2010 ISO/RTO Metrics Report

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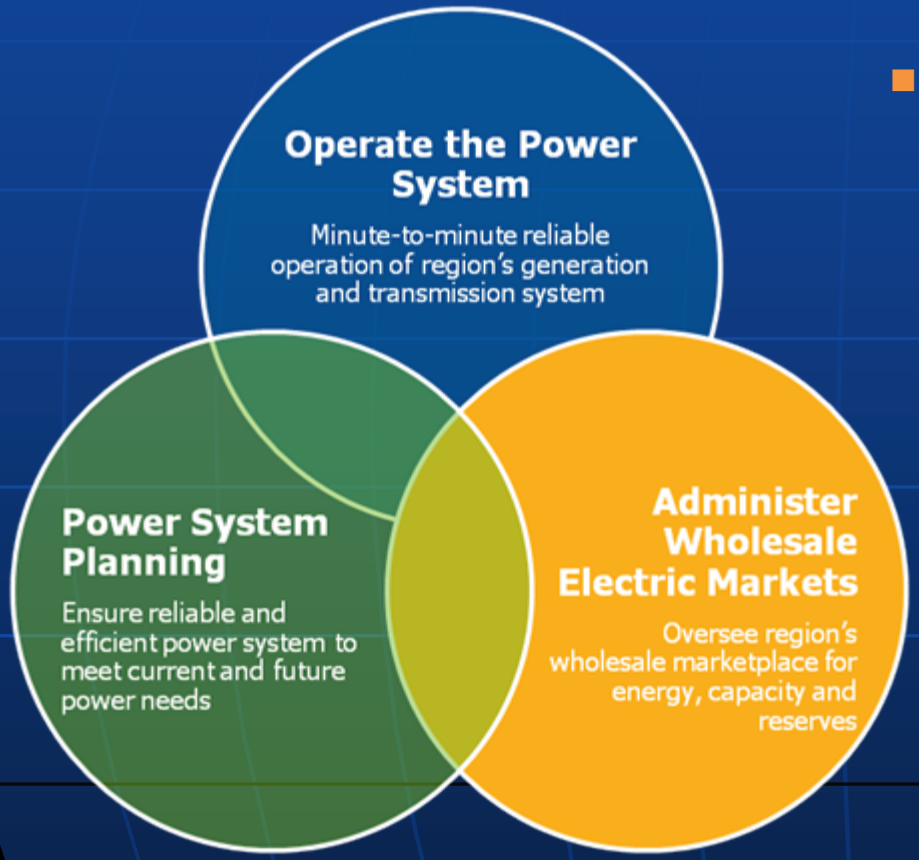
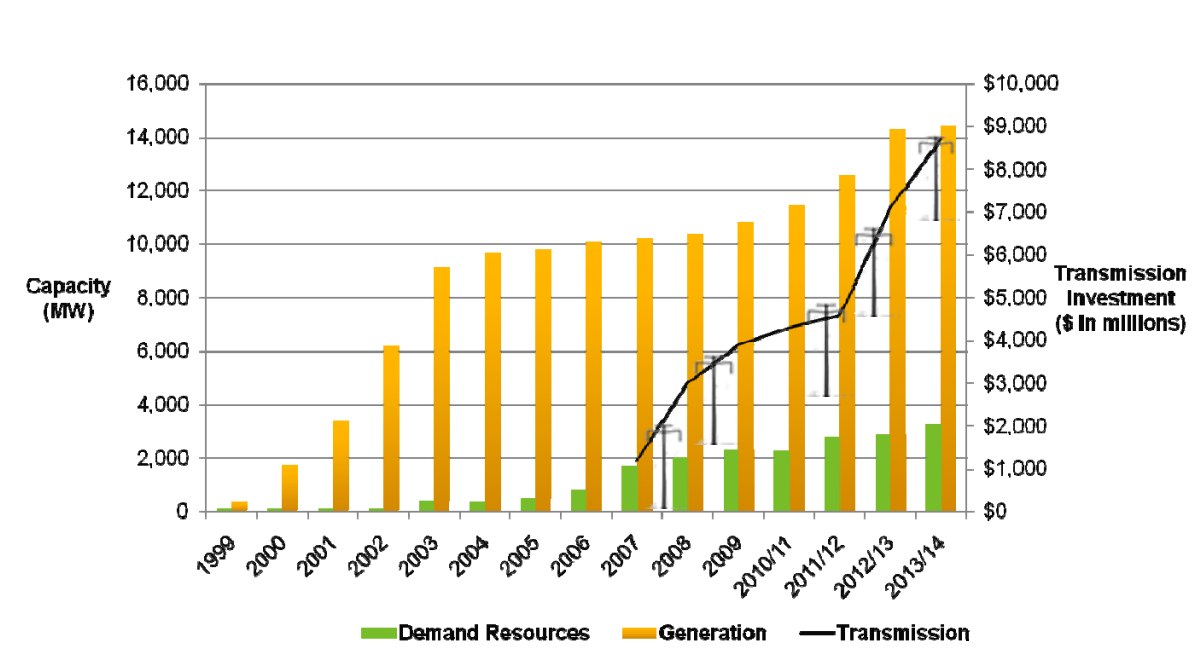
ISO New England



- ISO New England at a glance:
  - Population 14 million; 6.5 million meters
  - All-time peak demand of 28,130 MW
  - > 31,000 megawatts (MW) total capacity
  - > 350 generators
  - > 2,500 MW of demand resources
  - > 5,000 demand assets
  - > 8,000 miles high-voltage lines
  - 13 interconnections
    - (9) New York; (4) Canada

ISO Functions and Performance Benefit Region

Cumulative MW Developed and Invested Transmission, Generation & Demand Resources



- Competitive markets stimulate investment in transmission, generation, and demand resources
  - New generation and demand resources (DR) represent 55% of region's 2013/14 capacity requirements
- Planning & regional cost allocation helps build transmission which reduces congestion and allows for economic dispatch

System Investment Reduces Wholesale Costs & Air Emissions

- Congestion improvements
  - New transmission has improved system efficiency and reduced congestion
  - "Out-of-market" operating charges have dropped
    - From an average of $200M annually from 2005 to 2008 to $55M in 2009
- Average nominal and fuel-adjusted wholesale energy price down from 2005
  - Fuel costs are main driver of wholesale energy prices
  - Other factors include:
    - Economic dispatch
    - Investment in efficient generation
    - Investment in transmission
- Significant reductions in SO_2, NO_x and CO_2

Improved Resource Performance – Issues Remain

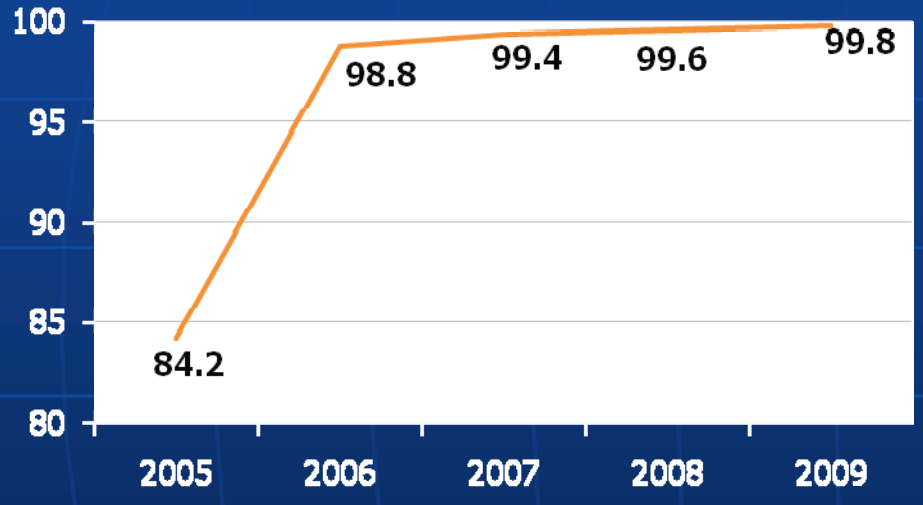
- Generator availability improves from 95% (2005) to over 96% (2009)
- Capacity adequate today – vulnerable to potential retirements
  - Natural gas capacity has grown and displaced oil
    - Oil represents nearly 25% of capacity but < 1% of energy; retirements pose challenge
- DR growth – represents > 5% of 2009 capacity & > 10% of 2013 capacity
  - Successful DR Integration Project provides operators with real-time SCADA control and reliability assessment of DR
  - June 2011 – 19 DR zones will allow granular dispatch
- Challenge – inconsistency of resource performance during Summer 2010
  - Automated integration into real-time economic dispatch needed to reliably and efficiently operate large and growing base of DR
  - Continue to enhance wholesale market design and resource audit procedures

Role of Renewables Increasing

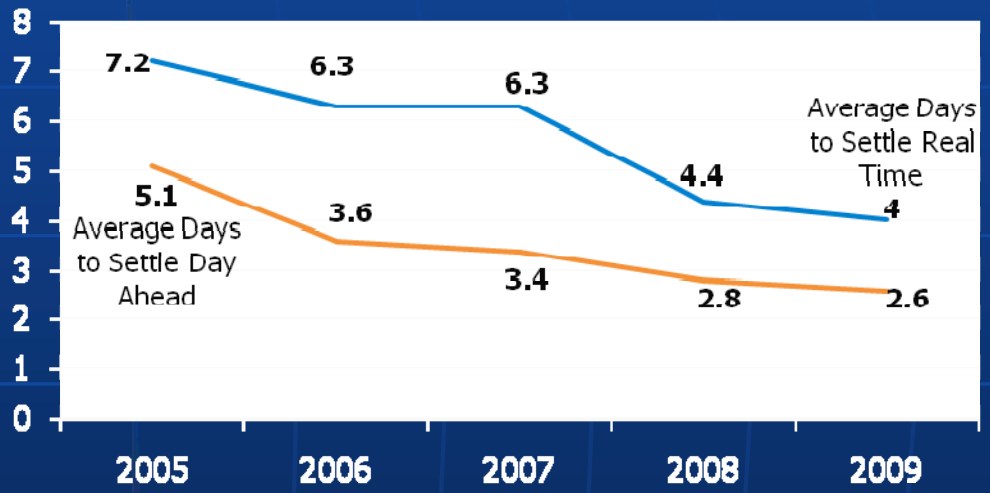
- Renewables provide consistent amounts of energy
  - From 2005 to 2009:
    - Production strong from hydro resources (7% of total energy produced)
    - Approximately 3% of summer capacity and between 5 to 6% of total energy from landfill gas, biomass gas, refuse, wind, solar, and others
- Wind capacity minimal today; +3 GW in interconnection queue
- New England Governors Study shows wind resources remote from transmission and significant transmission needed
  - New England Wind Integration Study reveals operational challenges

Billing Controls Improve Accuracy & Timing – Limit Risk & Costs

% of Hours that Had No Corrections at Any Node or Zone



Average Days Needed to Settle Energy Market Transactions



- Rigorous process for ensuring timeliness and accuracy
- Reduced settlement cycle reduces market risk and costs
- Moving toward twice-weekly billing

Looking Forward in New England

- Moving forward, ISO New England will, in conjunction with its stakeholders:
  - Implement automated integration of DR into real-time dispatch
  - Address market rules/incentives for resource flexibility
  - Address potential retirement of oil-fired generation
  - Implement New England Wind Integration Study recommendations
  - Support NESCOE Request for Information for renewable procurement
  - Continue to improve already strong customer service and billing procedures
  - Address the issue of optimizing interchange flows with NYISO
  - Continue to plan & implement transmission projects identified in RSP