

# *ISO New England System Planning Overview and Regional Update*

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*EIPC WEBINAR*

Stan Doe

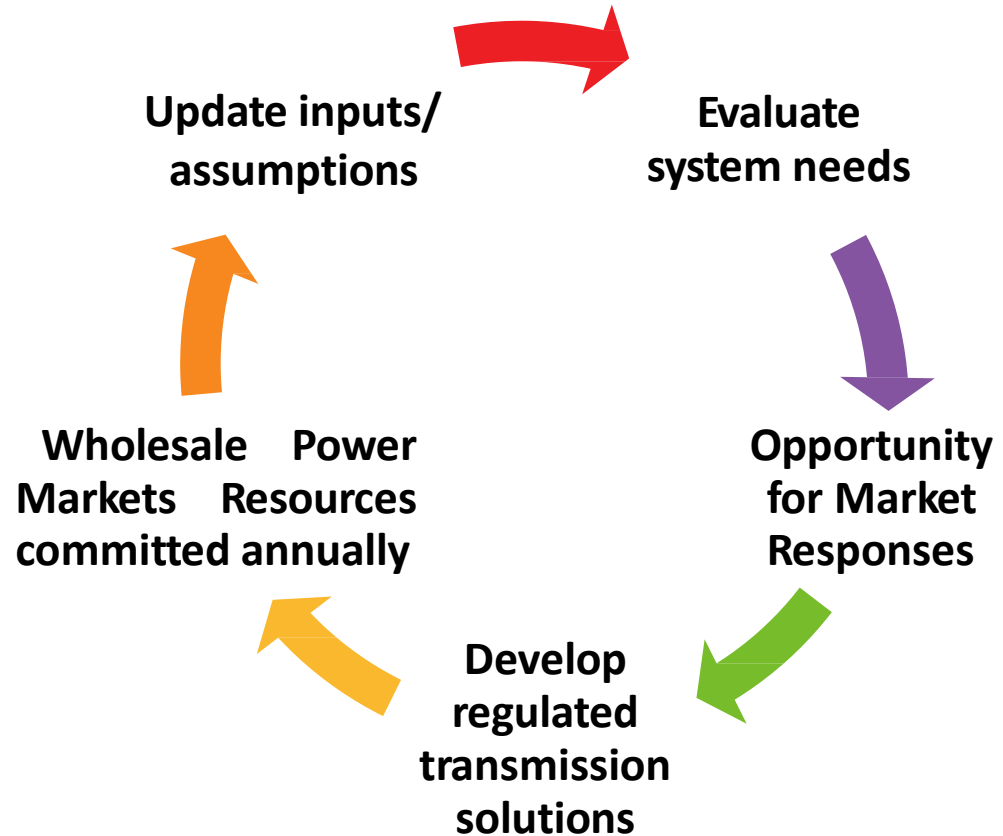
MANAGER, TRANSMISSION STRATEGY



# New England's System Planning Process

*Continuous, adaptive and successful*

- Open and transparent 10-year planning horizon reflects:
  - Update inputs/assumptions
  - Evaluate system needs
  - Market responses
  - Timing of future resource needs
- Provide information to marketplace and stakeholders
- Coordinate with neighboring areas



# Reliability Standards Guide Regional Planning

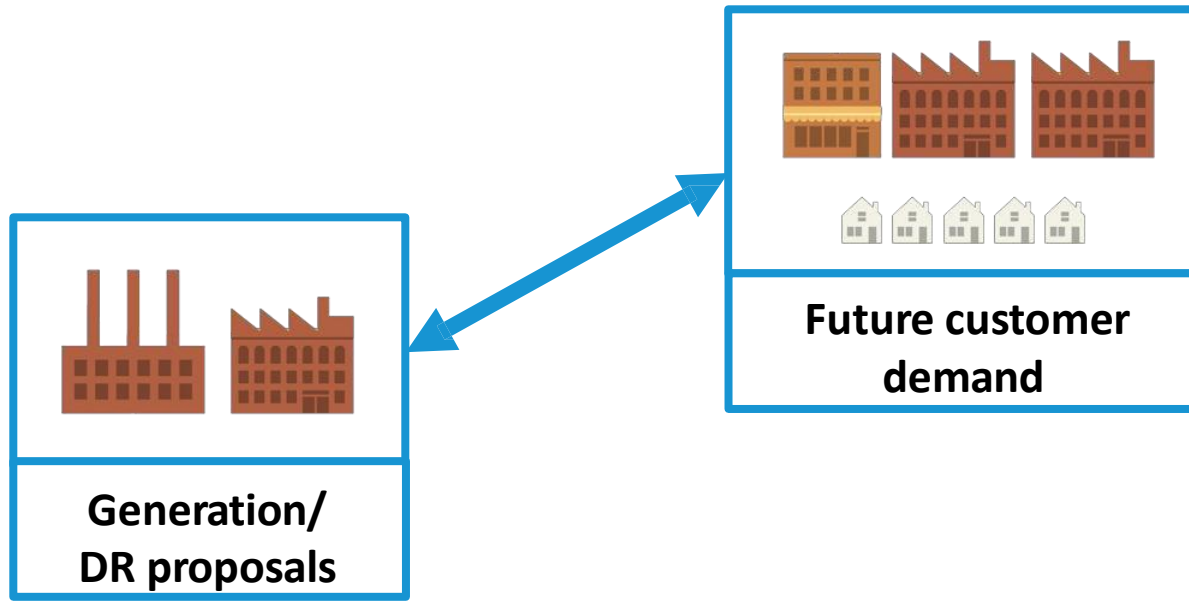
- North American Electric Reliability Corporation (NERC)
  - Reliability Standards for the Bulk Power System in North America
- Northeast Power Coordinating Council (NPCC)
  - Basic Criteria for the Design and Operation of Bulk Electric System
- ISO New England (ISO)
  - Reliability Standards for the New England area



Standards are used to ensure that the regional transmission system can reliably deliver power to consumers under a wide range of future system conditions.

## ISO performs open and transparent transmission system planning as part of its obligation to provide Regional Network Service

- Governed by FERC-approved tariff
- Summarized in annual Regional System Plan
- Stakeholder input through the Planning Advisory Committee
- Transmission Owners responsible for local transmission system
- Process revised to comply with FERC Order 1000



*New England has a well-established framework to develop infrastructure*

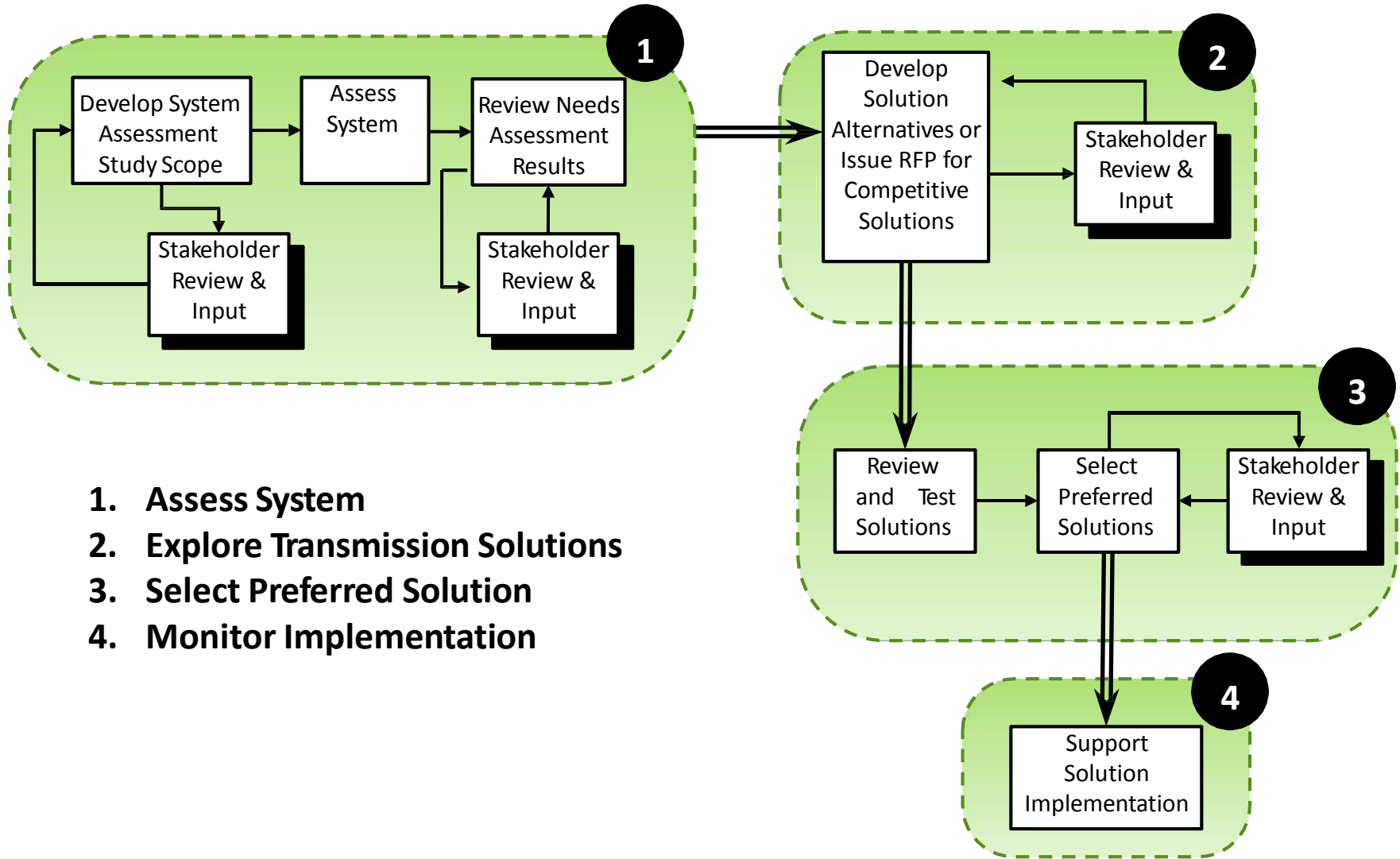
# FERC Order 1000

## Changes to intra- and interregional transmission planning and cost allocation practices in both ISO/RTO and non-ISO/RTO regions to:

- Introduce competition into the development of transmission solutions
- Support transmission development to meet public policy objectives
- Support interregional planning and transmission development with neighboring systems



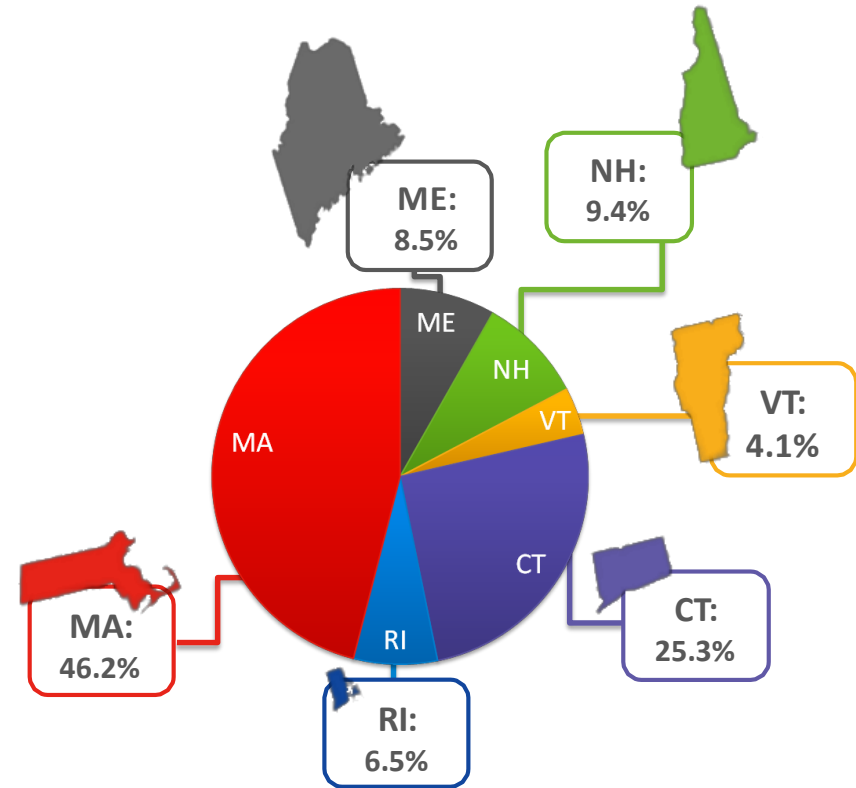
# Planning Process Milestones



*\*This process reflects changes implemented to meet FERC Order 1000.*

# How Are Transmission Costs Allocated?

- The New England electric grid is a tightly interconnected system; each state shares in the benefits of reliability upgrades
- The amount of electricity demand in an area determines its share of the cost of new or upgraded transmission facilities needed for reliability



Source: 2014 Network Load by State



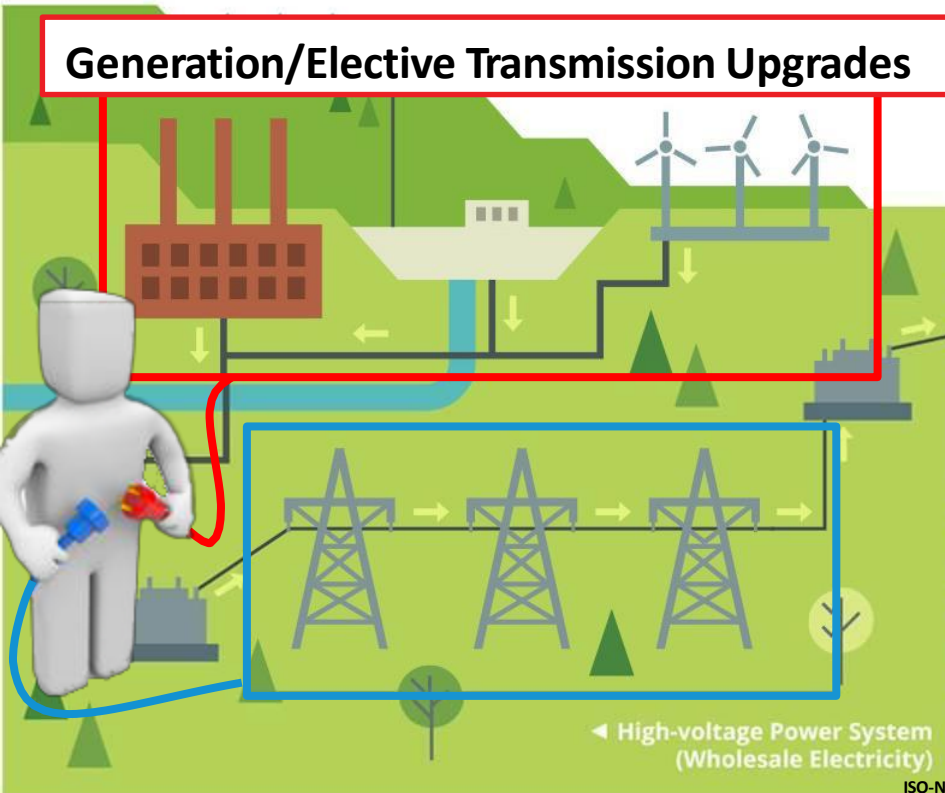
## Public Policy Upgrades

- 70% percent of the costs of upgrades are spread throughout the region
- 30% of the costs are allocated on a load ratio basis among states with a public policy planning need that the particular project addresses

# Connecting Resources to the Power System

ISO administers the FERC interconnection process

- Proposals are:
  - Maintained in the interconnection queue
  - Subject to ISO reliability review
  - Studied in the order received
- End result is a three-party Interconnection Agreement among the:
  - ISO
  - Generator or Elective Transmission Upgrade Sponsor
  - Interconnecting transmission owner





# Elective Transmission Proposals

## *Elective Transmission Upgrade (ETU)*

- Upgrade or interconnection to the PTF of the New England transmission system
- Voluntarily funded by the entity or entities that have agreed to pay for all the costs of the upgrade
- Not identified as needed for reliability, but must be studied by the ISO to ensure they can interconnect reliably



As of October 1, 2016, fifteen Elective Transmission Upgrade projects are in the ISO New England Interconnection Queue



# Questions?