



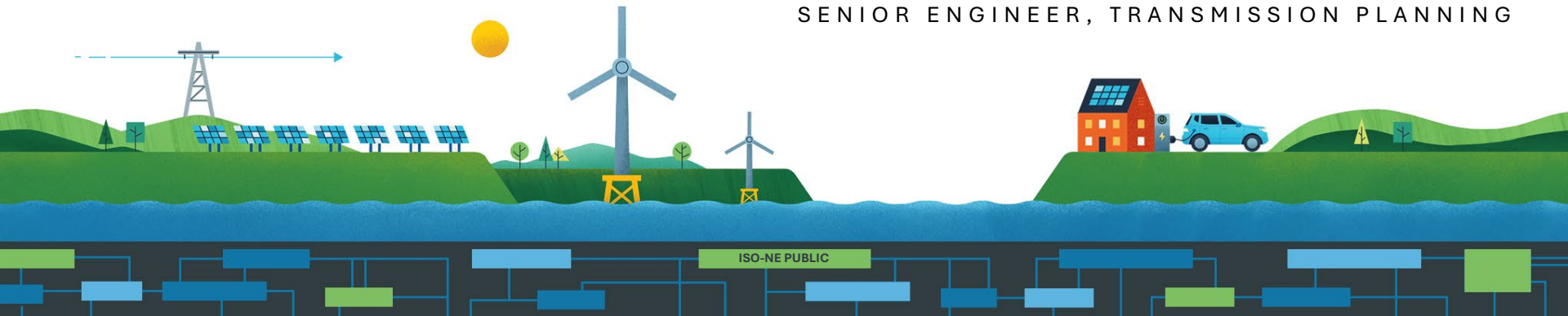
# RSP Project List and Asset Condition List June 2025 Update

---

## *Planning Advisory Committee Meeting*

Marvin Valencia Perez

SENIOR ENGINEER, TRANSMISSION PLANNING



# TABLE OF CONTENTS

	<b><u>Slide</u></b>
<i>Highlights of the RSP Project List Update</i>	3
<i>June 2025 RSP Project List Update</i>	4 – 9
<i>Status of Major Transmission Projects</i>	10
<i>Highlights of the Asset Condition List Update</i>	11 – 12
<i>June 2025 Asset Condition List Update</i>	13 – 19
<i>Next Steps</i>	20
<i>Appendix</i>	21 – 27

# Highlights of the RSP Project List Update

- **Major cost estimate changes greater than \$5M that occurred between the March and June 2025 Project List**
  - None
- **Two new projects**
- **Upgrades have been placed in-service since the March 2025 update**
  - None
- **No cancelled projects since the March 2025 update**



# June 2025 RSP Project List Update

- Two new projects

Project ID #	Transmission System Upgrades	Cost (in millions \$)	Primary Equipment Owner	Improvement/Need
1933	Install one 80 MVAR shunt reactor at the Electric Avenue 115 kV Substation (Massachusetts) Boston 2033 Solutions Study	22.3	Eversource	Resolve high voltage issues
1934	Protection systems modification associated with the Stoughton RAS at three 345 kV substations (Stoughton, West Walpole and Holbrook) and two 115 kV substations (Hyde Park and K-Street) (Massachusetts) Boston 2033 Solutions Study	3.7	Eversource	Resolve high voltage issues

# June 2025 RSP Project List Update, cont.

- **Upgrades have been placed in-service since the March 2025 update**
  - None



# June 2025 RSP Project List Update, cont.

- Cost Estimate Comparisons of Reliability Projects  
March vs. June 2025 Update**

	As of March 2025 Plan Update (in millions \$)	As of June 2025 Plan Update (in millions \$)	Change in Plan Estimate (in millions \$)
<b>MAJOR PROJECTS ***</b>			
Southeast Massachusetts/Rhode Island Reliability (SEMA/RI)	445	445	0
Greater Boston - North, South, Central, and Western Suburbs	1201	1201	0
New Hampshire (NH) 2029 Solutions	161	161	0
Upper Maine (UME) 2029 Solutions	151	151	0
Boston 2033 Solutions	0	26	26
<b>SUBTOTAL **</b>	<b>1958</b>	<b>1984</b>	<b>26</b>
<b>OTHER PROJECTS</b>	11419	11419	0
<b>NEW PROJECTS</b>	0	0	0
<b>TOTAL **</b>	<b>13377</b>	<b>13403</b>	<b>26</b>
Minus 'in-service'	-12956	-12956	0
<b>Aggregate estimate of active projects in the Plan **</b>	<b>421</b>	<b>447</b>	<b>26</b>

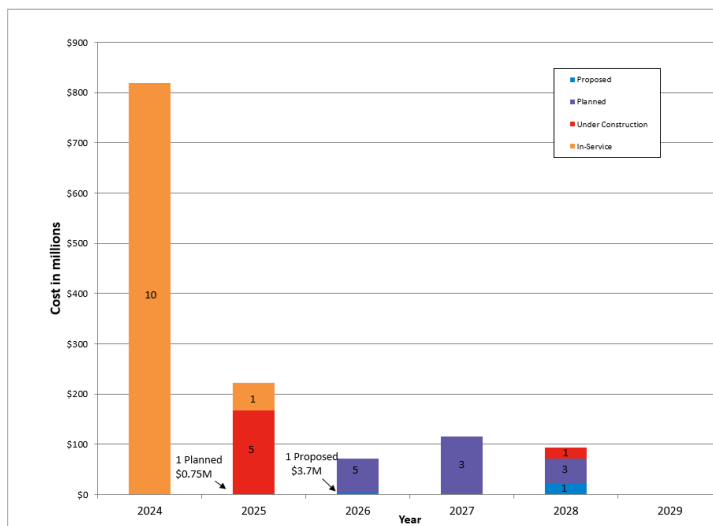
\* Transmission Owners provided all estimated costs, which may not meet the guidelines described in Planning Procedure 4, Attachment D.

\*\* May not sum exactly due to rounding.

\*\*\* The cost estimates for projects in the "Major Projects" category are moved to the "Other Projects" category once they are fully completed.

# June 2025 RSP Project List Update, cont.

- Investment of New England Transmission Reliability Projects by Status through 2029



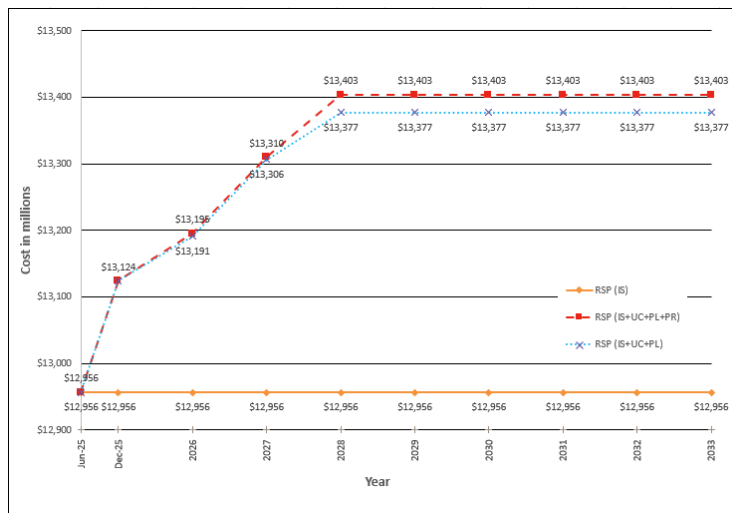
\* Numbers shown represent project quantities.

\*\* Future total \$ are shown at the end of the project. Totals do not reflect or show phasing in over time or the depreciation of prior projects. Total costs are associated with the year projects are placed in-service as reported in the Project List.



# June 2025 RSP Project List Update, cont.

- Cumulative Investment of New England Transmission Reliability Projects through 2033



\* IS – In Service, UC – Under Construction, PL – Planned, PR – Proposed

\*\* Future total \$ are shown at the end of the project. Totals do not reflect or show phasing in over time or the depreciation of prior projects. Total costs are associated with the year projects are placed in-service as reported in the Project List.

# June 2025 RSP Project List Update, cont.

- Reliability Project Counts and Aggregated Cost Estimates by Project Stage with Applied Accuracy Ranges\*

Project Stage (Status)	Component / Project / Plan Count	Estimate Range		Estimated Costs (\$millions)	Range	
		Minimum	Maximum		Minimum (\$millions)	Maximum
Proposed	2	-25%	25%**	26	20	33
Planned	12	-25%	25%	232	174	290
Under Construction	6	-10%	10%	189	170	207
<b>Total Plan</b>	<b>20</b>			*** <b>447</b>	<b>363</b>	<b>530</b>
In-Service	0	-10%	10%	0	0	0
Cancelled	0	-25%	25%	0	0	0

\* All costs are provided by Transmission Owners. The costs in the table reflect all projected in-service dates.

\*\* All estimates may not yet be at this level of accuracy; many estimates may be -25%/+50%.

\*\*\* May not add up due to rounding.

\*\*\*\* In-Service projects are those projects that went into service since the last update.

# Status of Major Transmission Projects

	PPA	TCA	Construction
Southeast MA/RI Reliability (SEMA/RI)	Approved 5/2017, 4/2018	Submitted	2018 - 2027
Greater Boston – North, South, Central and Western Suburbs	Approved 4/2015, 5/2015, 6/2016, 7/2019, 10/2020	Submitted	2010 - 2025
New Hampshire (NH) 2029 Solutions	Approved 1/2022, 6/2022	7/16/2024	2023 - 2025
Upper Maine (UME) 2029 Solutions	Approved 2/2022 (Versant Power) Approved 5/2022, 8/2023 (Avangrid)	Submitted (Versant power)  Not Submitted (Avangrid)	2024 - 2028
Boston 2033 Solutions	Not Approved	Not Submitted	2026 - 2028

# ASSET CONDITION LIST UPDATE



# Highlights of the Asset Condition List Update

- **Major cost estimate changes greater than \$5M that occurred between the March and June 2025 Asset Condition List**
  - (RI) NPCC Directory #1 Protection Modifications - Phase 4 (ACL 99)
    - Project status changed from Concept (no cost required) to Under Construction with a cost of \$5.1M. The project was presented at [the January 2024 PAC](#)
  - (MA) Bridgewater #16 Substation Asset Condition Upgrades (ACL 328)
    - Cost increase of \$11.8M due to escalation, revised construction schedule and outage coordination. The project was presented at [the April 2022 PAC](#)
  - (CT) South Naugatuck to Devon Rebuild - Segment 5 (Towantic - South Naugatuck) (ACL 375)
    - Cost reduction of \$13.9M as a results of refined engineering. The project was presented at [the February 2023 PAC](#)
  - (MA) Adams #21 Substation Relocation (ACL 400)
    - Cost increase of \$5.7M due to escalation, revised construction schedule and outage coordination. The project was presented at [the May 2023 PAC](#)
- **20 new projects totaling \$83.9M\***
  - Details on the next few slides
- **11 upgrades have been placed in-service since the March 2025 update totaling \$203.6M**
  - Details on the next few slides
- **No cancelled projects since the March 2025 update**

\* No cost is required for projects with a Concept status, the projected In-Service Date (ISD) for the 14 new 'Concept' projects is not provided in the Asset Condition List as the Transmission Owner does not presently have a target date.

# June 2025 Asset Condition List Update

- 20 New Projects

Project ID #	Transmission System Upgrades	Cost (in millions \$)	Primary Equipment Owner
465	NERC CIP-014 - Physical Security Upgrades - Round 2 / EMA Site 1 (Massachusetts)	3.4	Eversource
466	NERC CIP-014 - Physical Security Upgrades - Round 2 / EMA Site 4 (Massachusetts)	1.7	Eversource
467	A-179 115 kV Line Asset Condition Refurbishment (Massachusetts)	12.0	National Grid, USA
468	D-156 115 kV Line Asset Condition Refurbishment (Massachusetts)	19.0	National Grid, USA
469	Bean Hill Substation Replacement (Connecticut)	29.0	CMEEC
470	Underground Cable Modernization Program - Rebuild Project, Lines 148-522X/Y (Massachusetts)	*	Eversource
471	Underground Cable Modernization Program - Rebuild Project, Lines 329-520/521 (Massachusetts)	*	Eversource

\* No cost is required for projects with a Concept status, the projected In-Service Date (ISD) for the 14 new 'Concept' projects is not provided in the Asset Condition List as the Transmission Owner does not presently have a target date.

# June 2025 Asset Condition List Update, cont.

- 20 New Projects

Project ID #	Transmission System Upgrades	Cost (in millions \$)	Primary Equipment Owner
472	Underground Cable Modernization Program - Rebuild Project, Lines 329-512/513 (Massachusetts)	*	Eversource
473	Underground Cable Modernization Program - Rebuild Project, Lines 346/365 (Massachusetts)	*	Eversource
474	Underground Cable Modernization Program - Rebuild Project, Lines 496-528/529 (Massachusetts)	*	Eversource
475	Underground Cable Modernization Program - Rebuild Project, Lines 385-510/511 (Massachusetts)	*	Eversource
476	Underground Cable Modernization Program - Rebuild Project, Lines 351/358 (Massachusetts)	*	Eversource
477	Underground Cable Modernization Program - Rebuild Project, Lines 514-510/511 (Massachusetts)	*	Eversource
478	Underground Cable Modernization Program - Rebuild Project, Lines 514-512/513 (Massachusetts)	*	Eversource

\* No cost is required for projects with a Concept status, the projected In-Service Date (ISD) for the 14 new 'Concept' projects is not provided in the Asset Condition List as the Transmission Owner does not presently have a target date.

# June 2025 Asset Condition List Update, cont.

- 20 New Projects

Project ID #	Transmission System Upgrades	Cost (in millions \$)	Primary Equipment Owner
479	Underground Cable Modernization Program - Rebuild Project, Lines 329-530/531 (Massachusetts)	*	Eversource
480	Underground Cable Modernization Program - Rebuild Project, Lines 385-512/513 (Massachusetts)	*	Eversource
481	Underground Cable Modernization Program - Rebuild Project, Line 211-514X (Massachusetts)	*	Eversource
482	Underground Cable Modernization Program - Rebuild Project, Lines 423-515X/Y (Massachusetts)	*	Eversource
483	Underground Cable Modernization Program - Rebuild Project, Lines 488-518X/Y (Massachusetts)	*	Eversource
484	Install four 69 kV breakers at the Royalston Station (Massachusetts)	18.8	National Grid, USA

\* No cost is required for projects with a Concept status, the projected In-Service Date (ISD) for the 14 new 'Concept' projects is not provided in the Asset Condition List as the Transmission Owner does not presently have a target date.

# June 2025 Asset Condition List Update, cont.

- 11 Projects Placed In-Service

Project ID #	Transmission System Upgrades	Cost (in millions \$)	Primary Equipment Owner
159	Rebuild 88003A-3 Line (Allings Crossing – Elm West) (Connecticut)	26.8	United Illuminating Company
160	Rebuild 88003B-3 Line (Allings Crossing – Elm West) (Connecticut)	26.8	United Illuminating Company
266	345 kV Line Structure and PINCO insulator Replacement - Line 387 (Connecticut)	12.8	Eversource
267	345 kV Line Structure and PINCO insulator Replacement - Line 3041 (Connecticut)	18.5	Eversource
318	115 kV Structure Replacements - 211-508 Line (Massachusetts)	5.8	Eversource
333	Construct new Stafford Street Substation (Massachusetts)	60.0	National Grid, USA
335	G-185S/L-190 115 kV OPGW Installation from Davisville Tap to West Kingston (L-190 to Wickford Junction) (Rhode Island)	8.5	Rhode Island Energy
343	Timber Swamp Station 345 kV Breaker Replacements (New Hampshire)	7.4	Eversource

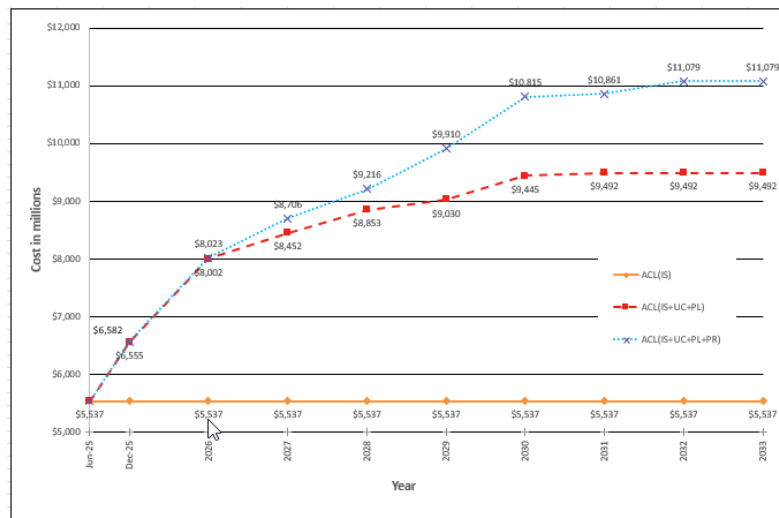
# June 2025 Asset Condition List Update, cont.

- 11 Projects Placed In-Service

Project ID #	Transmission System Upgrades	Cost (in millions \$)	Primary Equipment Owner
350	Middlebury Substation Asset Condition Refurbishment (Vermont)	9.6	Vermont Electric Power Company
407	Laminated Wood Structure Replacement Program Phase III and OPGW - R169 (New Hampshire)	8.7	Eversource
408	Laminated Wood Structure Replacement Program Phase III and OPGW - F162 (New Hampshire)	18.8	Eversource

# June 2025 Asset Condition List Update, cont.

- Cumulative Investment of New England Asset Condition Projects through 2033

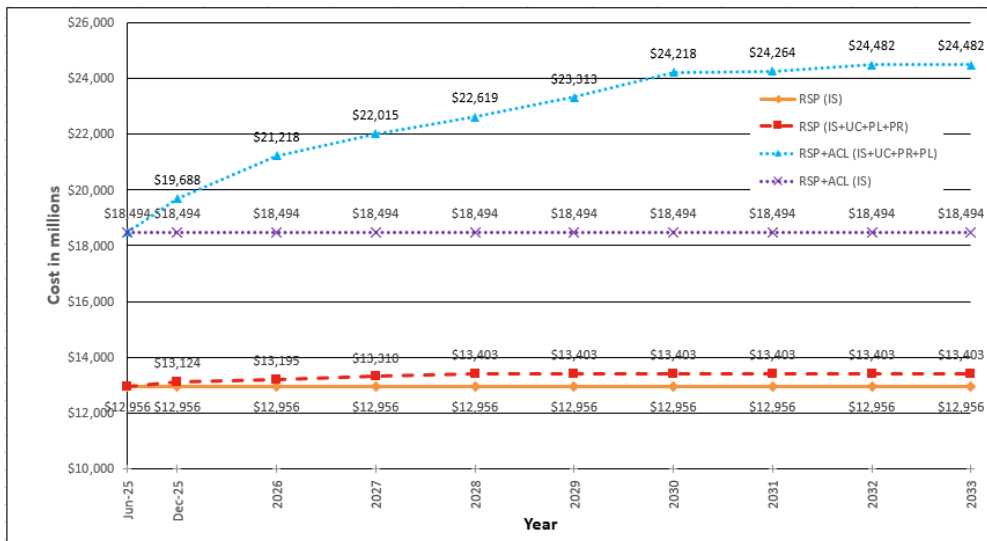


\* IS – In Service, UC – Under Construction, PL – Planned, PR – Proposed

\*\* Future total \$ are shown at the end of the project. Totals do not reflect or show phasing in over time or the depreciation of prior projects. Total costs are associated with the year projects are placed in-service as reported in the Project List.

# June 2025 Asset Condition List Update, cont.

- Cumulative Investment of New England Transmission Reliability and Asset Condition Projects through 2033



\* IS – In Service, UC – Under Construction, PL – Planned, PR – Proposed

\*\* Future total \$ are shown at the end of the project. Totals do not reflect or show phasing in over time or the depreciation of prior projects. Total costs are associated with the year projects are placed in-service as reported in the Project List.

# Next Steps

- Please provide comments related to the project lists to [pacmatters@iso-ne.com](mailto:pacmatters@iso-ne.com) by July 1, 2025
- The final version of the RSP Project list, Asset Condition list, and the presentation will be posted on the [RSP Project List and the Asset Condition List](#) website, along with responses to any written stakeholder feedback received, following the comment period



# Questions



# APPENDIX



# RSP Project List

- **Project List Column Definitions for**
  - Reliability Projects
  - Interconnection Projects
  - Market Efficiency Upgrades
  - Elective Projects



# RSP Project List – Column Definitions

- **Part Number (Part #)**
  - The Part #'s designate the 'need' category of the project\*
    - Part 1: these projects are Reliability Upgrades
      - 1a Planned (must be the preferred solution to solve the needs and if required, have I.3.9 approval) or Under Construction
      - 1b Proposed (is supported by a Solutions Study or a Competitive Solution Process)
    - Part 2: these projects are Generator Interconnection Upgrades
      - 2a Planned (I.3.9 approval with Interconnection Agreement including FCM related transmission upgrades to meet the Capacity Capability Interconnection Standard), or Under Construction
      - 2b Proposed (at a minimum, a completed System Impact Study and I.3.9 approval but no Interconnection Agreement)
    - Part 3: these projects are Market Efficiency Upgrades
      - 3a Planned (must be the preferred solution to solve the needs and have I.3.9 approval) or Under Construction
      - 3b Proposed (is supported by a Competitive Solution Process)
    - Part 4: these projects may be promoted by any entity electing to support the cost of transmission changes. The entity sponsoring the changes will have their own justification for their actions
      - 4a Planned (I.3.9 approval with Interconnection Agreement) or Under Construction
      - 4b Proposed (I.3.9 approval but without Interconnection Agreement)

\* Original categories are not changed when a project is placed 'In-Service' or 'Cancelled'.



# RSP Project List – Column Definitions, cont.

- **Project ID**
  - The Project ID is generated by ISO-NE System Planning
- **Primary Equipment Owner**
  - The company listed here is the responsible equipment owner/provider designated to design and implement the project
- **Other Equipment Owner**
  - For projects that involve multiple Transmission Owners, the company listed here is also a responsible equipment owner/provider designated to design and implement the project
- **Projected Month/Year of In-Service**
  - The month/year entered is the date the project is expected to be placed in service
- **Major Project**
  - Name is given to a project that consists of smaller subprojects
- **Project/Project Component**
  - The month/year entered is the date the project is expected to be placed in service
  - A brief, high-level description of the project is entered her
    - Includes major pieces of substation equipment and/or types of line work to be performed

# RSP Project List – Column Definitions, cont.

- **Status**
  - In Service
    - The project has been placed in operation
  - Under Construction
    - The project has received necessary approvals and a significant level of engineering or construction is underway
  - Planned
    - A regulated transmission solution upgrade that has been approved by the ISO pursuant to Section I.3.9 of the Tariff if required, or
    - An interconnection related transmission upgrade that has been approved by the ISO pursuant to Section I.3.9 of the Tariff with Interconnection Agreement
  - Proposed
    - A regulated transmission solution that has been selected by the ISO in response to a Needs Assessment and communicated to PAC, or
    - An interconnection related transmission upgrade that has been approved by the ISO pursuant to Section I.3.9 of the Tariff, but without Interconnection Agreement
  - Cancelled
    - Project has been cancelled

\* On December 10, 2019, FERC accepted Tariff changes that removed the 'Concept' category.

# RSP Project List – Column Definitions, cont.

- **PPA Approval (Review of Market Participant’s Proposed Plans)**
  - A date in this column signifies when the project received approval pursuant to Section I.3.9 of the ISO-New England Tariff. This approval indicates that the project will have no adverse impact on the stability, reliability, or operating characteristics of the system.
    - A ‘no’ indicates that an approval is required, but has not been received yet
    - An ‘NR’ indicates that an I.3.9 approval is not required
- **TCA Approval (Transmission Cost Allocation)**
  - A date in this column signifies when the project PTF costs were reviewed and approved. This approval indicates that it has been agreed whether, and by how much, the scope of the project and associated costs exceed regional needs
    - An ‘NR’ indicates that a TCA approval is not applicable because the project has been cancelled, has no/minimal PTF cost, or is associated with the interconnection of a resource or Elective Transmission Upgrade
- **Estimated Costs**
  - The PTF project cost estimate presented here should be the best estimate available. It is understood that the estimate accuracy may vary dependent on the maturity of the project. Accuracy tolerances for these estimates are targeted as follows:
    - Proposed Project that has been reviewed and approved to proceed by ISO-NE (+50%/-25%)
    - I.3.9-Approved Project (+/-25%), and
    - TCA-Approved Project (+/-10%)
  - An “NR” indicates that the project cost is not eligible for regionalization