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NORTHEASTERN ISO/RTO

PLANNING COORDINATION PROTOCOL
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1. Introduction

The Northeastern ISO/RTO Planning Coordination Protocol (“Protocol”) describes the foundation for processes and procedures through which coordination of system planning activities will be implemented by the ISOs and RTOs of the northeastern United States and Canada. The parties to this Protocol are PJM Interconnection, L.L.C. (“PJM”), the New York Independent System Operator, Inc. (“NYISO”), and ISO New England Inc. (“ISO-NE”) (collectively, “Parties” and individually, a “Party”). Ontario’s Independent Electricity Market Operator (“IMO”), Hydro-Quebec (TransEnergie) and New Brunswick Power are not Parties to this Protocol but have agreed to participate, at their convenience, in the data and information exchange process set forth in Section 3 of this Protocol, and in regional planning studies for projects that may have interregional impact to ensure better coordination in the development of the interconnected power system. This could include participation in studies of interconnection requests and studies of long-term firm transmission service requests. The Canadian entities are not participating in any sharing of the costs, as proposed under this Protocol, of future system upgrades or modification.

This Protocol addresses the processes and activities that are jointly engaged in by PJM, NYISO, and ISO-NE. It does not preclude or govern voluntary bilateral planning activities that may arise from time to time in the course of regional planning. In addition, any conflict between provisions of this Protocol and any more specific bilateral agreements of the Parties would be resolved in favor of the FERC-approved bilateral agreement provisions.

The overall goal of the Protocol is to contribute to the on-going reliability and the enhanced operational and economic performance of the Parties’ regions through coordinated planning. The planning activities of the Parties shall be conducted consistent with the planning criteria of each region's reliability organization(s), as well as each region's relevant local reliability rules.

This Protocol describes:
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- structures and functions of the two committees that implement the Protocol’s procedures (Section 2);
- data and information to be exchanged among the Parties, and the procedures by which the exchange is undertaken (Section 3);
- procedures utilized to coordinate the evaluation of certain interconnection and transmission service requests (Sections 4 and 5);
- procedures for conducting periodic comprehensive interregional assessments (Section 6);
- procedures for identification and evaluation, pursuant to the requirements of FERC Order 1000, of potential interregional transmission projects\(^1\) that can address regional needs in a manner that is more efficient or cost-effective than separate regional solutions (Section 7);
- contents of the Northeast Coordinated System Plan (“NCSP”) prepared pursuant to the Protocol (Section 8);
- means by which costs are allocated among the Parties, including the costs of Interregional Transmission Projects approved under the procedures described in Section 7 (Section 9); and
- mechanisms for the resolution of disputes among the Parties and other general provisions (Section 10).

This Protocol is cross-referenced, with a brief overview and links to the Protocol, in each Party’s applicable FERC filed documents.

2. Committee Structure and Responsibilities

This section defines the committee structures and responsibilities established in support of the comprehensive process of coordinating system planning activities through the Protocol.

The committee structures established under this Protocol include:

- a Joint ISO/RTO Planning Committee; and
- an Interregional Planning Stakeholder Advisory Committee.

2.1 Joint ISO/RTO Planning Committee

The Joint ISO/RTO Planning Committee (“JIPC”) is comprised of representatives of the Parties, and (a) coordinates interregional planning activities, (b) identifies and facilitates resolution of issues related to the interregional planning process, and (c) undertakes the activities described in Sections 6 and 7 of this Protocol. The JIPC shall be charged with the following responsibilities:

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\(^1\) As used herein, “Interregional Transmission Project” shall mean a transmission project that will be located within two or more neighboring transmission planning regions. The transmission planning regions referred to herein are those administered by the respective Parties.
Coordinating planning activities under this Protocol, including the development of procedures, as necessary, the conduct of planning analyses, the identification and evaluation of Interregional Transmission Projects for regional consideration by each Party as required by FERC Order No. 1000 as described in Section 7 hereof, and the production of the NCSP;

Communicating information related to the coordinated planning process, including identification and approval of a Party’s materials produced under this Protocol to be posted on each other Party’s website and maintenance of required e-mail lists; Information relating to interregional coordination and studies conducted in accordance with this Protocol shall be clearly identified and posted on each Party’s website subject to confidentiality and Critical Energy Infrastructure Information (“CEII”) restrictions of each respective region;

Meeting, and holding joint meetings, with the Interregional Planning Stakeholder Advisory Committee (“IPSAC”), on at least a semi-annual basis to review and coordinate system planning activities;

Facilitating the review by any federal or provincial agency of elements of the NCSP;

Facilitating the review by multi-state entities, regional state committees, state, provincial, or other similarly situated entities, of new interregional transmission facility additions;

Establishing a schedule for the rotation of responsibility for data management, coordination of stakeholder meetings, coordination of joint analysis activities, report preparation, and other activities;

Pursuing opportunities for improving the effectiveness of interregional coordination efforts under the Protocol;

Establishing, as appropriate, ad hoc committees to resolve specific interregional planning coordination issues. Such ad hoc committees may be comprised of representatives of the JIPC, the affected transmission owners, and other interested parties (as described in Section 2.2); and

Establishing working groups as necessary to provide adequate development and review of the NCSP. Where practical, the JIPC shall utilize existing working group and committee structures in support of interregional planning activities.

Each Party shall name a representative and an alternate to the JIPC and a person with primary responsibility for all coordinated interregional system planning analyses performed under this Protocol.

The Chair of the JIPC shall be rotated among the Parties. The Chair shall be responsible for the administration of JIPC meetings.

Each Party shall be responsible for its own costs to support the activities of the JIPC.
2.2 Interregional Planning Stakeholder Advisory Committee

The IPSAC’s purpose is to allow for stakeholder review and input to: (a) coordinated interregional system planning activities; (b) JIPC activities under Sections 6 and 7 of this Protocol; and (c) modifications to the interregional coordination procedures reflected in this Protocol.

The members of the IPSAC include the advisory committees of the Parties, market participants within the regions of the Parties, governmental agencies, regional state committees, provincial entities, regional reliability councils, and any other party with an interest in the coordination of planning being addressed by the IPSAC. Access to IPSAC meeting confidentiality and CEII materials shall be controlled as specified further in Section 3.6.

The IPSAC shall meet:

- to provide input into the JIPC’s review of regional needs and solutions to identify potential Interregional Transmission Projects pursuant to FERC Order 1000 as specified in Section 7 hereof;
- to provide input regarding the nature of the assessments and studies to be performed under Section 6 hereof;
- prior to the start of each cycle of the coordinated planning process to review and provide input on the scope of analysis and assumptions upon which the development of the NCSP shall be based;
- following posting of the JIPC’s draft evaluation of Interregional Transmission Projects proposed in the respective regional planning processes pursuant to FERC Order 1000 requirements, as discussed in Section 7 hereof; and
- at least once during the development of the NCSP to review and provide feedback on the preliminary results of the coordinated system planning analysis and to provide feedback on sensitivity analyses that may be required.

The JIPC shall advise IPSAC on completion of the NCSP and other JIPC-coordinated planning analyses.

Administrative costs of public meetings and related activities shall be borne on a rotating basis by the Parties.

3. Data and Information Exchange

This section defines the ongoing process by which data and information are shared among the Parties in support of the process of coordinating regional system planning activities, as well as for joint evaluation of Interregional Transmission Projects. In addition to identifying the data and information to be exchanged between the Parties, this section addresses the:

- schedule for the exchange of data and information;
- formats to be used for the exchange of data and information;
procedures for the identification and harmonization of differences in data, assumptions and models among the Parties to be used in joint evaluation of Interregional Transmission Projects and other interregional planning activities;

- procedures for the development of models and studies;

- rules and procedures to be followed with respect to the confidentiality of data and information exchanged among the Parties; and

- procedures for the identification of contact persons responsible for the exchange of data and information.

3.1 Data and Information to Be Exchanged

(a) Introduction

Each Party shall provide the others with information, as agreed by the JIPC, that may be required for the performance of reliability, economic and public policy planning studies. The Parties shall also exchange such data and information as is needed for each Party to plan its own system accurately and reliably and to assess the impact of conditions existing on the systems of the other Parties.

(b) Data Required for System Planning Analyses

Each Party shall provide the others with all data required for system planning analyses, such as data required for: production cost modeling, the development of power flow cases, short-circuit cases, and stability cases, including ten-year load forecasts and any retirements or deactivations of transmission or generation facilities. All critical assumptions that are used in the development of these cases shall be included, as well as system planning documents that may include long-term and short-term system assessments, geographical system maps, one-line and breaker diagrams, and contingency lists for use in power flow and stability analyses, including lists of all single contingency events and appropriate multiple facility common-mode contingencies consistent with the applicable criteria of the area. The specific data to be exchanged in a given planning cycle shall be determined by the JIPC depending on the anticipated scope of planning for that cycle.

(c) Data Regarding Regional Plans

Each Party shall exchange information regarding their respective regional transmission system plans, including the determination of transmission needs based upon reliability, public policy and economic considerations as well as the regional transmission solutions identified to meet those needs. This information shall be used by the JIPC to identify and evaluate Interregional Transmission Projects which may have the potential to meet the respective regional transmission needs in a more efficient or cost-effective manner, as specified in Section 7 hereof.
(d) Data Regarding Interconnection Requests

Each Party shall exchange data related to interconnection requests that are expected to affect the operation of other Parties' systems as determined pursuant to Section 4 of this Protocol.

(e) Data Regarding Transmission Service over Pertinent Interfaces

Each Party shall provide the others with information regarding long-term firm transmission service and other transmission services on all interfaces relevant to the coordination of planning among their regions.

3.2 Schedule for Exchange of Data and Information

The data and information described in this Protocol shall be exchanged on an annual basis, recognizing the varying planning cycles of the respective regions. The dates for the exchange of such data and information shall be established by the JIPC to correspond to the appropriate point in the annual planning process timeline of each Party. Reports of planning or operational analyses and evaluations shall be provided in a timely manner.

To facilitate the coordination of planning analyses, the Parties shall inform each other, as soon as practicable, of any interconnection requests that have been received and any long-term firm transmission services requests that may impact the operation of the other Parties' systems.

3.3 Data and Information Formats

To the extent practical, the maintenance and exchange of power system modeling data shall be implemented through databases. The formats of the databases exchanged shall be agreed upon by the Parties exchanging the data. Other information such as geographical system maps and one-line diagrams shall be provided in an electronic format agreed upon by the Parties exchanging the information.

3.4 Identification and Harmonization of Regional Data/Information Differences

The Parties shall identify differences in their data, models, assumptions, planning horizons and criteria to be used in joint evaluation of proposed Interregional Transmission Projects, and engage in discussions to reconcile those differences, to the extent possible. In instances where differences cannot be reconciled, other means, such as the use of scenario analysis, may be used for interregional studies. Where such differences cannot be harmonized, the Parties shall document the reasons for those differences for discussion at the IPSAC. If the Parties are unable, despite these efforts, to reconcile differences, any of the Parties may initiate use of the dispute resolution procedures of Section 10.1 of the Protocol.
3.5 Development of Models and Studies

The Parties shall, as necessary, prepare and document procedures for the development of common power system analysis models used to perform the analyses required to develop the NCSP and to assist with FERC Order 1000-related efforts specified in Section 7 hereof. Models shall be developed for necessary interregional system planning analyses such as power flow analyses, short circuit analyses, stability and production cost analyses. For studies of interconnections that are in close electrical proximity at the boundaries between the systems of the Parties, the Parties shall coordinate the development of the required power system models. Other analyses, as agreed upon by the JIPC, shall be fully coordinated among the Parties and may include areas such as resource adequacy and related studies as well as congestion studies. Changes to baseline data and updates to the power system analysis models shall be performed annually to capture all system upgrades and allow analyses to accurately identify cross border impacts. Coordination of power system analysis models shall rely upon existing working groups to the maximum extent practical.

3.6 Confidentiality of Exchanged Data and Information

All release and/or exchange of data and information shall be performed in a manner consistent with FERC CEII guidelines and procedures, any confidentiality or information release policy or agreements to which each Party may be subject, and tariffs and any other agreements.

3.7 Data Contacts

Each Party shall name a member of its staff responsible for the coordination and exchange of all data and information under this Protocol.

4. Analysis of Interconnection Queue Requests

In accordance with the respective interconnection procedures under which the Parties are providing interconnection service, each Party shall coordinate with the other Parties the conduct of any studies required for determining the impact of a request for queued generator or transmission interconnection. Results of such coordinated studies shall be included in the impacts reported to the interconnection customers as appropriate. Coordination of studies shall include the following steps:

- Once a request for interconnection is identified by the Party receiving the request ("direct connect region") as having a potential impact on another region, the direct connect region shall notify the potentially impacted region of the request, along with the information provided in the request.

- If the potentially impacted region believes that its system may be materially impacted by the interconnection, the potentially impacted region shall contact the direct connect region and shall be permitted to participate in the interconnection studies that may be performed. The Parties shall utilize screening procedures to assist in the identification of interconnection requests that may impact regions or parties other than the direct connect region.
If the direct connect region performs or contracts for the performance of any studies for the interconnection customer, the direct connect region shall contact potentially impacted regions to determine the nature and cost of any studies to be performed to test the impacts of the interconnection on the potentially impacted region and who may perform the studies. The Parties shall strive to maximize the efficiency of the coordinated study process, and exchange data as needed to facilitate the coordinated studies.

Any coordinated studies shall be performed in accordance with the study timeline requirements of the applicable interconnection procedures of the direct connect region. Both the direct connect region and the potentially impacted regions shall use their best efforts to meet the applicable study timelines. However, the direct connect region shall be responsible for satisfying the requirements of its tariff related to the interconnection request.

The potentially impacted region may participate in the coordinated study either by taking responsibility for performance of studies of its system, or by providing input to the studies to be performed by the direct connect region. The study cost estimates indicated in the study agreement between the direct connect region and the interconnection customer shall reflect the costs and the associated roles of the study participants. The direct connect region shall review the cost estimates submitted by all participants for reasonableness, based on expected level of participation and responsibilities in the study.

The direct connect region shall collect from the interconnection customer and forward to the potentially impacted regions the costs incurred by the potentially impacted regions associated with the performance of such studies.

As necessary, analysis for a potentially impacted system shall be performed, and transmission network upgrades shall be identified, in accordance with procedures, guidelines, criteria, or standards applicable to the potentially impacted region. The direct connect region shall identify the need for such transmission network upgrades in the study prepared for the interconnection customer.

Requirements for the construction of such transmission network upgrades shall be under the terms and conditions of the potentially impacted region and consistent with applicable federal or provincial regulatory policy.

Each Party shall maintain a separate interconnection queue. In all cases, the queue date associated with an interconnection request for which coordinated studies shall be performed shall be determined by the date of the original request to the direct connect region.

5. **Analysis of Long Term Firm Transmission Service Requests**

In accordance with applicable procedures under which the Parties may be providing Long-Term Firm Transmission Service, each Party shall coordinate with the other Parties the conduct of any studies required in determining the impact of applicable requests for such service. Results of such coordinated studies shall be included in the impacts reported to the
transmission service customers as appropriate. Coordination of studies shall include the following steps:

- The Parties shall work together to coordinate the calculation of Available Transfer Capability values associated with long term firm point-to-point and other types of transmission services, as applicable, based on contingencies on the systems of each Party that may be impacted by the granting of such services.

- Once a request for long-term firm transmission service is received by a Party and identified as having a potential impact on another region, the region receiving the request shall notify other potentially impacted regions of the request, along with the information provided in the request.

- If a system impact study is to be performed, and if the potentially impacted region believes that its system may be materially impacted by the service or request for transmission expansion associated with a request for service, the potentially impacted region shall contact the entity receiving the request and shall be permitted to participate in the studies that may be performed. The Parties shall utilize screening procedures to assist in the identification of transmission service requests that may impact systems of Parties other than the region receiving the request.

- If the region receiving the request performs or contracts for the performance of any system impact studies for the transmission service customer, the region receiving the request shall contact potentially impacted regions to determine the nature and cost of any studies to be performed to test the impacts of the transmission service on the potentially impacted region and who shall perform the studies. The Parties shall strive to maximize the efficiency of the coordinated study process, and exchange data as needed to facilitate the coordinated studies.

- Any coordinated system impact studies shall be performed in accordance with the study timeline requirements of the applicable tariff procedures of the region receiving the request. Both the region receiving the transmission service request and the potentially impacted regions shall use their best efforts to meet the applicable study timelines. However, the region receiving the transmission service request shall be responsible for satisfying the requirements of its tariff related to the request.

- The potentially impacted region may participate in the coordinated system impact study either by taking responsibility for performance of studies of its system, or by providing input to the studies to be performed by the region receiving the request. The system impact study cost estimates indicated in the study agreement between the region receiving the request and the transmission service customer shall reflect the costs and the associated roles of the study participants. The region receiving the request shall review the cost estimates submitted by all participants in the performance of the study effort for reasonableness, based on expected level of participation in and responsibilities for the study.
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- The region receiving the transmission service request shall collect from the transmission service customer and forward to the potentially impacted regions the costs incurred by the potentially impacted regions associated with the performance of such system impact studies.

- As necessary, analysis of the potentially impacted system shall be performed, and transmission network upgrades shall be identified, in accordance with procedures, guidelines, criteria, or standards applicable to the potentially impacted region. The region receiving the transmission service request shall identify the need for such transmission network upgrades in the system impact study prepared for the transmission service customer.

Requirements for the construction of such transmission network upgrades shall be under the terms and conditions of the potentially impacted region and consistent with applicable federal tariffs or provincial regulatory policy.

6. Periodic Interregional Assessments and System Expansion Planning Studies

Periodically, the JIPC may, with input from the IPSAC, perform an interregional system assessment and/or system expansion planning study. The JIPC shall determine the scope of these periodic interregional assessments and perform sensitivity analyses, as required, with input from the IPSAC, including in response to discrete system needs or operability issues that arise due to changing system conditions.

7. Identification and Evaluation of Potential Interregional Transmission Projects Pursuant to FERC Order 1000 Requirements

7.1 Annual JIPC Review

On an annual basis, or at the request of any of the Parties, the JIPC will proactively review regional needs and solutions identified in regional planning processes of the Parties and identify, with input from the IPSAC, whether there are concepts for potential Interregional Transmission Projects that could – in the reasonable engineering judgment of the JIPC – meet regional needs of more than one region (whether driven by reliability, economic or public policy requirements) more efficiently and cost-effectively than separate regional transmission projects. The Parties shall post the results of its review on the interregional pages of the websites of the regions.

7.2 Data and Information Exchange

To assist its review (and its subsequent analysis of Interregional Transmission Projects introduced in both regions), JIPC shall utilize data and information exchanged and reconciled pursuant to Section 3 of the Protocol.
7.3 Analysis and Consideration of Interregional Transmission Projects

If, in response to JIPC review under Section 7.1 or otherwise, an Interregional Transmission Project is proposed in the planning process of more than one region to address system needs identified in the planning process of those respective regions, the Parties with the identified needs shall analyze whether the Interregional Transmission Project may be more efficient and cost-effective than the separate regional transmission projects, and shall post results on the interregional pages of websites of the regions.

The JIPC shall coordinate all interregional studies deemed necessary by the Parties to allow the effective consideration by the regions, in the same general timeframe, of an Interregional Transmission Project. The studies performed by JIPC may include, but are not limited to: power flow, production cost, stability and short-circuit studies. The JIPC shall present the results of the JIPC’s studies and analysis of a proposed Interregional Transmission Project to the IPSAC for its input as soon as practicable upon completion to allow the regional stakeholder processes to benefit from IPSAC input on the proposed project.

7.4 Regional Consideration of Interregional Transmission Projects

Each affected Party that has a need addressed by an Interregional Transmission Project shall consider the proposed Interregional Transmission Project, in the same general timeframe, in its regional planning process. If the proposed Interregional Transmission Project is approved in each region by including it in the respective regional transmission plans in accordance with procedures for each Party’s reliability, economic and/or public policy transmission planning processes, the corresponding existing regional transmission projects shall be displaced, and the costs of the Interregional Transmission Project shall be allocated pursuant to the formula set forth in Section 9.1 hereof.

8. Northeastern Coordinated System Plan (“NCSP”)

The NCSP shall be developed by the JIPC, and shall: 1) incorporate the regional system plans of the Parties, 2) reflect on-going load growth and retirements or deactivations of infrastructure, market-based additions to system infrastructure, such as generation or merchant transmission projects, and distributed resources, such as demand side and load response programs, 3) describe transmission projects identified jointly by the Parties pursuant to Section 6 hereof to resolve seams issues, or to enhance the coordinated performance of the regions, and 4) describe Interregional Transmission Projects identified in response to FERC Order No. 1000 requirements pursuant to Section 7 that can meet needs of more than one region more efficiently or cost-effectively than separate regional solutions.

The JIPC shall present any proposed revision of the NCSP to the IPSAC for its input. Feedback from the IPSAC shall be considered by the JIPC for inclusion in the final NCSP.

Each Party shall document the procedures, methodologies, and business rules that are utilized in preparing and completing the NCSP.
9. Cost Allocation

9.1 Costs of Approved Interregional Transmission Projects

The costs of approved Interregional Transmission Projects shall be allocated among the PJM, NYISO, and ISO-NE regions in accordance with the cost allocation principles of FERC Order 1000, as follows:

(a) To be eligible for interregional cost allocation under this Protocol, an Interregional Transmission project must be selected in the regional transmission plan for purposes of cost allocation in each of the transmission planning regions in which the transmission project is proposed to be located.

(b) The share of the costs of an Interregional Transmission Project allocated to a region will be determined by the ratio of the present value of the estimated costs of such region’s displaced regional transmission project to the total of the present values of the estimated costs of the displaced regional transmission projects in all regions that have selected the Interregional Transmission Project in their regional transmission plans.

   a. The present values of the estimated costs of each region’s displaced regional transmission project shall be based on a common base date that will be the beginning of the calendar month of the cost allocation analysis for the subject Interregional Transmission Project (the “Base Date”).

   b. The estimated cost of the displaced regional transmission projects shall specify the year’s dollars in which those estimates are provided in order to perform the analysis in subpart (a) above.

   c. The present value analysis for all displaced regional transmission projects shall use a discount rate based upon [Discount rate to be determined].

   d. For the purpose of this allocation, cost estimates shall use comparable cost estimating procedures. The Parties, in consultation with the Transmission Owners of each Party’s region, shall review through the IPSAC the project cost estimates to ensure reasonable comparability of estimating procedures. The regions having displaced projects will mutually agree that reasonably comparable estimating procedures have been used prior to applying this cost allocation.

(c) No cost shall be allocated to a region that has not selected the Interregional Transmission Project in its regional transmission plan.

(d) When a portion of an Interregional Transmission Project is to be located within a region in which there is no displaced regional transmission project, such region may at its sole discretion select the Interregional Transmission Project in its regional transmission plan, provided, however, that no portion of the costs of the Interregional Transmission Project shall be allocated to such region in accordance with this Protocol.
(e) Nothing in this Protocol shall govern the further allocation of costs allocated to a region pursuant to this section 9.1 among transmission customers within such region. The further allocation of costs allocated to a region pursuant to this Section 9.1 to transmission customers within a region shall be governed, by the applicable provisions of any tariff of a Party or agreement among a Party and its transmission owners allocating or otherwise addressing filing rights under Section 205 of the Federal Power Act.

The costs of such an Interregional Transmission Project will be allocated to each region in which a portion of the project is located based on the ratio of the estimated costs of that region’s displaced regional transmission project to the total estimated costs of the displaced regional transmission projects in all regions in which a portion of the Interregional Transmission Project is located.

The following example illustrates the cost allocation for such an Interregional Transmission Project:

- A cost allocation analysis of the costs of Interregional Transmission Project Z is to be performed during a given month establishing the beginning of that month as the Base Date.
- Region A has identified a reliability need in its region and has selected a transmission project (Project X) as the preferred solution in its regional plan. The estimated cost of Project X is: Cost (X), provided in a given year’s dollars. The number of years from the Base Date to the year associated with the cost estimate of Project (X) is: N(X).

- Region B has identified a reliability need in its region and has selected a transmission project (Project Y) as the preferred solution in its Regional Plan. The estimated cost of Project Y is: Cost (Y), provided in a given year’s dollars. The number of years from the Base Date to the year associated with the cost estimate of Project (Y) is: N(Y).

- Regions A and B, through the interregional planning process have determined that an Interregional Transmission Project (Project Z) will address the reliability needs in both regions more efficiently and cost-effectively than the separate regional projects. The estimated cost of Project Z is: Cost (Z). Regions A and B have each determined that Interregional Transmission Project Z is the preferred solution to their reliability needs and have adopted that Interregional Transmission Project in their respective regional plans in lieu of Projects X and Y respectively. If Regions A and B have agreed to bear the costs of upgrades in other affected transmission planning regions, these costs will be considered part of Cost (Z).

The discount rate used for all displaced regional transmission projects is: D

Based on the foregoing assumptions, the following formulas will be used:

- Present Value of Cost (X) = PV Cost (X) = Cost (X) / (1+D)^N(X)
- Present Value of Cost (Y) = PV Cost (Y) = Cost (Y) / (1+D)^N(Y)
- Cost Allocation to Region A = Cost (Z) x PV Cost (X) / [PV Cost (X) + PV Cost (Y)]
- Cost Allocation to Region B = Cost (Z) x PV Cost (Y) / [PV Cost (X) + PV Cost (Y)]
Applying those formulas, if:

- Cost (X) = $60 Million and \( N(X) = 8.25 \) years
- Cost (Y) = $40 Million and \( N(Y) = 4.50 \) years
- Cost (Z) = $80 Million
- \( D = 7.5\% \) per year

Then:

- \( PV \) Cost (X) = \( \frac{60}{1+0.075^{8.25}} = 33.039 \) Million
- \( PV \) Cost (Y) = \( \frac{40}{1+0.075^{4.50}} = 28.888 \) Million
- Cost Allocation to Region A = \( \frac{80 \times 33.039}{33.039 + 28.888} = 42,681.48 \) Million
- Cost Allocation to Region B = \( \frac{80 \times 28.888}{33.039 + 28.888} = 37,319.42 \) Million

### 9.2 Other Cost Allocation Arrangements

(a) Except as provided in Section 9.2(b), this Protocol is the exclusive means by which any costs of an Interregional Transmission Project may be allocated between or among PJM, NYISO, and ISO-NE.

(b) Nothing in this Protocol shall preclude agreement by the Parties to other cost-allocation arrangements for Interregional Transmission Projects evaluated pursuant to Section 7 hereof as an alternative to the cost allocation specified in Section 9.1 above, and to cost-allocation arrangements for transmission projects identified pursuant to assessments and studies conducted pursuant to Section 6 hereof. Such other cost-allocation methodologies must be approved in each region pursuant to the Commission-approved rules in each region, filed with and accepted by the Commission, and shall apply only to the region's share of the costs of an Interregional Transmission Project. Nothing in this Protocol changes any existing rights regarding cost allocation.

### 9.3 Filing Rights

(a) Nothing in the Protocol will limit or alter the existing rights of the Parties, transmission owners, or market participants to submit filings under Section 205 of the Federal Power Act regarding cost allocation or any other matter. Where applicable, the Parties have been authorized by entities that have cost allocation rights for their respective regions, but are not Parties to this Protocol, to enter into the agreements set forth this Section 9.1.

(b) With respect to PJM:

(i) The provisions of this Section 9 have been approved by the PJM Transmission Owners acting through the Consolidated Transmission Owners Agreement (“CTOA”).
pursuant to Section 9.1 of the PJM Open Access Transmission Tariff ("PJM Tariff") and Article 7 of the CTOA, and any amendment to the provisions of this Section 9 or any other provision of these Protocols allocating the costs of Interregional Transmission Projects, shall require approval by the PJM Transmission Owners acting through the CTOA pursuant to Section 9.1 of the PJM Tariff and Article 7 of the CTOA and shall be filed pursuant Section 205 of the Federal Power Act in accordance with the PJM Tariff and Article 7 of the CTOA.

(ii) Nothing in this Protocol shall limit or alter the rights of the PJM Transmission Owners set forth in the PJM Tariff and CTOA to submit filings under Section 205 of the Federal Power Act.


10.1 Dispute Resolution

If the Parties to this Protocol are unable to complete any of the tasks outlined herein, or if an issue arises associated with implementation of this Protocol that cannot be resolved by the JIPC, any Party may refer the matter to the Chief Executive Officers of the Parties ("CEOs"). The CEOs shall schedule a meeting to resolve the issue or to provide direction, as appropriate, on a priority basis.

In the event that the CEOs do not reach agreement on any issue referred to them within ten (10) days, then any Party may refer the matter to a neutral, third-party Dispute Resolution Service, which may include the FERC's Dispute Resolution Service, and request a session be convened to initiate non-binding dispute resolution services. Costs assessed by the Dispute Resolution Service for the use of such service shall be borne by all Parties to this Protocol equally.

A Party may refer issues between or among the Parties that are not resolved pursuant to the above provisions to FERC’s Dispute Resolution Service and request a session be convened to initiate non-binding dispute resolution services.

10.2 Liability and Indemnity

The Parties acknowledge that, in the course of our cooperative efforts under the Protocol, each Party shall continue to maintain and be obligated by its own, separate and individual governance, tariffs and agreements.

More specifically, each Party additionally agrees as follows:

- Nothing in the Protocol is intended to override the separateness or compromise the independence of each Party.
- Each Party agrees to indemnify, defend and hold the other Parties harmless from and against any and/or all judgments, awards, demands, liability, losses, costs and expenses (including reasonable attorneys' fees and court costs) arising out of any claim by a third-party grounded in facts or events taking place within its RTO or ISO and arising from the Protocol. Except for the
preceding obligation to indemnify, no Party to this Protocol shall have any liability to any other Party to this Protocol for any obligation arising hereunder.

- Each Party agrees that the Protocol does not create or acknowledge any partnership, joint venture or further agreement or obligation among the Parties above and beyond the exact words of the Protocol. Nor does the Protocol create any third-party beneficiaries or impart any legal right or expectation to any member or market participant of a Party.

- Each Party acknowledges and agrees that the Protocol shall not impact the rights of each Party's respective members under the separate and individual governance, tariffs and agreements of each RTO or ISO.

**10.3 Binding on Successors and Assigns**

The Protocol is binding on each Party’s successors and assigns.

WHEREFORE, this amended and restated agreement is executed as of ______________, which is the effective date of the agreement.

**ISO NEW ENGLAND INC.**

By: ______________________________

Gordon van Welie
President and CEO

**NEW YORK INDEPENDENT SYSTEM OPERATOR, INC.**

By: ______________________________

Stephen G. Whitley
President and CEO

**PJM INTERCONNECTION, L.L.C.**

By: ______________________________

W. Terry Boston
President and CEO