits calculation for the ISO-NE area, which may not accurately reflect the tie benefit capability to the ISO as a whole.

74. The Joint Parties and NESCOE also question ISO-NE's proposal not to model transmission constraints that are internal to a neighboring control area if doing so would increase the modeled level of tie benefits from that control area.[83] We reject their arguments on this point. The purpose of modeling such transmission constraints is to reflect the actual availability of tie benefit support to New England. However, a constraint that increases tie benefits values does not necessarily mean that the additional surplus capacity will be available to New England. As set forth in the testimony of Mr.

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[82] *Id.* at 22.

[83] Although the Joint Parties protest ISO-NE's statement that it will determine whether a constraint is critical to the neighboring control area's ability to reliably provide tie benefits to New England, ISO-NE explains that this issue also deals with the exclusion of constraints that would contribute toward an increase in tie benefits. ISO-NE's evaluation is applied to determine which of the modeled constraints contribute toward an increase in tie benefits. *See* ISO-NE February 9 Answer at 24.

Karl, it is reasonable to believe that "the neighboring Control Area will take steps to remove or limit the impact of the constraint so that the surplus can be utilized internally. Alternatively, if the constraint is not removed, there can be no guarantee that the surplus will be available for use as emergency assistance."[84]

E. Modeling Control Areas Not Directly Connected to New England

1. ISO-NE Proposal

75. ISO-NE determined not to expand modeling to include the complete modeling of system conditions in the PJM Interconnection, L.L.C. (PJM) and Ontario control areas. According to ISO-NE, the successful delivery of emergency energy from control areas not directly interconnected with New England is unknown and untested, and quantifying the amount of any such increase in emergency assistance would be difficult given that the impacts are wholly secondary. Further, ISO-NE notes that estimates developed using basic simulations indicate that, even if accurate values could be calculated, modeling PJM and Ontario would result in only minimal incremental increases to total tie benefits.

2. Positions of the Parties

76. NESCOE proposes that ISO-NE and stakeholders revisit modeling the Ontario and PJM control areas in no more than three years. NESCOE believes that conditions might change where ISO-NE would be more able to accurately quantify the amount of emergency assistance those areas would be able to provide. NESCOE asks that the Commission direct ISO-NE to review modeling these areas within the next three years and report the conclusions of that process to the Commission.[85]

3. Answer

77. In its answer, ISO-NE states that it explained in the Tie Benefits Revisions Filing why modeling Ontario and PJM would not be fruitful at this time. Additionally, ISO-NE states that, if circumstances change, it will revisit this decision with stakeholders.[86]

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[84] Tie Benefits Revisions Filing, Karl Test. at 31.

[85] NESCOE Comments at 8-9.

[86] ISO-NE February 9 Answer at 36.

4. Commission Determination

78. ISO-NE has determined not to expand modeling to include control areas not directly connected to New England, noting that doing so would be complex and would likely result in only minimal incremental increases to total tie benefits. We agree. With regard to NESCOE's argument that ISO-NE should revisit this issue in the stakeholder process in no more than three years, we note that ISO-NE has committed to revisit this issue if conditions change.[87]

F. Accounting for Capacity Imports and Changes in Transmission Import Capability

1. ISO-NE Proposal

79. ISO-NE states that the tie benefits calculation methodology must account for capacity imported from neighboring control areas under firm commitments in the FCM to ensure that there is transmission capability on the interconnections available both for capacity imports and the assumed level of tie benefits. Currently, capacity imports are deducted from the transfer capability of the interconnections before tie benefits are calculated, so that the transfer capability for tie benefits is limited to the space available after capacity imports are deducted.[88] However, ISO-NE states that this approach results in a methodological inconsistency: tie benefits are calculated after capacity imports are deducted from the transfer capability of the existing interconnections, but the FCM limitation on capacity imports restricts such imports to the transfer capability of the interconnection after accounting for tie benefits.[89]

80. Accordingly, ISO-NE proposes that, for the primary FCA and the third annual reconfiguration auction, the tie benefits values for each control area and the tie benefits values for each individual interconnection or group of interconnections will be adjusted after the initial tie benefits calculation to account for capacity imports that would lower the import capability available for transferring emergency assistance. For the first and second annual reconfiguration auctions, ISO-NE proposes that any changes in the import capability of an interconnection or group of interconnections for which tie benefits are being calculated will be factored into the adjustments to the tie benefits after accounting

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[87] *Id.*

[88] Tie Benefits Revisions Filing at 23.

[89] *Id.* at 24.

for all the capacity imports that have capacity supply obligations for the capacity commitment period of interest.

2. Commission Determination

81. We accept ISO-NE's proposal to adjust tie benefits values to account for capacity imports after the initial tie benefits calculation, since this will produce a more accurate representation of the way in which capacity imports impact the remaining transfer capability of an interconnection available for tie benefits. In making this determination, we note that no protestors have taken issue with this aspect of the Tie Benefits Revisions Filing.

The Commission orders:

(A) ISO-NE's proposed tariff revisions are hereby accepted for filing, to become effective March 1, 2011, subject to condition, as discussed in the body of this order.

(B) ISO-NE is hereby directed to submit a compliance filing within 30 days of the date of this order, as discussed in the body of this order.

By the Commission.

(S E A L)

Nathaniel J. Davis, Sr.,
Deputy Secretary.