

# Overlay Network Expansion (ONE) Transmission: Concept for Discussion

*Planning Advisory Committee*

April 14, 2021

**New England States Committee on Electricity**



# Presentation Objective

- To solicit PAC and ISO-NE feedback**
- **constructive, critical, or any other** -
  - on the ONE Transmission concept**
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This concept is one potential approach to transmission planning. It does not incorporate, and should not be viewed as reflecting, all needed planning changes that NESCOE has identified.

- ✓ As one example, we appreciate ISO-NE's responsiveness to the need for long-term analysis as expressed in the Vision Statement - the *2050 Transmission Study* - and for associated tariff changes. This is not a substitute. Tariff changes related to the Vision Statement are priority and should proceed this calendar year.

ONE Transmission is a concept for feedback, not a NESCOE proposal; it does not represent any NESCOE Manager's preferred planning approach.

NESCOE appreciates views to assist the continuing evaluation of the ONE Transmission concept and other potential planning approaches.

## **NEW ENGLAND STATES' VISION FOR A CLEAN, AFFORDABLE, AND RELIABLE 21<sup>ST</sup> CENTURY REGIONAL ELECTRIC GRID**



- Growing clean energy resource mix “expected to have major implications for the region’s transmission system.”
- “ISO-NE currently does not conduct a routine transmission planning process that helps to inform all stakeholders of the amount and type of transmission infrastructure needed to cost-effectively integrate clean energy resources and DERs across the region. The need for such planning has become paramount.”
- Recommended that ISO-NE develop and implement a scenario-based transmission planning framework.

ONE Transmission is not intended to be the planning tool the Vision Statement calls for. That planning tool will likely require its own tariff changes and those priority changes should proceed timely on a separate track. ONE Transmission does, however, separately accord with the Vision’s identification of the need for new mechanisms to inform planning for the integration of clean energy resources.

# Background on Public Policy Planning

- Order 1000 required procedures to consider public policy-driven transmission needs
  - Two-step process: identification/evaluation
  - Importantly, there is no requirement to select or build a project
- Public policy planning cycles: 2017 and 2020
  - Sidebar: process elements critical to states back then - and not adopted - remain critical to creating necessary, fruitful, useful public policy planning processes going forward.
- NESCOE's *2019 Annual Report* proactively listed as one priority an assessment of whether the public policy transmission planning process could benefit from adjustment; there is no FERC directive to revisit the ISO-NE process

# Critical threshold considerations for *any* public policy transmission planning process



**Any** public policy transmission planning process must include many opportunities at various points in the PAC process where ISO-NE solicits input from states, stakeholders, and the public.



**There must be off-ramps** throughout the process to ensure that ISO-NE can elect not to pursue solutions or select projects in connection with public policy needs/options – decisions to be informed by these regularly scheduled state/stakeholder/public discussions.



- “ISO-NE has no role in setting public policy for the states.”
- Regular check-ins with states are essential to ensure that a need/option preference still exists and that a solution would satisfy state policy requirements per state officials’ judgment.

# ONE Tx

**Objective:** Integrate ISO-NE's only existing routine transmission planning process—system reliability planning—with the consideration of public policy-driven transmission options.

## Why?



**Information:** Routine, transparent planning process provides greater visibility into potential cost-effective investments to integrate clean power (see Vision Statement)

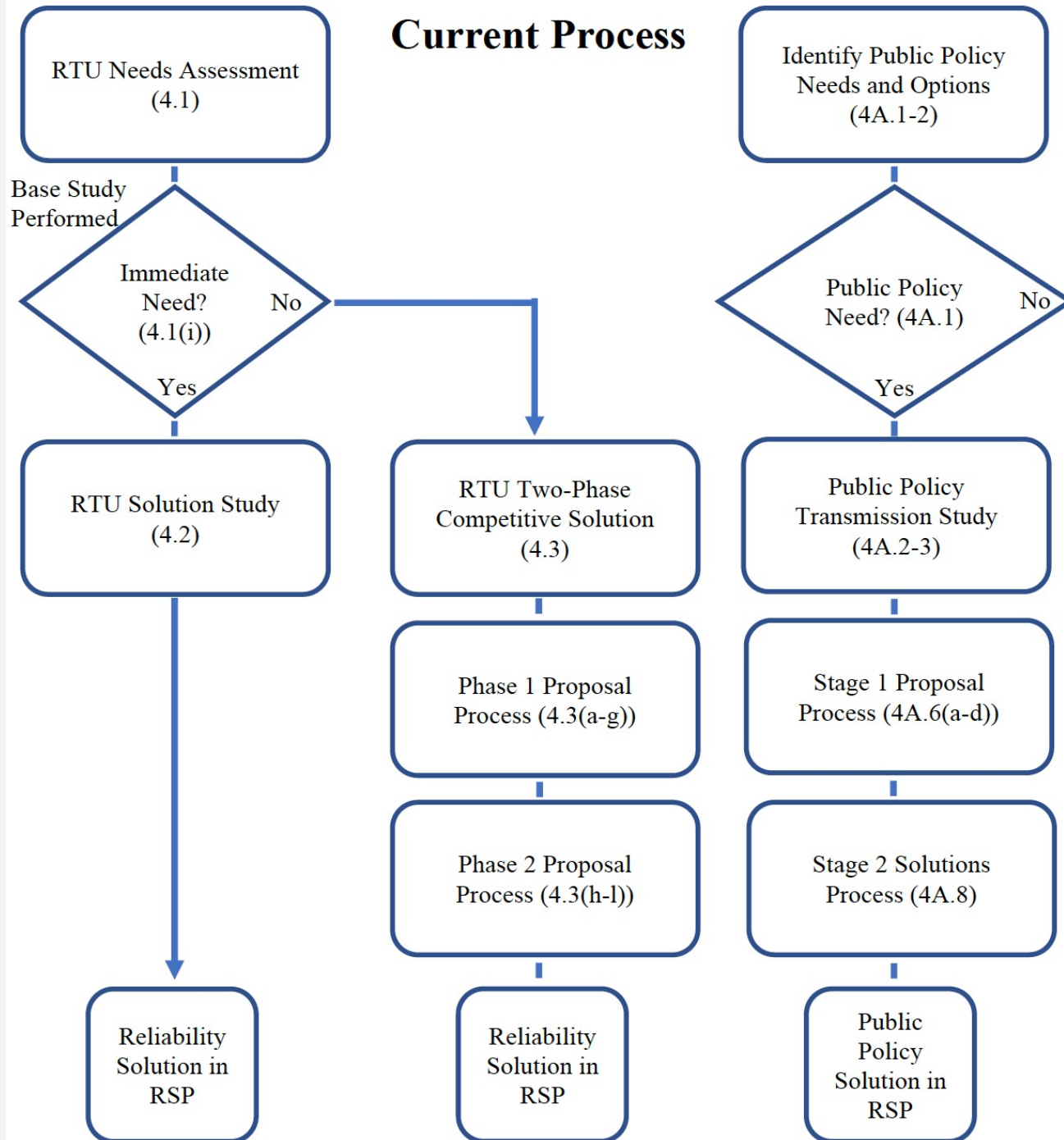


**Savings:** Opportunity to co-optimize infrastructure projects promoting both reliability and other public policy objectives

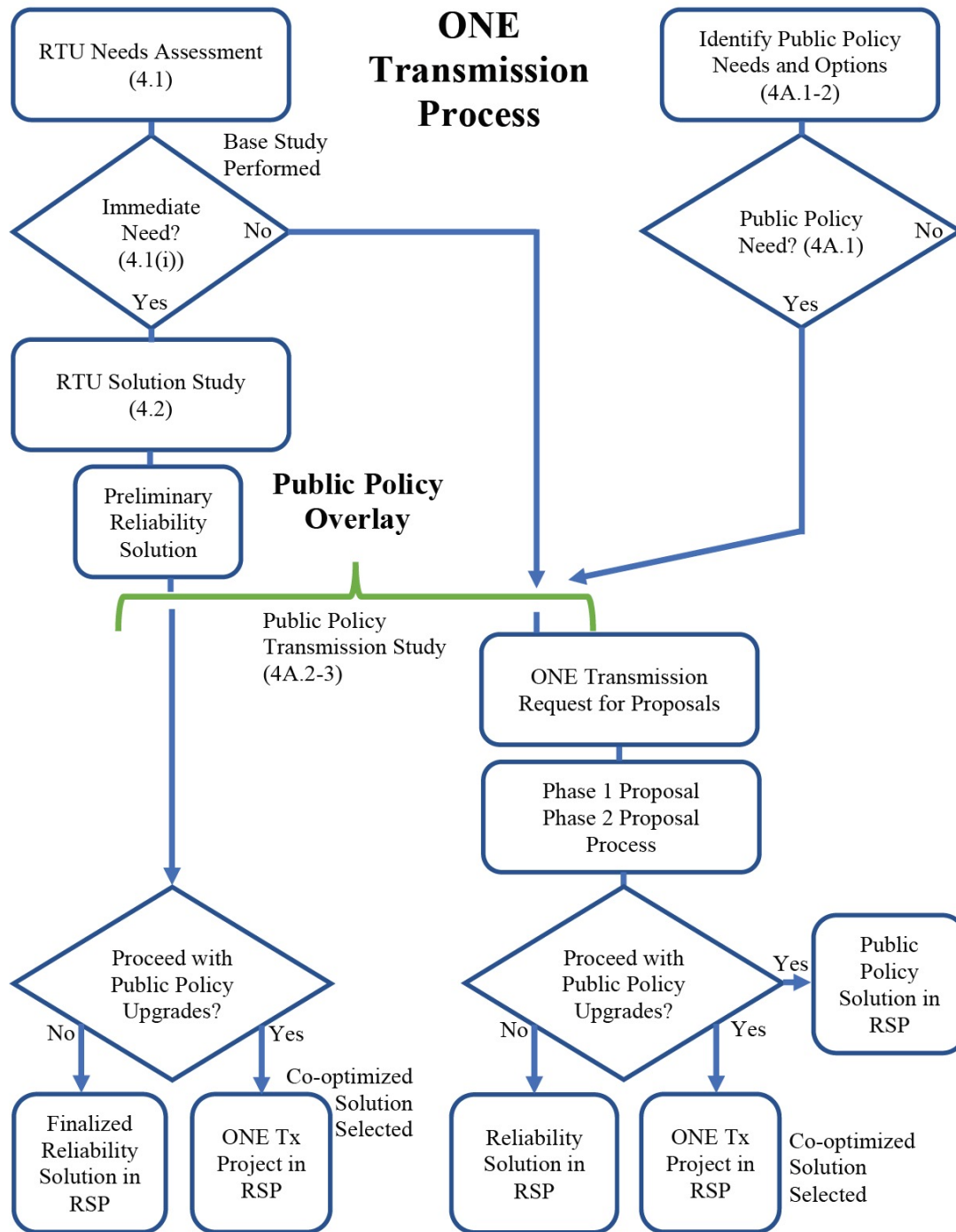


**Regulatory efficiency:** siting a multi-use transmission project at the same time avoids separate siting proceedings, potentially only years removed, involving the same right-of-way or substation

# Current Process



# ONE Transmission Process





# Feedback?



**Written feedback in advance of a subsequent PAC conversation appreciated**



**For transparency, please send to ISO-NE for posting on the PAC website ~ not to NESCOE**

# APPENDIX

Concept Narrative

# Step 1: Need/Option Identification

- **Reliability needs:**
  - ISO-NE would maintain flexibility to conduct a Needs Assessment in any area at any time as it does today.
    - (*possible change*) Establish a transmission planning cycle where ISO-NE rotates across different system areas to assess reliability system needs and/or ISO-NE assesses reliability system needs for New England as a whole.
  - Apply the same Needs Assessment process used today to develop a base study over a ten-year study horizon and identify reliability violations/needs.
  - If a reliability need is identified, ISO-NE determines if that need is immediate (within three years or less) or longer-term (greater than three years).
    - While beyond the scope of this presentation, NESCOE has supported reforms to the process of solving for time-sensitive needs. See [http://nescoe.com/wp-content/uploads/2020/01/ImmediateNeedTx\\_EL19-90\\_1-27-20.pdf](http://nescoe.com/wp-content/uploads/2020/01/ImmediateNeedTx_EL19-90_1-27-20.pdf) at pp. 13-18.
- **Public policy needs/options:** same as today – Section 4A process.

## Step 2: Integrating Reliability/Policy Planning

### **If Needs Assessment Identifies Immediate Need (3 years or less):**

- ISO-NE identifies preliminary reliability solution.
- ISO-NE overlays a study case for public policy needs/options.
  - ISO-NE can extend the horizon of its reliability model to reflect the integration of public-policy driven demand, infrastructure, and resource mix changes beyond the ten-year reliability timeframe, up to 20/30/40 years into the future.
  - Study would use resources in the interconnection queue or other assumed resources and identify potential delivery locations. Other assumptions include load growth and retirements.
  - Model would identify system constraints. As part of the integrated baseline reliability case, the model would also ensure that resource adequacy and transmission security reliability criteria are maintained.

## Cont'd

- ISO-NE performs a public policy transmission study to identify at a high-level potential options for addressing the identified constraints.
- Working with transmission providers/PAC/States, ISO-NE identifies a public policy solution to be integrated with the preliminary reliability solution and places the project in the Regional System Plan (RSP) as a ONE Transmission project.
- If ISO-NE does not identify a public policy solution to be integrated with the preliminary reliability solution, it confirms the preliminary reliability project as the preferred solution and places it in the RSP as a Reliability Transmission Upgrade (RTU).

## **If Needs Assessment Identifies Longer-Term Need (> 3 years):**

- After determining a long-term need, ISO-NE performs same public policy overlay and high-level study as described above.
- ISO-NE issues a ONE Transmission RFP.
- Allows bidders to submit projects to meet one or both identified needs – 10-year horizon reliability need and/or public policy need/option.
  - Co-optimized solutions favored.
- If ISO-NE selects a co-optimized solution, it's placed in RSP as ONE Transmission Project.
- If only a reliability project is selected, it's placed in the RSP as reliability project (RTU).
- If ISO-NE selects a reliability project and a public policy project but they are not co-optimized, they would be placed in the RSP under the existing, separate categories that exist today.

# Step 3: Cost Allocation

- As in Vision Statement, any changes to cost allocation will be held aside pending discussion on planning concepts.
- Most recent state communications cost allocation:
  - ✓ **March 15, 2019 New England Governors' Agreement** - ensure consumers in any one state do not fund the public policy requirements mandated by another state's laws.
  - ✓ **October 2020 Vision Statement** affirmed that view: "There is no intent to modify the New England Governors' agreement dated March 15, 2019 that States will ensure consumers in any one State do not fund the public policy requirements mandated by another State's laws."