

# Welcome to Wholesale Electricity Markets

## WEM 101

Peter Brunette  
Instructional Designer/Training Coordinator  
Market Training Department

## Disclaimer for Market Training

ISO New England (ISO) provides training to advance participant and stakeholder understanding of the New England Markets.

Since not all issues and requirements are addressed by the training, participants and other stakeholders should not rely solely on this training for information but should consult the *effective Markets, Services and Transmission Tariff* (“Tariff”) and the relevant *Market Manuals, Operating Procedures and Planning Procedures* (“Procedures”).

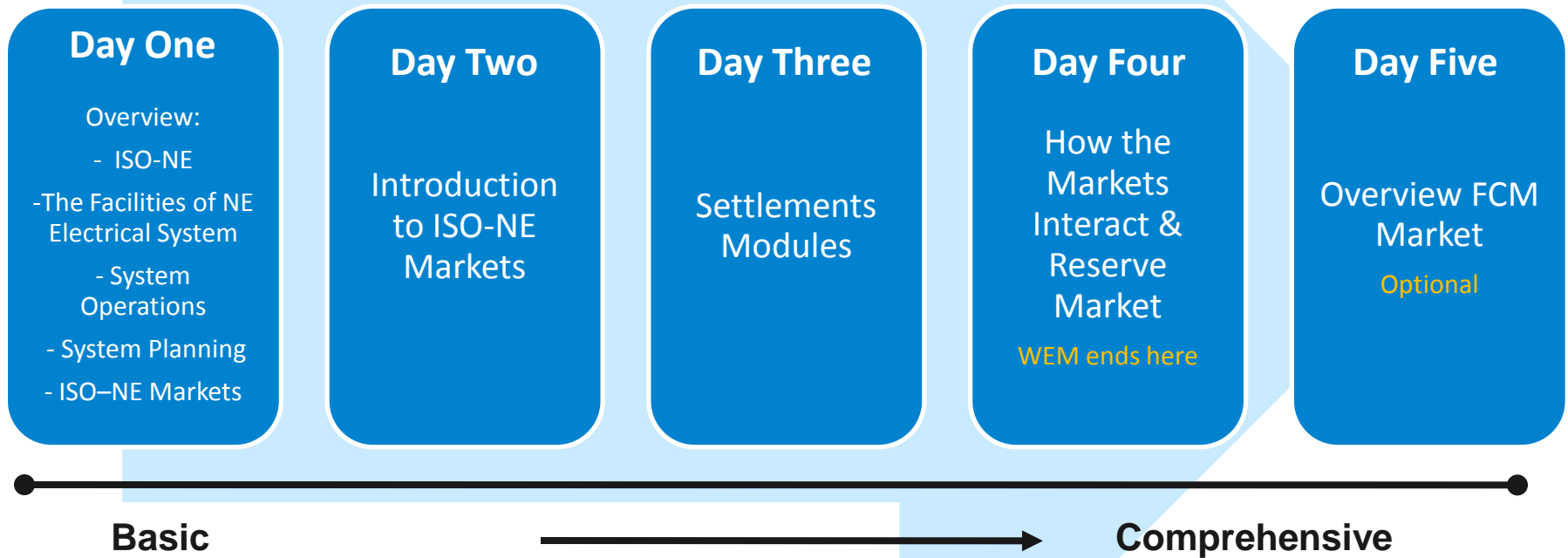
In case of a discrepancy between training provided by ISO and the Tariff or Procedures, the meaning of the Tariff and Procedures shall govern.

# Course Goal

- Provide a comprehensive overview of ISO New England's (ISO-NE) Wholesale Electricity Markets.

# Instructional Design

## WEM 101 Agenda



# Objectives

- At the completion of WEM 101 you will be able to:
  - ✓ List five New England Electricity Markets
  - ✓ State the three components of Locational Marginal Pricing
  - ✓ State the submittal times for Day-Ahead and Real-Time Energy Markets
  - ✓ Describe the settlement process for each market
  - ✓ State the Market Information Server (MIS) reports for each market.
  - ✓ Describe financial assurance requirements for participating in New England Wholesale Electric Markets
  - ✓ Explain the Major components of Forward Capacity Market+



**ISO New England's Wholesale Electricity Markets Course (WEM 101)**  
**Customer Class | September 19-23, 2011 | Location: Hotel Northampton, Northampton, MA**

Monday – September 19	Tuesday – September 20	Wednesday – September 21	Thursday – September 22	Friday – September 23
<p><b>WEM 101 begins 8:00 a.m.</b>  <b>Welcome &amp; Overview of ISO New England</b>                      Instructor: Peter Brunette                      Time: 8:00-8:30 a.m.</p> <p><b>Market Focus</b>  <b>Overview of Facilities of the New England Electrical System</b>                      Instructor: Tim Peet                      Time: 8:30-9:30 a.m.</p> <p><b>Break 9:30-9:45 a.m.</b></p> <p><b>Overview of System Operations</b>                      Instructor: Mike Knowland                      Time: 9:45-10:45 a.m.</p> <p><b>Break 10:45-11:00 a.m.</b></p> <p><b>Overview of System Planning</b>                      Instructor: Carissa Sedlacek                      Time: 11:00 a.m. - 12:00 p.m.</p>	<p><b>Market Focus</b>  <b>Day-Ahead Energy Market</b>                      Instructor: Dave Turner                      Time: 8:00-9:00 a.m.</p> <p><b>Break 9:00-9:10 a.m.</b>  <b>Forecast &amp; Scheduling</b>                      Instructor: Tom Dandeneau                      Time: 9:10-10:30 a.m.</p> <p><b>Break 10:30-10:40 a.m.</b></p> <p><b>Unit Commitment &amp; Dispatch</b>                      Instructor: Izudin Lelic                      Time: 10:40 a.m. - 12:00 p.m.</p>	<p><b>Settlements Focus</b>  <b>Energy Market Accounting (Day-Ahead &amp; Real-Time)</b>                      Instructor: Rachel Likover                      Time: 8:00-10:45 a.m.</p> <p><b>Break 9:45-10:00 a.m.</b></p> <p><b>Break 10:45-11:00 a.m.</b></p> <p><b>Net Commitment Period Compensation (NCPC)</b>                      Instructor: Rachel Likover                      Time: 11:00 a.m. - 12:00 p.m.</p>	<p><b>Market Focus</b>  <b>Reserve Market Overview and Settlements</b>                      Instructor: Rachel Likover                      Time: 8:00-10:30 a.m.</p> <p><b>Break 9:00-9:10 a.m.</b></p> <p><b>Break 10:30-10:40 a.m.</b></p> <p><b>Market Interactions: Internal Bilateral Transactions (IBTs), Increment Offers and Decrement Bids (Incs/Decs)</b>                      Instructor: Ron Coutu                      Time: 10:45 a.m. - 12:00 p.m.</p>	<p><b>Overview of Forward Capacity Market (FCM)</b>                      Instructor: Ron Coutu                      Time: 8:00-10:00 a.m.</p> <p><b>Break 10:00-10:15 a.m.</b></p> <p><b>Overview of Forward Capacity Market Settlement</b>                      Instructor: Rick Morrow                      Time: 10:15 a.m. - 12:00 p.m.</p> <p><b>Course ends at 12:00</b></p>
<b>Lunch 12:00-1:00 p.m.</b>				
<p><b>Market Focus</b>  <b>Introduction to New England's Wholesale Electricity Markets</b>                      Instructor: Tim Peet                      Time: 1:00-3:15 p.m.</p> <p><b>Break 2:00-2:10 p.m.</b></p> <p><b>Break 3:15-3:30 p.m.</b></p> <p><b>Doing Business with ISO New England</b>                      Instructor: Tim Peet / MSS                      Time: 3:30-4:10 p.m.</p> <p><b>Break 4:10-4:15 p.m.</b></p> <p><b>Overview of ISO New England Web Site</b>                      Instructor: Craig Kazin                      Time: 4:15-5:00 p.m.</p> <p><b>Welcome Reception 5:00-6:00 p.m.</b></p>	<p><b>Locational Marginal Pricing</b>                      Instructor: Izudin Lelic                      Time: 1:00-3:15 p.m.</p> <p><b>Break 2:00-2:15 p.m.</b></p> <p><b>Break 3:15-3:30 p.m.</b></p> <p><b>Financial Transmission Rights (FTRs)</b>                      Instructor: John Lally                      Time: 3:30 - 4:30 p.m.</p>	<p><b>Net Commitment Period Compensation (NCPC) (cont.)</b>                      Instructor: Rachel Likover                      Time: 1:00-2:00 p.m.</p> <p><b>Break 2:00-2:15 p.m.</b></p> <p><b>Financial Assurance</b>                      Instructor: Kendra Radner                      Time: 2:15-3:15 p.m.</p> <p><b>Break 3:15- 3:25 p.m.</b></p> <p><b>External Transactions</b>                      Instructor: Mike Zeoli                      Time: 3:25 - 4:45 p.m.</p>	<p><b>Market Interactions (cont.)</b>                      Instructor: Ron Coutu                      Time: 1:00-2:30 p.m.</p> <p><b>Break 2:00- 2:15 p.m.</b></p> <p><b>Break 2:30- 2:45 p.m.</b></p> <p><b>Overview of Demand Response in New England Markets</b>                      Instructor: Ron Coutu                      Time: 2:45-3:30 p.m.</p>	

# Administrative Details

- Fire escapes
- Restrooms
- Please turn cell phones and pagers to silent
- Do not use laptop, BlackBerry, or iPhone during class
- Instructors (people who do the work)
- Breaks
- Evaluations (provided in the front pocket of your binder)
- Glossary & Acronyms

# Ground Rules

- Please feel free to ask questions during the presentation
- Material is overview/introduction only. If you have specific questions, please see us after the presentation
- Please be sensitive and allow others to ask questions
- Training class is not a Market's Committee meeting on the Market Rules
- Unresolved questions are put in the "Parking Lot" with answers provided throughout the week
- Have fun!

# Evaluation

## Module Title / Instructor

Assure you are completing the correct evaluation.

ISO new england

WEM 101 - Day-Ahead Energy Markets - Dave Turner  
Training Evaluation

Let your opinion be heard and help us improve our training!

Please evaluate each of the main categories (highlighted in bold) as well as each sub-item on a scale of 1 to 5 (Poor to Excellent). Enter an "X" inside the appropriate box. Please do not enter more than one "X" per line.

Response Definition: 1=Poor 2=Fair 3=Neutral 4=Good 5=Excellent	1	2	3	4	5
<b>Overall course rating</b> .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Course met my needs and was useful .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Course met stated purpose and objectives .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Overall quality of course content</b> .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Design and quality of presentation and training material .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Logical organization and sequencing of information .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sufficient examples and exercises .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Overall quality of instructor(s)</b> .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Instructor(s) preparedness .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Instructor(s) knowledge .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Instructor(s) presentation and facilitation skills .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Instructor(s) responsiveness to questions .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Instructor(s) provided opportunity for questions .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Response Definition: 1=Too short 2=Somewhat too short 3=Just Right 4=Somewhat too long 5=Too long

Length of course .....

Comments and suggestions (text written outside of the boundaries will not be read by the scanning software):

**Comments and suggestions**

Please keep text within the boundaries of the blue area. Text written outside this area will not be captured.

**FRONT**

Name: (optional) \_\_\_\_\_

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Thank you for taking the time to give us your input. Your feedback is important to us!

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Training Evaluation

DAENERGYMKTWEM101

02112001

TURNER DAVE

ISO NEW ENGLAND TRAINING ROOM

EMPLOYEE

**Bar Code Fields**

Please DO NOT alter any of the fields shaded in purple. These fields are necessary to read the evaluation data.

**Length of Course**

Note the change in scale properties. For example, 1= Too short, 2 = Somewhat too short, etc.

**BACK**

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Thank you for taking the time to give us your input. Your feedback is important to us!

# Introductions

- Name
- Company
- Responsibility
- How long have you been in your job and the electric industry?
- What do you want to get out of this course?

# Overview of ISO New England

Peter Brunette  
Instructional Designer/Training Coordinator  
Market Training Department

# Module Objectives

- At the completion of this module, you will be able to:
  - ✓ List the three responsibilities of ISO New England.



# Topics Covered in this Module



Afternoon Session: Overview of New England Markets

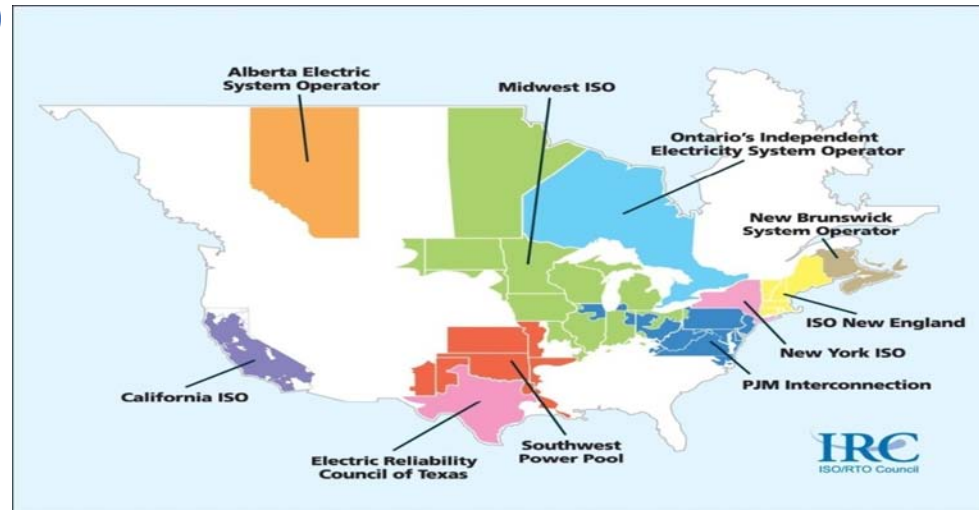
# About ISO New England



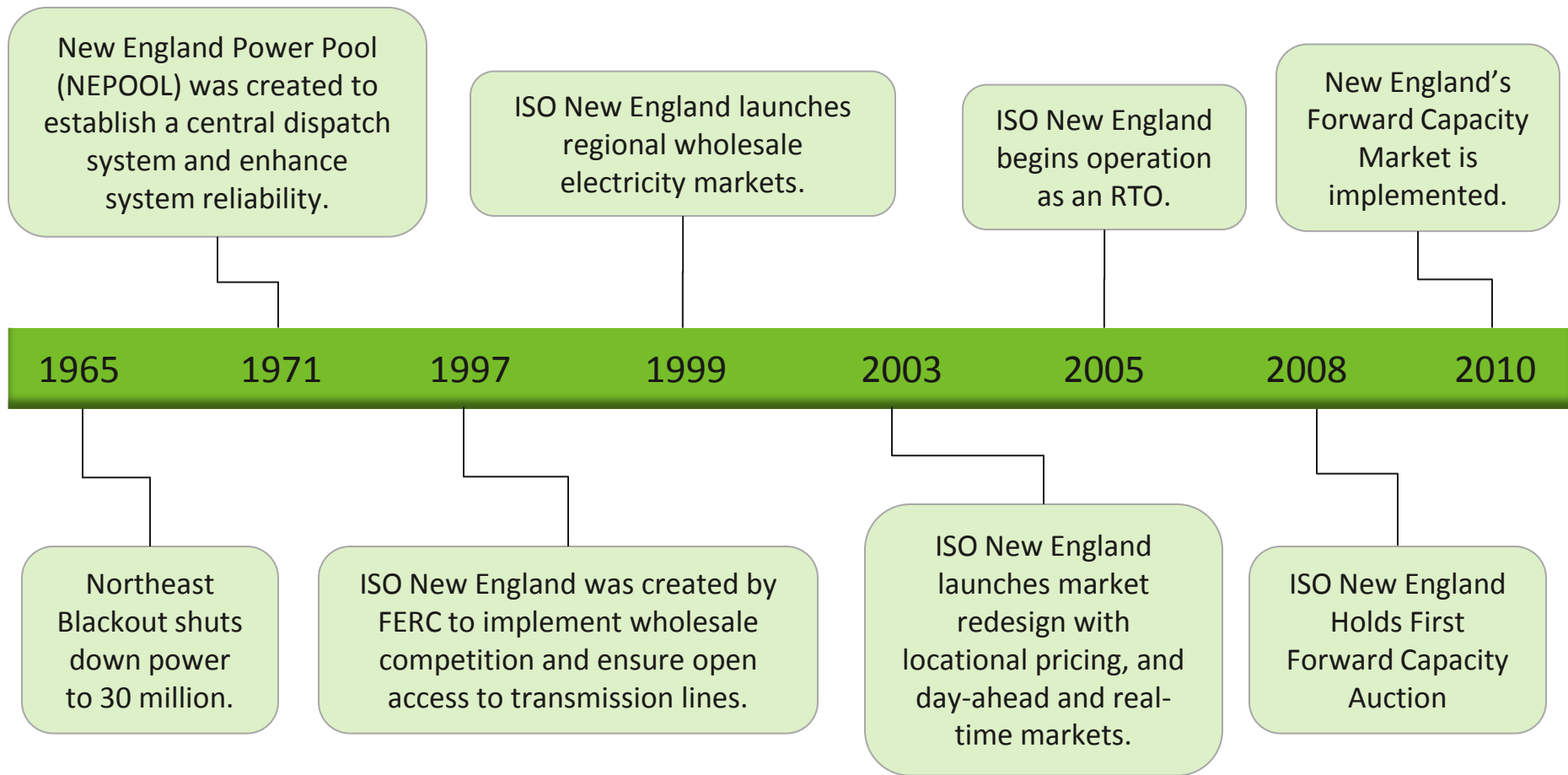
- Private, not-for-profit corporation created in 1997 to oversee New England's restructured electric power system
  - Independent of companies doing business in the marketplace
- 500 employees headquartered in Western Massachusetts
  - Largely power system engineers, economists, and computer scientists

# ISOs and RTOs in North America

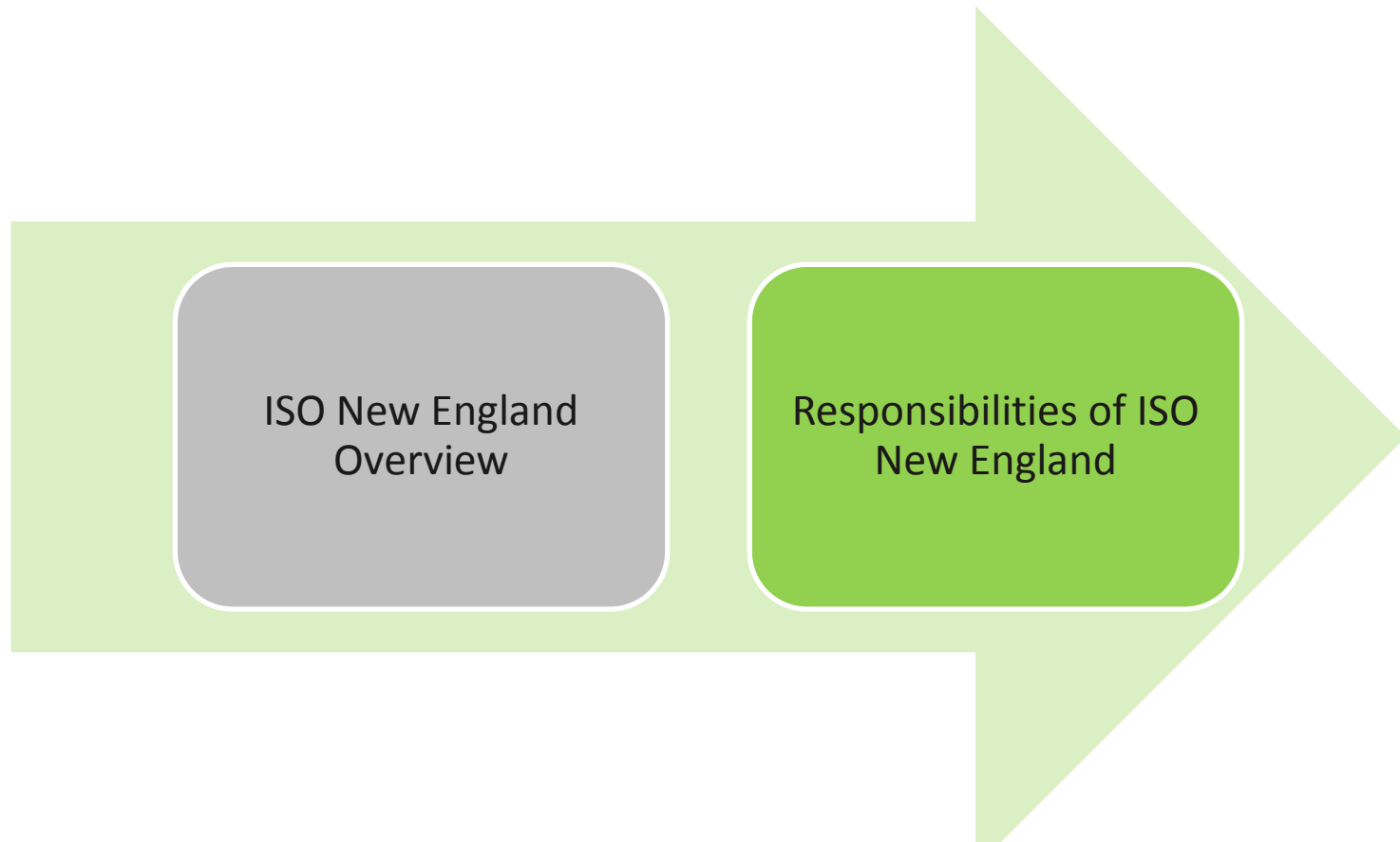
- ISO is an acronym for Independent System Operator (ISO); another name is Regional Transmission Organization (RTO)
- Ten ISO/RTOs, created by the Federal Energy Regulatory Commission (FERC), exist in North America
- ISO New England covers the six northeastern states of Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont



# ISO New England Origins



# Topics Covered in this Module



Afternoon Session: Overview of New England Markets

# ISO New England's Role

## *Three Primary Responsibilities*

### Operating the Power System

- Balance electricity supply and demand every minute of the day by centrally dispatching the generation and flow of electricity across the region's transmission lines

### Oversee Wholesale Electricity Markets

- Develop and administer the region's marketplace through which wholesale electricity is bought and sold

### Power System Planning

- Ensure the development of a reliable and efficient power system to meet current and future electricity needs

# Topics Covered in this Module





**Contact:** Customer Support at (413) 540-4220,  
Fax: (413) 535-4156, or E-mail: [custserv@iso-ne.com](mailto:custserv@iso-ne.com)

