

ATTACHMENT K

Transmission System Planning

1.0 TRANSMISSION PLANNING PROCESS

The Transmission Provider's planning process will reflect the following nine principles:

Coordination - develop transmission plans with all customers and interconnected entities.

Openness - planning meetings will be open to all transmission and interconnection customers, government authorities, and other stakeholders.

Transparency - the basic methodology, criteria, and processes used to develop transmission plans and the status of upgrades identified in the transmission plan will be made available to stakeholders.

Information Exchange - Network Customers will be required to submit information on their projected loads and resources on a comparable basis.

Comparability – the transmission system plan will be developed for specific service requests comparable to native load.

Dispute Resolution – a process will be developed to manage disputes that arise from the planning process.

Regional Participation - coordinate with interconnected systems, share system plans, and identify system enhancements that could relieve congestion or integrate new resources.

Economic Planning Studies - account for economic, as well as reliability considerations.

Cost Allocation - requires that Transmission Providers address the allocation of costs of new facilities.

2.0 ROLES AND RESPONSIBILITIES

2.0.1 The Transmission Provider is responsible for planning and coordinating all changes to the Integrated Electrical System (the “IES”). In doing so, the Transmission Provider will maintain and ensure the adequacy and reliability of the IES.

2.0.2 The Transmission Provider is responsible to ensure that the transmission planning process allows for an efficient, non-discriminatory, coordinated, open and transparent forum open to all members of the Transmission System Users Group (“Users Group”). The transmission planning process will begin with and provide for input from the Users Group throughout. The Transmission Provider's process and its conduct shall be consistent with its Standards of Conduct.

2.0.3 The Transmission Provider will engage in regional planning activities through its participation in the Maine and Atlantic Technical Planning Committee (“MATPC”).

3.0 DEFINITIONS (not included in the OATT)

3.1 10-Year Outlook

A report detailing system loads, generating resources and transmission projects that meets the needs identified in the baseline plan.

3.2 Baseline Plan

A plan reflecting committed and scheduled investments in transmission and generation facilities required to maintain the reliability of the IES.

3.3 Economic Planning Study

A study undertaken by the Transmission Provider with respect to economic upgrades such as congestion reduction or the integration of new resources.

3.4 Feasibility Review

An initial review undertaken by the Transmission Provider to determine if a request for a new or modified connection to the transmission system will require a System Impact Study.

3.5 NPCC

Northeast Power Coordinating Council

3.6 Point of Contact

The contact designated by the Transmission Provider to whom all information and inquiries related to the planning activities described in this Attachment K should be directed.

3.7 Public Policy Requirements

Requirements established by enacted Canadian federal or provincial statutes, acts or regulations.

4.0 TRANSMISSION SYSTEM PLANNING

4.1 Long-term Integrated Electricity System Development Plan

- 4.1.1 In each calendar year the Transmission Provider shall prepare and publish a plan for the development of the IES, referred to as the 10-Year Outlook. Each plan shall cover at least ten years, commencing on January 1 of the year following the year in which the plan is published.

4.1.2 Upon completion of the 10-Year Outlook, the Transmission Provider shall, at a minimum:

- a. Publish the 10-Year Outlook on the Transmission Provider's public website;
- b. Notify all members of the Users Group, via electronic mail;
- c. In any publication or notice under paragraphs a) and b), solicit comments on the contents of the 10-Year Outlook via the Transmission Provider's public website;
- d. Host a meeting of the Users Group for discussion of the 10-Year Outlook within 30 days of its publication;
- e. Provide at least 30 days notice of the time and location of the Users Group meeting;
- f. Reflect comments received within 45 days of the publication of the 10-Year Outlook in a published summary of comments on the Transmission Provider's public website;
- g. Publish a revised 10-Year Outlook on the Transmission Provider's public website, if required to correct material errors or omissions and incorporate compelling requests for enhancements; and
- h. Ensure that relevant comments are reflected in subsequent 10-Year Outlooks.

4.1.3 The 10-Year Outlook is generally comprised of:

- a. The basic methodology, criteria, and processes used to develop transmission and generation plans;
- b. The Baseline Plan as described in Section 4.2;
- c. The summarized results of studies performed under Section 4.3;
- d. The summarized results of other non-confidential studies of the Integrated Electricity System; and
- e. The identification of upgrades as committed pending IRAC approval, under study, or proposed.

4.1.4 Nothing in this section shall prevent the Transmission Provider from preparing, in addition to the 10-Year Outlook, alternative plans based on differing assumptions as to the likelihood of implementation of the connection of new or modified Facilities to the IES.

4.1.5 Should a Users Group member feel that their comments on the 10-Year Outlook have not been adequately addressed by the Transmission Provider, they have the right to follow the dispute resolution process outlined in section 12 of the OATT.

4.2 Baseline Plan

4.2.1 The Transmission Provider shall prepare each Baseline Plan using:

- a. Data and information submitted by Users Group members;
- b. Information contained in Requests for Connection Assessment filed with the Transmission Provider under the Tariff;
- c. The preceding year's Baseline Plan prepared under this section;
- d. Data received from Transmitters that own or operate neighbouring transmission systems; and
- e. Such other information as the Transmission Provider considers appropriate.

4.2.2 Each Baseline Plan shall reflect:

- a. Committed and scheduled investments in Transmission Facilities, Generation Facilities and Transmission System expansion plans;
- b. All connections of new or modified Facilities that have been approved by the Transmission Provider; and
- c. All investments in Transmission and Generation Facilities required for reasons of Reliability of the IES.

- 4.2.3 The Transmission Provider shall use the Baseline Plan as the basis for the determination of incremental, decremental, deferred, or advanced costs as required in allocating costs associated with transmission expansion. Any such allocation shall be performed in compliance with the OATT.
- 4.2.4 The Transmission Provider shall convene a meeting of the Users Group prior to preparation of the Baseline Plan. Users Group members will be provided an opportunity to provide input, discuss the data, information and assumptions that will be used to develop the Baseline Plan. Users Group members shall be provided with at least 30 days notice of the time and location of this meeting.

4.3 Periodic Assessment of the Integrated Electricity System

- 4.3.1 The Transmission Provider shall perform a periodic assessment to identify the potential need for investments in Transmission Facilities and other actions that may be required to maintain Reliability of the IES, and to reduce the costs associated with transmission congestion on the IES. Where applicable, each such assessment shall identify the impact of existing and emerging shortages of transmission capacity on the IES, any significant existing, emerging or potential transmission congestion on the IES, the impact of the connection of new or modified Facilities and the Adequacy of Interconnections.
- 4.3.2 Where the Transmission Provider has identified in an assessment the need to alleviate existing or emerging transmission congestion on the IES, it shall develop and study technically feasible options for alleviating the constraint in consultation with Users Group members. Such consultation will be conducted through the process established under Section 4.1.2 of this Attachment.
- 4.3.3 By February 28th of each calendar year, Users Group Members and potential new Transmission Customers are requested to submit to the Transmission Provider any projections that identify a need for Transmission service over the next 10 years. Such

good faith projections of a need for service, even though they may not yet be subject to a transmission reservation, are useful in transmission planning. Such projections may be used to determine potential transmission congestion on the IES.

4.3.4 Where an assessment referred to in Section 4.3.1 identifies potential transmission congestion on the IES, the Transmission Provider may, depending upon the nature and the probability of the congestion,

- a. utilize the process as described in Section 4.3.2; or
- b. request further supporting information.

4.3.5 For the purposes of this section, transmission congestion shall be considered to be emerging if it is identified by the Transmission Provider as likely to arise within one to five years and transmission congestion shall be considered to be potential if it is identified by the Transmission Provider as likely to arise, which may be based upon good faith projections of interested parties of Section 4.3.3 within five to ten years.

4.3.6 The Transmission Provider will accept projections that identify a need for transmission service driven by Public Policy Requirements; or, for regional planning activities, a list of studies that meet regional needs and opportunities, including needs driven by Public Policy Requirements.

4.4 Economic Planning Studies

4.4.1 The Transmission Provider shall undertake economic planning studies on behalf of native load or OATT customers. Economic planning studies shall evaluate potential upgrades or other investments that could reduce congestion or integrate new resources and loads. Generally, the studies will be conducted in connection with other planning studies.

- 4.4.2 Users Group members and potential new Transmission Customers may submit written requests for economic planning studies to the Transmission Provider. Such requests shall specify in detail the specific proposed project to be the subject of the requested economic planning study.
- 4.4.3 The Transmission Provider, with due consideration of priorities identified by parties under Section 4.4.2, shall identify a maximum of two high priority economic planning studies, with no minimum, that will be performed on behalf of stakeholders within a calendar year. Any formal protest of the studies identified shall be in accordance with the Dispute Resolution Procedure of the Transmission Provider's OATT.

4.5 Coordinated Transmission Planning

- 4.5.1 As a member of MATPC the Transmission Provider will participate in coordinated planning with interconnected systems through Annual Area Reviews as outlined in NPCC Regional Reliability Reference Directory 1, Design and Operation of the Bulk Power System.
- 4.5.2 The Transmission Provider will post current links on its public website to NPCC's procedures and guidelines, as well as information detailing the Transmission Provider's participation in NPCC's planning process.
- 4.5.3 Through the Transmission Provider's participation in NPCC, data sharing and information exchange will take place with interconnected transmission systems and in coordinated planning studies that may have interregional impacts.
- 4.5.4 The Transmission Provider will post on its website how Users Group members and potential new Transmission Customers can obtain information with respect to opportunities for participation in interregional planning forums.

5.0 CONNECTION OF NEW AND MODIFIED FACILITIES

5.1 Connection Requirements of New and Modified Facilities

- 5.1.1 All new or modified Facilities must be approved by the Transmission Provider before connecting to the IES.
- 5.1.2 Each Generation Facility that is connected to the IES must be the subject of a Connection Agreement substantially in the form of existing agreements filed with IRAC as set forth in Attachment J, Generation Interconnection Agreement.
- 5.1.3 Each Load Facility, including for greater certainty a Distribution System, that is connected to the IES must be the subject of a connection agreement with the Transmission Provider in substantially the form of the Attachment G, Network Operating Agreement.
- 5.1.4 Each new Facility that is connecting to the IES shall comply with the applicable technical requirements defined in the Transmission Providers Facility Connection Requirements.

5.2 General Connection Assessment Process for New or Modified Generation and Interconnection Facilities

- 5.2.1 A person that wishes to connect a new or modified Facility to the IES shall file a Request for Connection Assessment with the Transmission Provider in the form set forth in the Connection Assessment Procedure (Appendix K-1 to this Attachment K), together with the supporting materials and deposit.
- 5.2.2 The Transmission Provider shall assign a priority to each Request for Connection Assessment that it receives based on the date of receipt of the completed Request for

Connection Assessment. Requests for Transmission Service shall be processed in accordance with the OATT.

5.2.3 For modifications to Generation requests, the Connection Applicant shall submit to the Transmission Provider modifications to any information provided in the Request for Connection. The applicant shall retain its queue position if the modifications are in accordance with Sections 5.2.3.1, 5.2.3.2 or 5.2.3.4 or are determined not to be material modifications pursuant to Section 5.2.3.3.

5.2.3.1 Prior to the return of the executed System Impact Study Agreement to the Transmission Provider, modifications permitted under this Section shall include specifically: (a) a decrease of up to 60 percent of electrical output (MW) of the proposed project; (b) modifying the technical parameters associated with the Generating Facility technology or the Generating Facility step-up transformer impedance characteristics; and (c) modifying the interconnection configuration. For plant increases, the incremental increase in plant output will go to the end of the queue for the purposes of cost allocation and study analysis.

5.2.3.2 Prior to the return of the executed Facility Study Agreement to the Transmission Provider, the modifications permitted under this Section shall include specifically: (a) additional 15 percent decrease of electrical output (MW), and (b) Generating Facility technical parameters associated with modifications to Generating Facility technology and transformer impedances; provided, however, the incremental costs associated with those modifications are the responsibility of the requesting Generation Customer.

5.2.3.3 Prior to making any modification other than those specifically permitted by Sections 5.2.3.1, 5.2.3.2, and 5.2.3.4, the Generation Customer may first request that the Transmission Provider evaluate whether such modification is a material modification. In response to the Generation Customer's request, the Transmission Provider shall evaluate the proposed modifications prior to making them and inform the Generation

Customer in writing of whether the modifications would constitute a material modification. Any change to the Point of Interconnection, except those deemed acceptable under Section 5.2.3.1 or so allowed elsewhere, shall constitute a material modification. The Generation Customer may then withdraw the proposed modification or proceed with a new Request for Connection for such modification.

5.2.3.4 Extensions of less than three (3) cumulative years in the Commercial Operation Date of the Generating Facility to which the Request for Connection relates are not material and should be handled through construction sequencing.

5.2.4 Following receipt and review of a completed Request for Connection Assessment, the Transmission Provider will approve the request or conduct a Feasibility Review in respect of the connection of the new or modified facility where the Transmission Provider considers whether such connection:

- a. May have an adverse impact on the Reliability of the IES; or
- b. May create a probability of additional constraints by causing the IES to operate at or close to its normal operating limits.

5.2.5 Where the Transmission Provider concludes in its Feasibility Review that the connection of the new or modified Facility to the IES will not have either of the effects referred to in Sections 5.2.4(a) and 5.2.4(b), the Transmission Provider shall approve the request.

5.2.6 Where the Transmission Provider concludes in its Feasibility Review that the connection of a new or modified Facility to the IES will have an adverse impact on the Reliability of the IES in a Proximate Area only, the Transmission Provider shall:

- a. Identify the upgrades to the elements of the IES in the Proximate Area that are required to mitigate the adverse impact of the connection of the new or modified Facility on the Reliability of the IES; and

- b. Approve the connection of the new or modified Facility upon receipt of an undertaking by the Connection Applicant to pay its portion of the costs of such upgrades as assigned or allocated by the Transmission Provider in accordance with Section 5.6.

5.2.7 Where the Transmission Provider concludes in its Feasibility Review that the connection of the new or modified Facility to the IES may have (i) an adverse impact on the Reliability of the IES beyond a Proximate Area; or (ii) the effect referred to in Section 5.2.4(b), the Transmission Provider shall conduct a System Impact Study. Where the Transmission Provider conducts a System Impact Study and concludes that the connection of the new or modified Facility:

- a. will have an adverse impact on the reliability of the IES, then the Transmission Provider shall not approve the connection unless the Connection Applicant agrees, in a form satisfactory to the Transmission Provider, to bear its portion of the costs of all upgrades to the IES that may be required to mitigate such adverse Reliability impact as assigned or allocated by the Transmission Provider in accordance with Section 5.6; or
- b. if the Facility is a Generation Facility, will create the probability of additional constraints by causing the IES to operate at or close to its normal operating limits, then Transmission Provider shall not approve the connection unless:
 - i. where the Transmission Provider is satisfied that the imposition of conditions on the operation of the new or modified Facility can mitigate the probability of such additional constraints, the Connection Applicant agrees to include in its Generation Connection Agreement provisions that require the Connection Applicant to operate the new or modified Facility in accordance with those conditions; and
 - ii. in all other cases, the Connection Applicant agrees, in a form satisfactory to the Transmission Provider, to bear its portion of the costs of all upgrades to the IES that may be required to mitigate the probability of

such additional constraints as assigned or allocated by the Transmission Provider in accordance with Section 5.6.

5.2.8 Where the Transmission Provider determines that it will not approve the connection of a new or modified Facility to the IES under section 5.2.6(a), the Connection Applicant may modify its connection proposal and request that the Transmission Provider conduct a new System Impact Study on the basis of the modified connection proposal. A change in Point-of-Receipt/Point-of-Delivery will be treated as a new proposal for queuing purposes, unless the Transmission Provider determines that the change is non-material.

5.3 General Connection Assessment Process for New or Modified Load Facilities

5.3.1 A person that wishes to connect a new or modified Load Facility to the IES shall file a Request for Connection Assessment with the Transmission Provider in the form set forth in Appendix K-1 Connection Assessment Procedure, together with the supporting material.

5.3.2 Relating to Section 5.3.1, for modified facilities, the Transmission Provider will advise the Connection Applicant if the modification may be materially impactful requiring such submission for preliminary review and, as necessary, an in-depth review.

5.3.3 Following receipt of a completed Request for Connection Assessment and subsequent preliminary review the Transmission Provider will either:

- a. Approve the request; or
- b. Conduct an in-depth review where the impact of such connection may have an adverse impact on the Reliability of the IES.

5.3.4 Where the Transmission Provider concludes that the connection of the new or modified Facility does not have adverse impact on the IES the Transmission Provider will approve the request. Otherwise the Transmission Provider shall:

- a. Identify the upgrades to the elements of the IES that are required to mitigate the adverse impact of the connection of the new or modified Facility on the Reliability of the IES; and
- b. Approve the connection of the new or modified Facility upon receipt of an undertaking by the Connection Applicant to pay its portion of the costs of such upgrades in accordance with Section 5.6.

5.3.5 Where the Transmission Provider, in consultation with the Connection Applicant, determines that such a connection is not practical the Connection Applicant may modify its connection proposal and request that the Transmission Provider conduct a new review on the basis of the modified connection proposal. A modified connection proposal will be treated as a new request for queuing purposes.

5.4 Costs of Connection Assessments

5.4.1 The Transmission Provider shall invoice a Connection Applicant for the costs incurred by the Transmission Provider in conducting a Feasibility Review in respect of the Connection Applicant's Request for Connection Assessment, less the amount paid by the Connection Applicant as a deposit.

5.4.2 The Transmission Provider shall invoice a Connection Applicant for:

- a. the costs incurred by the Transmission Provider in conducting a System Impact Study in respect of the Connection Applicant's Request for Connection Assessment, less the amount paid by the Connection Applicant as a deposit where

the System Impact Study relates solely to such Request for Connection Assessment; or

- b. for the Connection Applicant's share of the costs incurred by the Transmission Provider in conducting a System Impact Study in respect of the Connection Applicant's Request for Connection Assessment, less the amount paid by the Connection Applicant as a deposit, where the System Impact Study relates to such Request for Connection Assessment and to one or more other Requests for Connection Assessment. Such share shall be determined by the Transmission Provider.

5.4.3 An invoice referred to in Section 5.3.1 or 5.3.2, shall be payable in full by the Connection Applicant within 20 Business Days of the date of the invoice. For greater certainty, such invoice shall be considered to create an obligation to pay the amount stated in the invoice and such amount may, without prejudice to any other manner of recovery available at law, be recovered accordingly.

5.4.4 The principles of cost sharing as described in the section 5.6, Costs of Connection, shall also apply to the Connection Assessment Costs.

5.5 Implementation of Connection

5.5.1 Each Connection Applicant shall ensure that the connection of its new or modified Facility is effected in a manner that does not represent a material change from:

- a. any technical requirements that are identified in the applicable Connection Assessment as being required to be met in respect of the connection of the new or modified Facility;

or

- b. the configuration or technical parameters that were used by the Transmission Provider as the basis upon which it approved such connection or that were imposed as a condition in approval of such connection, unless the Connection Applicant has obtained the prior approval of the Transmission Provider for the material change.

5.5.2 The Transmission Provider shall approve a material change referred to in Section 5.5.1 unless it determines that such deviation will have an adverse effect on the reliability of the IES. Where the Transmission Provider does not approve such a material change, the Connection Applicant may propose to the Transmission Provider measures designed to mitigate the adverse effects of the material change on the Reliability of the IES.

5.6 Costs of Connection

5.6.1 This policy pertains to situations where a request (or requests) for point-to-point or network service requires a transmission network upgrade. This policy in no way diminishes the requirement for the costs of direct assignment facilities to be borne by the Transmission Customer.

5.6.2 The Transmission Provider is not obligated to expand the transmission system based on the results of Economic Planning Studies.

5.6.3 For any project for which costs would not be recovered entirely through the Transmission Provider's rates, i.e. regional projects, cost allocation would be subject to review by IRAC.

5.6.4 The principles for cost sharing in this situation are as follows:

- a. The Transmission Provider will recover the costs of projects required for meeting service requests and system improvements in accordance with the provisions of the OATT.
- b. If the additional transmission tariff revenues associated with the increased use of the Transmission System is more than or equal to the increase in the Transmission System revenue requirement there will be no costs incurred by the Transmission Customer.
- c. If the additional transmission tariff revenues associated with the increased use of the Transmission System are less than the increase in the Transmission System revenue requirement, the Transmission Customer will make a contribution to capital of an amount that will allow the Transmission Provider to continue to collect the full revenue requirement.
- d. To the extent that the Transmission Provider identifies system benefits, the requirement of the Transmission Customer to make a contribution to capital is diminished by the net present value of the system benefits.
- e. If multiple service requests will benefit from a system upgrade, the cost sharing among the Interested Parties will be based on a load flow study. The study will identify the relative usage of the upgraded facilities by the transactions on a 12CP basis and the Transmission Provider will allocate the costs in proportion to the relative usage.
- f. To the extent that an upgrade to meet a request for service leads to an advancement in the schedule of network upgrades for general system benefits to which the Transmission Provider has made a commitment in its transmission expansion plan, the Transmission Customer will pay only the costs of the advancement.

5.6.5 For new loads, the Transmission Customer pays only the OATT rate unless the carrying charges of the new facilities are higher than the payments that will be made by the new load as part of the tariff. The Transmission Customer will pay the tariff rates and a

contribution to capital equal to the incremental carrying charges if the new connection costs exceed the average rolled-in costs of facilities.

- 5.6.6 A Transmission Customer which has paid a contribution to capital will be eligible for a proportional refund in the event of a subsequent Transmission Customer connection within the first 7 years of transmission asset commissioning. Refunds are non-interest bearing. The contribution from the new customer and the refund to the incumbent will be calculated on a pro rata basis in proportion to the segment of the transmission assets that are used by each customer and in proportion to the capacity of the transmission assets used by each customer relative to the economic life of the transmission assets. The contribution from the new customer will be reduced by credits that arise from consequential new revenues in accordance with Section 5.6.5, and the Transmission Provider will refund the incumbent by the amount of that reduction.

5.7 Industrial Expansion System Bypass Policy

- 5.7.1 This policy pertains to situations where a customer proposes to serve new load using new on-site generation by wheeling through the local portion of the Transmission System. This policy sets the principles for the case where the construction of on-site transmission or distribution facilities by the customer would be less expensive to the customer than paying the transmission tariff rates for wheeling through the local portion of the Transmission System.
- 5.7.2 In some situations the incremental cost to the Transmitter of allowing the customer to use the Transmission System is less than the cost of the proposed on-site transmission or distribution facilities. In this case, having the customer use the Transmission System reduces the overall cost. The resulting savings will be split evenly between the Transmission Customer and the revenue collected by the Transmission Provider.

- 5.7.3 When the incremental cost to the Transmitter of allowing the transmission customer to use the Transmission System is greater than the cost of the proposed on-site transmission or distribution facilities, it is appropriate for the customer to build the proposed on-site transmission or distribution facilities.
- 5.7.4 If it would be more expensive for the Transmission Customer to build on-site transmission or distribution facilities than to pay the transmission tariff rates for wheeling through the local portion of the Transmission System, it is presumed that the customer will choose the least expensive option.
- 5.7.5 If the Transmission Customer's use of the local portion of the Transmission System results in a requirement to upgrade that portion of the system, the Transmission Customer will be required to pay for the upgrade.