

## **ISO NEW ENGLAND PLANNING PROCEDURE NO. 5-1**

### **PROCEDURE FOR REVIEW OF MARKET PARTICIPANT'S OR TRANSMISSION OWNER'S PROPOSED PLANS (SECTION I.3.9 APPLICATIONS: REQUIREMENTS, PROCEDURES, AND FORMS)**

EFFECTIVE DATE: December 8, 2023

REFERENCES: ISO New England Transmission, Markets and Services Tariff (the "Tariff")

ISO New England Planning Procedure 5-3 (PP5-3): Guidelines for Conducting and Evaluating Proposed Plan Application Analyses

ISO New England Planning Procedure 5-5 (PP5-5): Requirements and Guidelines for Application of Remedial Action Schemes and Automatic Control Schemes

ISO New England Planning Procedure 5-6 (PP5-6): Interconnection Planning Procedure for Generation and Elective Transmission Upgrades

## Table of Contents

1.0	General .....	4
1.1	Description of the Proposed Plan Application Process.....	4
1.1.1	Initial Assessment .....	5
1.1.2	Submittal of a Proposed Plan Application .....	6
1.1.3	Review and Consideration of a Proposed Plan Application.....	9
1.1.4	Withdrawal of a Proposed Plan Application.....	10
1.1.5	Currency of Approved Applications .....	11
1.2	Time Limits Prescribed in Section I.3.9 of the Tariff for Review of a Proposed Plan Application for a New Plan or a Revised Proposed Plan Application for a Revised Plan.....	12
1.3	Issues Not Covered by These Procedures .....	12
2.0	Additions or Changes Requiring Proposed Plan Applications .....	13
2.1	Generation Additions or Changes in Net Station Output .....	13
2.2	Transmission Changes.....	14
2.3	Demand Resource Additions and/or Incremental Updates.....	14
2.4	Protection Systems.....	14
2.5	Interconnections Operating at 69 kV or Above with Non-Transmission Owner or Non-Market Participants .....	14
2.6	Dynamic Controls System .....	14
3.0	Retirements.....	15
3.1	Requirements.....	15
4.0	Facility Changes That Do Not Require Proposed Plan Applications or Revisions to Previously Approved Proposed Plan Applications.....	15
5.0	Application Forms .....	16
5.1	Summary Statement.....	16
5.2	Design Voltage versus Initial Operating Voltage .....	16
5.3	Protection System and Dynamic Control System Descriptions.....	16
5.3.1	Protection System Description .....	16
5.3.2	Dynamic Control System Description.....	16
5.4	Transformer Description.....	16
5.5	Application Identification.....	16
6.0	Document History.....	18
7.0	Attachment 1 – Generation Proposed Plan Application .....	20
8.0	Attachment 2 – Transmission Facilities Proposed Plan Application .....	23
9.0	Attachment 3 – Generator Notification Form for Units or Changes of Less Than 5 MW... 20	

10.0 Attachment 4 – Proposed Plan Application Submittal Procedure ..... 24

## 1.0 General

This document outlines the requirements, procedures, and application forms to be used in the submission and review of proposed plans pursuant to Section I.3.9 of the ISO New England Transmission, Markets and Services Tariff (the "Tariff").

Each submittal shall include an applicable completed application. Blank application form(s) are provided in Attachments 1, 2, and 3 of this document.

Proposed plans submitted for review pursuant to Section I.3.9 must be supported by information and analysis. PP5-3 "Guidelines for Conducting and Evaluating Proposed Plan Application Analyses" provides guidance on what information and analysis should be available to support a submittal. The completed applications and supporting materials describing and assessing the impact of the proposed plans together shall constitute submittal of a Proposed Plan Application (PPA).

Establishment and maintenance of approval of a PPA establishes the determination that implementation of the proposed plan will not have a significant adverse effect upon the reliability or operating characteristics of the Market Participant's or Transmission Owner's system or of the systems of one or more other Affected Entities<sup>1</sup> and the Market Participant or Transmission Owner is free to proceed with the proposed plan.

As prescribed per this document, a Market Participant or Transmission Owner will submit a PPA to the ISO. Where a non-Market Participant or non-Transmission Owner is involved, the non-Market Participant or non-Transmission Owner must meet the same requirements as for a Market Participant or Transmission Owner, except that a Market Participant or Transmission Owner on behalf of the non-Market Participant or non-Transmission Owner must submit any PPAs. Typically, the Transmission Owner that interconnects with the non-Market Participant or non-Transmission Owner will submit the PPA for the interconnection. If transmission facility changes are required to interconnect non-Market Participant or non-Transmission Owner facilities, the Market Participant or Transmission Owner who owns, or will own, the facilities at the Point of Interconnection with the non-Market Participant or non-Transmission Owner facilities is responsible for submission of the Transmission PPAs. Joint Applications may need to be filed if systems of others are involved.

Market Participants or Transmission Owners must follow the "PPA Submittal Procedure" contained in Attachment 5 to this procedure for their submittal of PPAs to the ISO. This attachment details the flow of information required under this planning procedure and Planning Procedure 5-3, "Guidelines for Conducting and Evaluating PPA Analysis," to promote a smooth PPA review by the Reliability Committee and review and approval by the ISO.

### 1.1 Description of the Proposed Plan Application Process

The ISO will coordinate the PPA process.

---

<sup>1</sup> See ISO New England Planning Procedures No. 5-0, "Procedure for Reporting Notice of Intent to Construct or Change Facilities in Accordance with Section I.3.9 of the ISO New England Tariff (Proposed Plan Application Procedure)"

### **1.1.1 Initial Assessment**

The complexity of proposed changes to the system can range from minor changes to major alterations. The intention of the Proposed Plan process is to match study effort and review effort appropriate to the complexity of the proposed change. In PP5-3 “Guidelines for Conducting and Evaluating Proposed Plan Application Analyses”, guidance relative to study effort is provided through a discussion of different study levels. PP5-3 defines four levels of analysis: Level 0, Level I, Level II, and Level III. The Market Participant or Transmission Owner must discuss proposed plans early in the process with the ISO and, as necessary, the host Transmission Owner for guidance regarding the appropriate level of study required or whether a PPA is needed.

The ISO will examine the proposed plans and evaluate the potential for significant adverse impact on the stability, reliability, or operating characteristics of the interconnected system. Based on this examination, the ISO will advise the Market Participant or Transmission Owner regarding whether input should be solicited from other committees or any Affected Entity. Other committees include, but are not limited to, the Principal Committees.

The ISO will engage potentially technically impacted Affected Entities during the conduct of the studies that will be used to support a PPA.

**1.1.2 Submittal of a Proposed Plan Application**

All required materials, as described below, shall be sent with supporting documentation to the ISO who will collect, distribute, and provide a record of the PPA to a Reliability Committee meeting for which action is expected. Submittals of PPAs or supporting materials that are received by the ISO after the deadlines described below shall result in deferral of review to a following noticed Reliability Committee meeting that satisfies the submission timing requirements of this procedure, unless, it is decided at the discretion of the officers of the Reliability Committee, to conduct the review at the requested meeting.

In order for the ISO to conduct its review, the Market Participant or Transmission Owner shall provide modeling data adequately representing the planned facility to the ISO prior to the submittal of the PPA documentation. The submission of modeling data as early as possible is encouraged and submissions of modeling data may be made prior to the dates described in the following sections. Model submission and approval will be required for PPA approval.<sup>2</sup> Figure 1 below and accompanying text illustrate and describe the timelines and requirements.

---

<sup>2</sup> At the ISO's discretion, PPA approval may be provided where the submittal requirements of this procedure were met, but not all of the issues associated with accepting the models have been addressed, provided that the proponent is demonstrating best-efforts to resolve the outstanding model-acceptance issues.

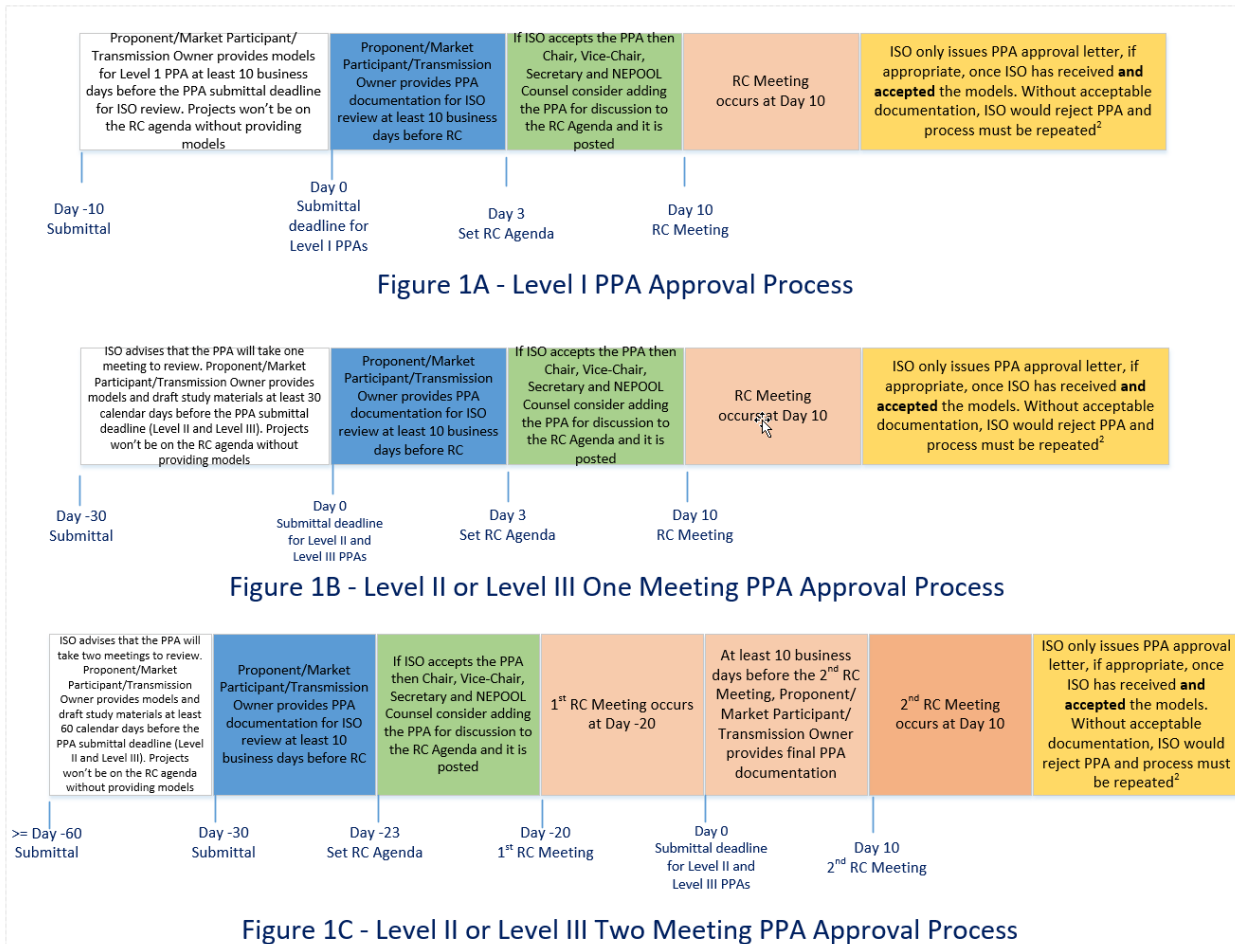


Figure 1 (includes Figures 1A, 1B, and 1C) – PPA Approval Process Typical Timelines<sup>3</sup>

**Level 0 Analysis**

Proposals requiring Level 0 analysis only require a notification. The Market Participant or Transmission Owner shall provide this notification at least ten Business Days before the Reliability Committee Meeting.

**Level I Analysis**

For Proposed Plans requiring Level I analysis, the Market Participant or Transmission Owner shall provide models at least ten Business Days prior to the PPA submittal deadline, as shown in the timeline labeled as “Level I PPA Approval Process” in Figure 1A.

**Level II or Level III Analysis**

<sup>3</sup> At the ISO’s discretion, PPA approval may be provided where the submittal requirements of this procedure were met, but not all of the issues associated with accepting the models have been addressed, provided that the proponent is demonstrating best-efforts to resolve the outstanding model-acceptance issues.

For Proposed Plans requiring Level II and Level III analysis, the ISO shall advise and notify the Market Participant or Transmission Owner whether one or two Reliability Committee meetings will be recommended to complete the review. The Market Participant or Transmission Owner shall submit models and draft study materials for review prior to the formal PPA submittal in accordance with the applicable timeline depicted in Figure 1B or 1C, as described below. Note that the PPA review schedule does not begin until the PPA form is submitted.<sup>4</sup>

### **Level II or Level III Analysis – One Reliability Committee Meeting**

If the ISO advises that only one Reliability Committee meeting is recommended for the PPA under consideration, the timeline entitled “Level II or Level III – One Meeting PPA Approval Process” in Figure 1B shall be applicable. The Market Participant or Transmission Owner shall provide models in accordance with Section 1.1.2.1 below and draft study materials<sup>5</sup> at least 30 calendar days prior to the PPA submittal deadline for the RC meeting. Final study materials for posting to the RC must be submitted to the ISO by emailing [ProposedPlans@iso-ne.com], along with the PPA and other supporting materials, at least ten Business Days prior to the Reliability Committee meeting during which action on the PPA is requested.

### **Level II or Level III Analysis – Two Reliability Committee Meetings**

If the ISO recommends two RC meetings for the Level II or Level III PPA under consideration, the timeline entitled “Level II or Level III – Two Meeting PPA Approval Process” in Figure 1C shall apply. The Market Participant or Transmission Owner shall provide models in accordance with Section 1.1.2.1 below and draft study materials<sup>6</sup> at least sixty calendar days prior to the PPA submittal deadline for the Reliability Committee meeting during which action on the PPA is requested. Final study materials for posting to the Reliability Committee must be submitted to the ISO by emailing [ProposedPlans@iso-ne.com], along with the PPA and other supporting materials, at least ten Business Days prior to the Reliability Committee meeting during which action on the PPA is requested.

#### **1.1.2.1 Model Submission Requirements**

The following shall be included in the model submission as applicable:<sup>7,8</sup>

---

<sup>4</sup> PPAs may require either a 60 or 90 day review period in accordance with Section I.3.9 of the ISO Tariff.

<sup>5</sup> The draft study materials shall include a draft of the study report that will be used to support the PPA, as well as any other materials the proponent believes necessary to describe the project. The draft study report shall meet the requirements of Section 3.1.3 of Planning Procedure 5-3.

<sup>6</sup> The draft study materials shall include a draft of the study report that will be used to support the PPA, as well as any other materials the proponent believes necessary to describe the project. The draft study report shall meet the requirements of Section 3.1.3 of Planning Procedure 5-3.

<sup>7</sup> Submissions for Generating Facilities or Elective Transmission Upgrades that are in the ISO-NE interconnection queue shall be made by the ISO. Submissions for transmission projects or those associated with Generating Facilities that are in a non-FERC interconnection queue, and submissions for transmission projects associated with Generating Facilities or Elective Transmission Upgrades that are in the ISO-NE interconnection queue, shall be made by the Transmission Owner that is a Transmission Planner.

<sup>8</sup> Submittals shall use “permanent” bus numbers.



- a steady state model into the Siemens PTI Model on Demand (MOD) and auxiliary modeling information such as, but not limited to, contingency definitions etc. in a format compatible with the ISO Basecase Database (BCDB)
- dynamics data into the Dynamics Data Management System (DDMS) for transmission equipment with dynamic models and for Generating Facilities  $\geq 5\text{MW}$ <sup>9</sup>
- short-circuit data as described in OP-16, Appendix K

After the models are submitted as described in this procedure, subsequent model updates during project construction shall be submitted in accordance with ISO Operating Procedures OP-14 and OP-16 and/or the relevant model provisions of the ISO interconnection procedures, as applicable.

### 1.1.2.2 PPA Submission Requirements

A PPA submission shall include:

- the application(s) with a cover letter, a one-line diagram illustrating the proposed change relative to the existing system along with proposed equipment nomenclature, and,
  - For Level II or Level III analysis, a report that documents the study and supports the application
    - the report shall include appendices with steady-state, dynamics and short circuit models used for the study
  - a map locating the facilities should also be provided if available

For PPAs that require two Reliability Committee meetings, the Market Participant or Transmission Owner shall submit the final PPA materials after the Reliability Committee conducts its initial review during the first meeting, and at least ten Business Days prior to the second Reliability Committee meeting.

Consistent with Attachment 4 of this Planning Procedure, the ISO shall post the relevant submission materials for Reliability Committee review.

It is recommended that a PPA not be filed more than 5 years prior to the proposed in-service date. Applications that are submitted for review more than 5 years in advance of the proposed in-service date must include an explanation of the need for this lead time and a schedule of clearly defined milestones related to the pursuit of permitting, licensing and construction of the proposed plan. The schedule of milestones will be used to demonstrate due diligence to the Reliability Committee and the ISO.

### 1.1.3 Review and Consideration of a Proposed Plan Application

The ISO will supply the Reliability Committee brief statements describing the ISO's recommendation on PPAs that require Level II or Level III analysis, including any opinions expressed by Affected Entities regarding significant impacts that they believe to be insufficiently addressed. Such recommendations are preferably provided to the Reliability Committee with the

---

<sup>9</sup> For equipment installed with a new type of technology that cannot be represented by PSS/E standard library models, refer to OP-16 Appendix J and Planning Procedure 5-6 (PP5-6) Appendix B, which address user-written models.

distribution of the meeting material and agenda. If any of the recommendations are not available at the time of the distribution of the meeting material and agenda, the recommendations should be provided prior to the Reliability Committee acting on the PPA. If the recommendations are not available by the time the Reliability Committee is prepared to act on the application, the committee may elect to defer action subject to the time constraints defined in Section 1.1.2.

A draft motion describing the conditions of the approval for the PPA consistent with the Technical Committee Bylaws will be distributed by the ISO.

If in reviewing the application and associated information, the Reliability Committee decides additional information, review, or study is required prior to acting on the application, the Reliability Committee may elect to defer action and solicit supplementary information, review, or study as required. Sources for such additional information may be, but are not limited to, the Market Participant or Transmission Owner sponsoring the application, other Market Participants or Transmission Owners, the ISO, and other committees.

The actions the Reliability Committee may take are to defer action, recommend approval by the ISO, or recommend disapproval by the ISO. The Reliability Committee is expected to act on all PPAs that require Level II or Level III analysis. Applications requiring Level I analysis do not need approval, but do need Reliability Committee concurrence that only Level I analysis is required.

Reliability Committee members will be responsible for establishing an understanding of each application through their own knowledge, review of the documentation provided with the application, and/or consultation with the ISO, and/or other committees.

The Secretary of the Reliability Committee will notify the Members and Alternates of the Participants Committee and the ISO of the actions taken by the Reliability Committee. This written notice will be delivered prior to the end of the fifth (5th) business day following a meeting of the Reliability Committee as specified by the Technical Committee Bylaws. This notification will constitute formal confirmation that such action was taken. The ISO will consider the recommendations of the Reliability Committee in the process of approving/disapproving each PPA. The ISO will transmit an official letter to the Market Participant or Transmission Owner submitting the Application noting such approval or disapproval. Upon approval the Market Participant or Transmission Owner shall be free to implement the proposed plan in accordance with the Tariff, including compliance with any additional requirements contained therein, e.g. the requirements of the process for the interconnection of new generating resources or modification of existing generating resources pursuant to Schedules 22 and 23 of Part II of the Tariff, subject to the terms of this document. If any Reliability Committee member provides a written objection to a PPA, such objection will be conveyed to the ISO. In the event that another Market Participant or Transmission Owner objects to the actions of the ISO, the Tariff specifies avenues for resolution of the objection.

#### **1.1.4 Withdrawal of a Proposed Plan Application**

Withdrawal of a PPA is indication that a Market Participant or Transmission Owner no longer intends to pursue a proposed plan. Should a Market Participant or Transmission Owner wish to withdraw its PPA, a letter to that effect should be sent to the ISO. The ISO will distribute the

notice of withdrawal to the appropriate committees. Consideration as to which committees should be notified will be subject to the stage of the processing of the application. PPAs associated with projects that have withdrawn from the interconnection queue shall be considered automatically withdrawn.

### **1.1.5 Currency of Approved Applications**

Following review and approval of the proposed plans associated with one or more PPAs, implementation of the proposed plans must continue to be actively pursued for such applications to remain current. Any of the following conditions may result in a determination that approval of such applications is revoked:

- a. Two years have elapsed from the proposed in-service date on the approved PPA(s) and the Market Participant or Transmission Owner has not demonstrated due diligence in pursuit of permitting, licensing and construction of the approved proposed plans. For proposed plans associated with an application submitted pursuant to the Tariff ("Tariff Application"), a valid and current Tariff Application shall constitute due diligence in pursuit of implementation of the proposed plans.
- b. The Market Participant or Transmission Owner has not sufficiently modified the proposed plans as required to address the difference between the modeled and actual or expected system.
- c. The Market Participant or Transmission Owner has elected not to pursue completion of the proposed plans described in the approved PPA(s).
- d. The Market Participant or Transmission Owner makes a change in the scope of the proposed plans described by the original PPA.
- e. The PPAs were submitted for review and approved more than 5 years in advance of the proposed in-service date, and the Market Participant or Transmission Owner has not demonstrated due diligence in pursuit of permitting, licensing and construction of the approved proposed plans through annual progress reports. For proposed plans associated with an application submitted pursuant to the Tariff ("Tariff Application"), a valid and current Tariff Application shall constitute due diligence in pursuit of implementation of the proposed plans.

The ISO, in consultation with the Reliability Committee, will notify the Market Participant or Transmission Owner where such conditions have led to the conclusion that the approval of the associated PPAs may be revoked. However, within 90 days following notification of such action the Market Participant or Transmission Owner may submit studies and/or information for review and approval by the ISO that addresses the issues leading to this conclusion in order to maintain approval of such applications. The ISO may modify the time limits identified above as appropriate.

Studies must be updated and proposed plans modified accordingly if the actual or expected system is, as of the proposed plans' actual in-service date, sufficiently different from what was modeled in the analysis supporting the approved PPA(s). The updated studies will identify whether a part of a proposed plan that is no longer being pursued, as identified per this

Procedure, is a necessary component or condition of another proposed plan that has maintained its currency. In this case, a Proposed Plan approval associated with the necessary component or condition will remain current.

### **1.2 Time Limits Prescribed in Section I.3.9 of the Tariff for Review of a Proposed Plan Application for a New Plan or a Revised Proposed Plan Application for a Revised Plan**

Section I.3.9 of the Tariff<sup>10</sup> requires each Market Participant or Transmission Owner to submit a PPA to the ISO at least sixty (60) days prior to the proposed in service date. In the case of transmission facilities developed through the Solutions Study process or the competitive solution process, no significant action (other than engineering reasonably necessary to support the Solutions Study or competitive solution process) shall be taken.

Any revisions to a previously approved PPA proposed for implementation prior to the in-service date of such previously approved Proposed Plan must be specified on a revised PPA form. The completed PPA form for a new plan or a revised PPA for a revised plan requiring analysis must include documentation of the analyses that have been determined to be required by the ISO, in consultation with Affected Entities, as necessary, or the Reliability Committee. If during the PPA review process a significant adverse impact on the New England Control Area system or any Market Participant's or Transmission Owner's system is identified, then the PPA will be rejected.

Due to the amount of time required for the Proposed Plan process, Market Participants or Transmission Owners are strongly recommended to supply appropriate data, with adequate lead times for performance and completion of any anticipated analyses and its review by ISO as described in "Level of Analysis Required" (see PP5-3, Section 3.1.2), prior to formal submittal of a PPA to the ISO. If the appropriate data is not supplied with adequate lead times for performance and completion of any anticipated analyses and its review by ISO, then implementation of the proposed plans may be delayed or rejected regardless of their stage of physical completion.

### **1.3 Issues Not Covered by These Procedures**

For issues not covered by these or any other documented procedure, Market Participants or Transmission Owners are expected to discuss pertinent issues with, and seek guidance first from the ISO. If the issue involves a policy decision, the ISO may suggest an approach for addressing the issue. Such approach may involve raising the issue for discussion, guidance, or decision from one or more committees.

---

<sup>10</sup> See also Section 2.06 of the Transmission Operating Agreement.

**2.0 Additions or Changes Requiring Proposed Plan Applications**

This section identifies when a PPA is required based upon the type and/or size of facility.

**2.1 Generation Additions or Changes in Net Station Output**

The following table describes the PPA requirements and the level of analysis required for all new generation or changes in station output that meet the defined conditions.

<b>Generation Change<sup>11,12,13</sup></b>	<b>Proposed Plan Application Required?</b>	<b>Study and Performance Requirements</b>	<b>Modeling Requirements</b>	<b>Level of Analysis Required<sup>14</sup></b>
New or Increased Generation $\geq 5\text{MW}$ <sup>15</sup>	Yes	Requirements of Planning Procedure 5-6 and 5-3	Requirements of Planning Procedure 5-6	Level III
$\geq 5$ MVAR Unit or $\geq 10$ MVAR Station Change in Reactive Capability <sup>16</sup>	Yes	Requirements of Planning Procedure 5-6 and 5-3	Requirements of Planning Procedure 5-6	Level III
New or Increased Generation $>1\text{MW}$ and $< 5$ MW	No. Notification Form <sup>17</sup> only is Required – Unless the ISO identifies that a PPA is required	None, unless the ISO identifies that a PPA is required, in which case Requirements of Planning Procedure 5-6 and 5-3	None, unless the ISO identifies that a PPA is required, in which case Requirements of Planning Procedure 5-6	Level 0 - Unless the ISO identifies that a PPA with Level III analysis is required
New or Increased Generation $\leq 1\text{MW}$	No	None	None	None

This language only encompasses requirements related to the submission of PPAs under Section 3.9 of Part I of the Tariff. The provisions of Schedules 22 and 23 of the ISO New England Open Access Transmission Tariff with regard to the interconnection of new generation or modification of existing generation or the provisions of Market Rule 1, Section III of the Tariff, with regard to a reduction in the capacity or a retirement of a generator must also be observed. PPAs shall be submitted in accordance with this Planning Procedure within 30 calendar days from the end of the Interconnection Customer’s comment process following the completion of a System Impact Study pursuant to Schedule 22 or Schedule 23 of the ISO New England Open Access Transmission Tariff.

<sup>11</sup> Changes in MW or MVAR capability reflect a change in the fundamental capability of the unit or station.

<sup>12</sup> For the purposes of this section, a station is a group of generators and associated terminal equipment (including generator interconnections) all contained by a continuous fence and owned by a single entity.

<sup>13</sup> Net station output is output delivered to the Point of Interconnection.

<sup>14</sup> NERC Standard FAC-002-4, Facility Interconnection Studies, introduces a new term, Qualified Change, which is defined by ISO-NE as an interconnection of new generation, transmission, or electricity end-user facilities or change of an existing interconnection of generation, transmission, or electricity end-user facilities that requires Level II or Level III analysis. Also, see Section 3.1.2, Level of analysis required, in PP5-3.

<sup>15</sup> An increase of 5 MW or more of net station output for a single unit within a station or an increase of 5 MW or more of total net station output.

<sup>16</sup> An increase or decrease (lead or lag) of 5 MVAR or more in net station output for a single unit within a station, or, an increase or decrease (lead or lag) of 10 MVAR or more in total net station output

<sup>17</sup> Generation Notification Form submittals are subject to the same timing requirements contained in Section 1.1.2

At the same time (and for the same Reliability Committee meeting) as the submittal of the Generation PPA, the Market Participant or Transmission Owner, if necessary, must submit a PPA for transmission associated with the generation in accordance with Section 2.2 of this procedure.

## **2.2 Transmission Changes**

All transmission changes that change the topology or characteristics of the transmission system or that change the thermal capability of a portion of the system by replacement of transmission facilities except as exempted in Section 4 require a PPA (Attachment 3). Transmission Applications must be approved by the ISO.

For all major changes to transmission facilities with design voltages at or above 69 kV, the Market Participant or Transmission Owner will supply the results of completed studies to the ISO sufficiently in advance of the Proposed Plan Transmission Application so that sufficient time for review is allowed. This includes changes to generator leads and their associated equipment, such as a GSU.<sup>18</sup>

PPAs associated with Elective Transmission Upgrades shall be submitted in accordance with this Planning Procedure within 30 calendar days from the end of the Interconnection Customer's comment process following the completion of a System Impact Study pursuant to Schedule 25 of the ISO New England Open Access Transmission Tariff.

## **2.3 Demand Resource Additions and/or Incremental Updates**

Any generation additions or changes, including Distributed Generation, should follow the generation submittal and notification requirements of this PP5-1, even if they are intended to participate in ISO New England markets as demand resources. No notification or submittal is required pursuant to this PP5-1, for demand resources that are not comprised of generation.

## **2.4 Protection Systems**

Any addition of, functional change in, or retirement of a Remedial Action Scheme or Automatic Control Scheme (as described in Section 1 of Planning Procedure 5-5) requires submission of a PPA. Such application will be treated the same as Section 2.2.

## **2.5 Interconnections Operating at 69 kV or Above with Non-Market Participants or Non-Transmission Owners**

Interconnections operating at 69 kV or above with non-Market Participants or non-Transmission Owners (such as a new connection with a neighboring Control Area) require a PPA to be approved by the ISO.

## **2.6 Dynamic Controls System**

Any addition or significant change in a continuously acting control system and associated devices that respond to normal and abnormal system conditions or events, so as to change the stability, reliability, or operating characteristics of the bulk power system requires submission of a PPA. Any

---

<sup>18</sup> Major change, as used in this sentence, is equivalent to a Qualified Change. Also, see Section 3.1.2, Level of analysis required, in PP5-3.

significant difference in a continuously acting control system and associated devices from those parameters studied and approved under a PPA or otherwise conveyed to the ISO as part of the Applicant's ongoing data provision requirements requires submission of a new PPA to assess the actual operating parameters. This includes, but is not limited to significant changes in control systems associated with static var and synchronous compensators, HVdc, generator excitation systems, power system stabilizers and turbine governor systems. Please note that the provisions of Schedule 22, 23 and 25 of the ISO Open Access Transmission Tariff regarding modifications to existing generators and Elective Transmission Upgrades must also be observed.

### **3.0 Retirements**

This section identifies when a PPA is required based upon the type and/or size of facility.

#### **3.1 Requirements**

Generator retirements do not require the submission of a PPA. However, all requirements in the ISO New England Manual for Registration and Performance Auditing (M-RPA) must be met. Retirement of a capacity resource must follow the requirements of Section III.13 of the Tariff.

#### **4.0 Facility Changes That Do Not Require Proposed Plan Applications or Revisions to Previously Approved Proposed Plan Applications**

Facility changes, such as but not limited to the following, do not require PPAs or revisions to previously approved PPAs:

- Routine protection and relaying changes only if there will be no increase in the fault clearing times and no material change in elements tripped for all events that would be analyzed pursuant to the PPA process.
- Minor adjustments of parameters of continuously acting control systems from what had been previously approved under a PPA (However, such adjustments must be conveyed to the ISO as part of the Applicant's ongoing data provision requirements.)
- Disconnect switches
- Replacement in kind or with greater energy dissipation of surge arrestors
- Station automation
- SCADA
- Communications
- Metering
- Rehabilitation with like equipment that does not affect transmission capability
- Static wire changes
- Counterpoise changes
- Replacement in kind of line terminal equipment and bus conductor to increase thermal capability (Such changes however require the Market Participant to submit revised NX-9 data to the ISO in accordance with OP 16 "Transmission System Data")
- Reductions in capability that result from the retirement of the resource/asset

## **5.0 Application Forms**

Attachments 1, 2 and 3 are forms to be used to notify the ISO of proposed generation and transmission changes.

### **5.1 Summary Statement**

Each application will include a summary statement describing the proposed change and its purpose, and explaining its impact on the system, if any.

### **5.2 Design Voltage versus Initial Operating Voltage**

Where a transmission line will be operated initially at a voltage lower than its design voltage, both voltage levels will be specified in the space provided. The procedure to be followed is determined by the initial operating voltage. A separate PPA is required when the line is to be converted to the higher voltage.

## **5.3 Protection System and Dynamic Control System Descriptions**

### **5.3.1 Protection System Description**

The relaying section of the transmission form will describe the types of line relaying, backup relaying, communications and reclosing to be installed. Breaker failure protection also will be described. Any protective system that requires remote tripping, runback, or fast valving of generating equipment must be described in detail.

### **5.3.2 Dynamic Control System Description**

If applicable, a description of the equipment and design considerations must be provided. If testing and maintenance is an important factor in the overall performance in mitigating any adverse system impact, then a plan of the system testing and maintenance must be provided.

## **5.4 Transformer Description**

Transformer terminal voltages will be stated in the space provided, including tertiary winding, if there is one. The type of transformer or transformer bank should be described in the "comments" section. A separate sheet may be used, if needed.

## **5.5 Application Identification**

A company identification number will be assigned to each application by the Market Participant or Transmission Owner preparing it. The following codes will be used:

- Company initials
- Last two digits of year submitted
- Letter(s) indicating
  - G - Generation Addition
  - T - Transmission Change
  - X - Protection System/Dynamic Control System Change or Addition
- Company's serial number of Section I.3.9 filing for year indicated
- REV indicating a revision to a previously completed and approved PPA



- Serial number reflecting sequence of revisions to the previously completed and approved PPA

These codes will be assembled into a string as shown in the example below:

EXAMPLES: NSTAR-03-T06  
NSTAR-03-T06-REV-01

**6.0 Document History<sup>19</sup>**

Rev. No.	Date	Reason
Rev. 0	Rec: RTPC – 1/18/00; App: PC – 2/4/00	
Rev. 1	Rec: RC – 11/14/00; App: PC – 12/1/00	
Rev. 2	Rec: RC – 6/10/03; App: PC – 6/25/03	
Rev. 3	Eff: 2/1/05	
Rev. 4	App: RC – 9/19/07; PC – 10/12/07; ISO-NE – 10/12/07	
Rev. 4.1	RC – 12/19/07	Revision to Attachment 4
Rev. 4.2	RC – 1/30/08	Revision to Attachment 2
Rev. 4.3	PC – 2/4/09	Revision to Attachment 5
Rev. 5	Rec: RC – 2/24/09; PC – 3/6/09; ISO-NE – 3/6/09	
Rev. 6	App: RC – 5/19/09; PC – 6/5/09; ISO-NE – 6/5/09	
Rev. 7	App: RC – 11/17/10; PC – 12/10/10; ISO-NE – 12/10/10	
Rev. 8	App: RC – 3/19/13; PC – 4/5/13; ISO-NE – 4/5/13	Updated Section 2.4 description of the review of Demand Resources
Rev. 9	App: RC – 2/18/14; PC – 3/7/14; ISO-NE – 4/9/14	Conforming change recognizing paragraph 2.9 had been made Section 4
Rev. 10	App: RC – 8/18/15; PC – 9/11/15; ISO-NE – 10/2/15	Added data field on Attachment 4; updated website links on Attachment 5
Rev. 11	App: RC – 10/17/17; PC – 11/3/17; ISO-NE – 11/8/17	Elimination of Task Force review
Rev. 12	App: RC – 2/13/18; PC – 3/2/18; ISO-NE – 3/9/18	Applicability of the requirements of PP5-6; timely submittal and automatic withdrawal of PPAs; removal of waiver for Settlement-Only Generators from underfrequency protection requirements and PPA forms update
Rev. 13	App: RC – 12/18/19; PC – 2/6/20; ISO-NE – 2/6/20	Updated Section 1.2 to conform with changes to Tariff Section I.3.9. Changed Governance Participant to Market Participant or Transmission Owner to match Section I.3.9.
Rev. 14	App: RC – 6/16/2020; PC – 8/6/2020; ISO-NE – 8/6/2020	Updated Section 1.1.2 to clarify 2 week PPA submittal requirement. Formatting changes to Attachment 1 and Attachment 3. Data request change to Attachment 1.
Rev. 15	App: RC – 12/15/2020; PC – 1/7/2021; ISO-NE – 1/7/2021	Updated References and Section 2.4 to conform with NERC and NPCC RAS terminology and changes to Planning Procedure 5-5

<sup>19</sup> This Document History documents action taken on the equivalent NEPOOL Procedure prior to the RTO Operations Date as well as revisions to the ISO New England Procedure subsequent to the RTO Operations Date.

---

Rev. 16	App: RC – 12/14/2022; PC – 1/5/2023; ISO-NE – 1/12/2023	Added modeling and data submittal and timing requirements for PPA submittals and approvals
Rev. 17	App: RC – 11/14/2023; PC – 12/08/2023; ISO-NE – 1/1/2024	Updated table in Section 2.1 by adding a Level of Analysis Required column

**7.0 Attachment 1 – Generation Proposed Plan Application**

**GENERATION PROPOSED PLAN APPLICATION**

ISO New England Planning Procedure 5-1

Page 1 of 2

Applicant \_\_\_\_\_ Date \_\_\_\_\_

Contact Person \_\_\_\_\_ Phone \_\_\_\_\_

1. Station Name \_\_\_\_\_  
and Location \_\_\_\_\_

Unit Identification \_\_\_\_\_

	Winter (0 or higher Deg F)*	Winter (20 Deg F)	Summer (50 or higher Deg F)**	Summer (90 Deg F)
Gross Unit Rating (MW)				
Net Unit Rating (MW)				
Unit Rating (Lagging MVAR)		N/A		
Unit Rating (Leading MVAR)		N/A		

\* Enter all values in this column corresponding to the temperature of 0 degrees F or greater at which gross facility output will be the highest. As an example, if the maximum gross facility output occurs at 12 degrees F, all values in this column shall correspond to the 12 degree F operating condition.

\*\* Enter all values in this column corresponding to the temperature of 50 degrees F or greater at which net facility output will be the highest. As an example, if the maximum net facility output occurs at 67 degrees F, all values in this column shall correspond to the 67 degree F operating condition.

2. Type of Application

Construction  Capacity Change

3. Requested Commercial Operation Date \_\_\_\_\_

4. Will the facility be equipped with a functioning governor?  Yes  No (A "No" response may be grounds for rejection pursuant to OP 14.)

5. Is the unit equipped with under-frequency protection?  Yes  No

If "Yes:"

a. Has the host utility reviewed the settings?  Yes  No

b. Will the unit be tripped for under-frequency conditions in the area above the curve in Figure 1 of Standard PRC-006-NPCC?  Yes  No

i. If "Yes," has additional automatic load shedding been provided equivalent to the amount of generation to be tripped?  Yes  No

Application Identification No. \_\_\_\_\_

**GENERATION PROPOSED PLAN APPLICATION**

ISO New England Planning Procedure 5-1

Page 2 of 2

c. Will the unit be tripped in conjunction with dropping low voltage feeders during load shedding?

Yes  No

i. If “Yes,” has the host utility ensured that sufficient automatic load shedding capability will be available to system operators?  Yes  No

*Note: A "No" response to b.i or c.i is grounds for rejection.*

6. Provide the following information on fuel used by the unit

a. List the unit's primary fuel \_\_\_\_\_.

b. and secondary fuel \_\_\_\_\_.

7. Will the unit have black start capability?  Yes  No

a. If "Yes," can it be operated on its own auxiliaries prior to synchronization with the system?  Yes  No

8. Attach an electrical one-line diagram showing all essential devices including GSU impedance, station arrangements, station service and connections to the transmission system (69 kV and higher), including the voltage levels.

9. Is a Transmission Proposed Plan Application required?  Yes  No

a. If "Yes," identify the Transmission Applications associated with this Application, the Transmission Owner or Market Participant responsible for filing and the date the Application was/will be submitted.

\_\_\_\_\_

10. System Reliability Studies

Short Circuit  Completed  Planned  Not Needed

Load Flow  Completed  Planned  Not Needed

Stability  Completed  Planned  Not Needed

Other \_\_\_\_\_  Completed  Planned  Not Needed

Application Identification No. \_\_\_\_\_

**Additional Information**

(Only to be filled out if unit is <5MW & on the distribution system)

1. Provide the following information on the Location/Interconnection point.
  - a. Location/Interconnection Point (Indicate point of coupling with utility system by specifying distribution feeder or transmission line name(s) or substation name. Distribution facilities should include the transmission facility substation(s) that the distribution facilities are supplied from.)  
\_\_\_\_\_
  - b. Address of Plant  
Street Address \_\_\_\_\_  
Town or City \_\_\_\_\_  
County \_\_\_\_\_ State \_\_\_\_\_ Zip Code \_\_\_\_\_
  - c. Specify the interconnection bus name and the voltage level the unit is connected to.  
Name: \_\_\_\_\_ Voltage Level (kV): \_\_\_\_\_
  - d. Specify the modeled PSS/E bus name and number that is electrically closest to where the unit is interconnected Name: \_\_\_\_\_ Number: \_\_\_\_\_
  - e. What is the maximum net power injection at the point of interconnection? \_\_\_\_\_(MW)
  - f. Is there load reduced by operating this generation? (Check Yes or No)  Yes  No  
If “Yes:”  
By how much is the load reduced? \_\_\_\_\_(MW)  
Where is the load located? \_\_\_\_\_

(Check the appropriate box and provide appropriate diagram(s))

- The unit is connected to the power system at transmission voltage (69 kV or higher). Provide an electrical one-line diagram showing all essential devices including GSU impedance, station arrangements, station service and connections to the bulk power system, including the voltage levels below 69 kV.
- The unit is connected to the distribution system. Provide one-line diagram(s) showing the unit connection and where the distribution network connects to the bulk power system

2. Provide the following information on fuel used by the unit.
  - a. List the unit's primary energy source code (from “Energy Sources” listed on the following page)  
\_\_\_\_\_
  - b. List the unit’s secondary energy source code (from “Energy Sources” listed on the following page)  
\_\_\_\_\_
3. Comments:

Application Identification No. \_\_\_\_\_

8.0 Attachment 2 – Transmission Facilities Proposed Plan Application

TRANSMISSION FACILITIES PROPOSED PLAN APPLICATION

ISO New England Planning Procedure 5-1

- 1. Applicant \_\_\_\_\_ Date \_\_\_\_\_
- 2. Type of Facility \_\_\_\_\_ In-Service Date \_\_\_\_\_
- 3. Transmission Line and/or Substations
  - a. From \_\_\_\_\_ To \_\_\_\_\_  
(Terminal - Name - Location) (Terminal - Name - Location)
  - b. Third Terminal or tap (if any) \_\_\_\_\_  
(Name - Location)
  - c. Distance - Overhead \_\_\_\_\_ miles    Underground \_\_\_\_\_ miles    Design Voltage \_\_\_\_\_ KV  
Conductor Size \_\_\_\_\_    Initial Operation \_\_\_\_\_ KV
  - d. Proposed Relaying:  
Type of line relaying  
Backup relaying  
Stuck breaker  
Special protective relaying schemes
- 4. Transformer Rating \_\_\_\_\_ MVA    HV \_\_\_\_\_ KV    LV \_\_\_\_\_ KV    Tertiary \_\_\_\_\_ KV  
Parameters in percent on a 100 MVA Base  
Resistance \_\_\_\_\_ -R    Reactance \_\_\_\_\_ -X
- 5. Attach simplified one-line diagram(s) of transmission and/or substations with breaker configuration, indicating existing and proposed additions or changes on construction.  
Comments: \_\_\_\_\_
- 6. Reliability Studies
 

Short Circuit:	Completed	<input type="checkbox"/>	Planned	<input type="checkbox"/>	Not Needed	<input type="checkbox"/>	Explanation Attached	<input type="checkbox"/>
Load Flow:	Completed	<input type="checkbox"/>	Planned	<input type="checkbox"/>	Not Needed	<input type="checkbox"/>	Explanation Attached	<input type="checkbox"/>
Stability:	Completed	<input type="checkbox"/>	Planned	<input type="checkbox"/>	Not Needed	<input type="checkbox"/>	Explanation Attached	<input type="checkbox"/>
Other _____	Completed	<input type="checkbox"/>	Planned	<input type="checkbox"/>	Not Needed	<input type="checkbox"/>	Explanation Attached	<input type="checkbox"/>
- 7. a. If this Application is associated with a Generation Proposed Plan Application, identify the Generator Proposed Plan Application(s) and the Market Participant(s) or Transmission Owner(s) responsible for submitting it. N/A   
\_\_\_\_\_
- b. Has the Generation Proposed Plan Application(s) been submitted? Yes  No   
If "No," when will the Application(s) be submitted? \_\_\_\_\_  
Application Identification No. \_\_\_\_\_

**9.0 Attachment 3 – Generator Notification Form for Units or Changes of Less Than 5 MW**

**ISO NEW ENGLAND GENERATOR NOTIFICATION FORM FOR  
UNITS OR CHANGES OF LESS THAN 5 MW**

ISO New England Planning Procedure 5-1  
Page 1 of 4

**Submit Completed Form to [ProposedPlans@iso-ne.com](mailto:ProposedPlans@iso-ne.com)**

**Contact Customer Service at 413-540-4220 or [custserv@iso-ne.com](mailto:custserv@iso-ne.com) to begin market system asset registration process**

Applicant \_\_\_\_\_ Date \_\_\_\_\_

Generation Owner (if different than Applicant) \_\_\_\_\_

Contact Person \_\_\_\_\_

Phone # (\_\_\_\_) \_\_\_\_\_ Fax # (\_\_\_\_) \_\_\_\_\_ E-mail \_\_\_\_\_

- 1. Station Name \_\_\_\_\_
  - a. Location/Interconnection Point (Indicate point of coupling with utility system by specifying distribution feeder or transmission line name(s) or substation name. Distribution facilities should include the transmission facility substation(s) that the distribution facilities are supplied from.)

\_\_\_\_\_

**10.0 Attachment 4 – Proposed Plan Application Submittal Procedure**

**PPA SUBMITTAL PROCEDURE**

Market Participants or Transmission Owners will follow the “Proposed Plan Application Submittal Procedure” contained herein for the submittal of their proposed plans for review pursuant to Section I.3.9 of the ISO New England Inc. Transmission, Markets and Service Tariff (the “Tariff”). The intent of this procedure is to detail the information required under Planning Procedure Nos. 5-1 (PP5-1) and 5-3 (PP5-3) to assure an efficient Proposed Plan Application (PPA) review by the Reliability Committee (RC) and by the ISO. PP5-1 and PP5-3 may be found on the ISO Website at:

<http://www.iso-ne.com/participate/rules-procedures/planning-procedures>.

The most recent revision of this Attachment 5 may be found on the ISO Website at:

[http://www.iso-ne.com/static-assets/documents/trans/pp\\_tca/forms/ppa\\_submittal\\_procedure.pdf](http://www.iso-ne.com/static-assets/documents/trans/pp_tca/forms/ppa_submittal_procedure.pdf)

**Notification**

The Market Participant or Transmission Owner is encouraged to discuss a proposed project (or project revision) with the ISO and, as necessary, the Transmission Owner for guidance regarding the appropriate level of study required and whether a PPA or a “Generator Notification Form for



Units or Changes of Less Than 5 MW” should be submitted to the ISO. PPA forms may be found on the ISO Website at:

<http://www.iso-ne.com/system-planning/transmission-planning/proposed-plan-applications>.

A Market Participant or Transmission Owner wishing to discuss a proposed project with the ISO should notify the ISO via the e-mail address [ProposedPlans@iso-ne.com](mailto:ProposedPlans@iso-ne.com).

### **Submittal of Study Results and Proposed Plan Application Materials**

- **Level 0 Analysis**

PP5-1 Section 4 lists the types of projects that do not require a PPA submittal under this procedure. Pursuant to this procedure and procedure PP5-3, these types of project require Level 0 analysis. However, subject to the provisions of PP5-1, a “Generator Notification Form for Units or Changes of Less Than 5 MW”, should be submitted to the ISO for proposed projects which are less than 5 MWs of new or increased generation. These submittals shall be made to the ISO via the email address [ProposedPlans@iso-ne.com](mailto:ProposedPlans@iso-ne.com) for ISO review and for RC distribution.

- **Level I Analysis**

In the case of a project requiring Level I analysis, as defined in PP5-3, the PPA submittal is for information only, and the reporting of any study results is not required. The Market Participant or Transmission Owner may submit the PPA requiring Level I analysis directly to the ISO for review and distribution. ISO may confer with potentially Affected Entities to confirm that no reporting of analysis is required and that the project requires Level I analysis.

The complete PPA package<sup>20</sup> for a project requiring Level I analysis shall be submitted to the ISO via e-mail to [ProposedPlans@iso-ne.com](mailto:ProposedPlans@iso-ne.com) and shall include:

- A cover letter that is addressed to the Chair of the Reliability Committee and requests RC review under Section I.3.9 of the Tariff. The letter must identify the project, the submitted PPA(s), the level of analysis (Level I), and additional related materials that are being submitted.
- PPA(s) completed in accordance with this PP 5-1.
- One-line diagram(s) showing the proposed modification(s).
- Additional materials related to the project, as may be requested by the ISO.
- Once the project PPA package is deemed complete, the RC Secretary shall provide the materials to the RC for their review.

- **Level II or III Analysis**

A project requiring Level II or III analysis requires RC and ISO review.

---

<sup>20</sup> Model submission in accordance with Figure 1 (and accompanying language) shall precede a PPA package submission.

- 1) The project's proponent must contact the ISO via e-mail at [ProposedPlans@iso-ne.com](mailto:ProposedPlans@iso-ne.com), to coordinate the review of the project.
- 2) The project proponent shall submit to the ISO, via e-mail at [ProposedPlans@iso-ne.com](mailto:ProposedPlans@iso-ne.com), the complete PPA package which includes a draft of each PPA for the project along with the study report(s).<sup>21</sup> The complete study report(s) shall include a project description of sufficient detail for review and one-line diagrams showing the elements of the project, and sufficient reporting of the analyses performed to demonstrate that the project will not have any significant adverse effects under Section I.3.9 of the Tariff. The project description must include any additional upgrades necessary to mitigate any adverse effects that may be identified during the review and any specific conditions regarding the construction sequencing of the elements within the project and with the elements of other projects that have been determined to have no adverse effects under Section I.3.9 of the Tariff.
- 3) The ISO review will ensure consistency of the project description with the one-line diagrams in the report. ISO Planning staff will ensure that the project report and draft PPA(s) are consistent.
- 4) When the ISO confirms that the study results adequately support the project, it will provide a recommendation letter to the RC indicating the project reports are complete and that the project will not have any significant adverse effects pursuant to Section I.3.9 of the Tariff. This recommendation letter will include any opinions expressed by Affected Entities regarding significant impacts that they believe to be insufficiently addressed.
- 5) After it has been confirmed that the study results adequately support the project, the Market Participant or Transmission Owner may submit a letter requesting Section I.3.9 review of the project to the RC Chair. The letter must identify the project, the submitted PPA(s), the level of analysis (Level II/III), the study report(s), and additional related materials that are being submitted. The letter shall be submitted to the ISO by email to [ProposedPlans@iso-ne.com](mailto:ProposedPlans@iso-ne.com).
- 6) ISO Planning staff will provide to the RC Secretary the PPA(s), study report(s) and any additional related materials that were identified in the letter to the RC Chair. The RC Secretary will coordinate the RC review of the project with the project proponent.

### General Requirements

The ISO will send an e-mail to the plan proponent to provide:

- confirmation of receipt of the project PPA materials or any appropriate modifications to the submitted materials; and
- verification of the submittal date of the complete project PPA package appropriate for review by the RC.

---

<sup>21</sup> Model submission in accordance with Figure 1 (and accompanying language) shall precede a PPA package submission.

The appropriate project PPA package will be forwarded to all appropriate ISO personnel, and then distributed to the RC prior to the meeting at which the project is to be considered.

The applicant should provide additional copies of project PPA materials to committee members upon request.