



The Changing Landscape of Electricity & Energy Markets for New England & Eastern Canada

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Who is ISO New England?



- INDEPENDENT System Operator based in Holyoke, MA
- Private, not-for-profit corporation created according to FERC principles on July 1, 1997
- Responsible for system reliability, administration and oversight of wholesale electricity markets, regional transmission tariff, and regional planning
- 350 employees

Independent System Operator

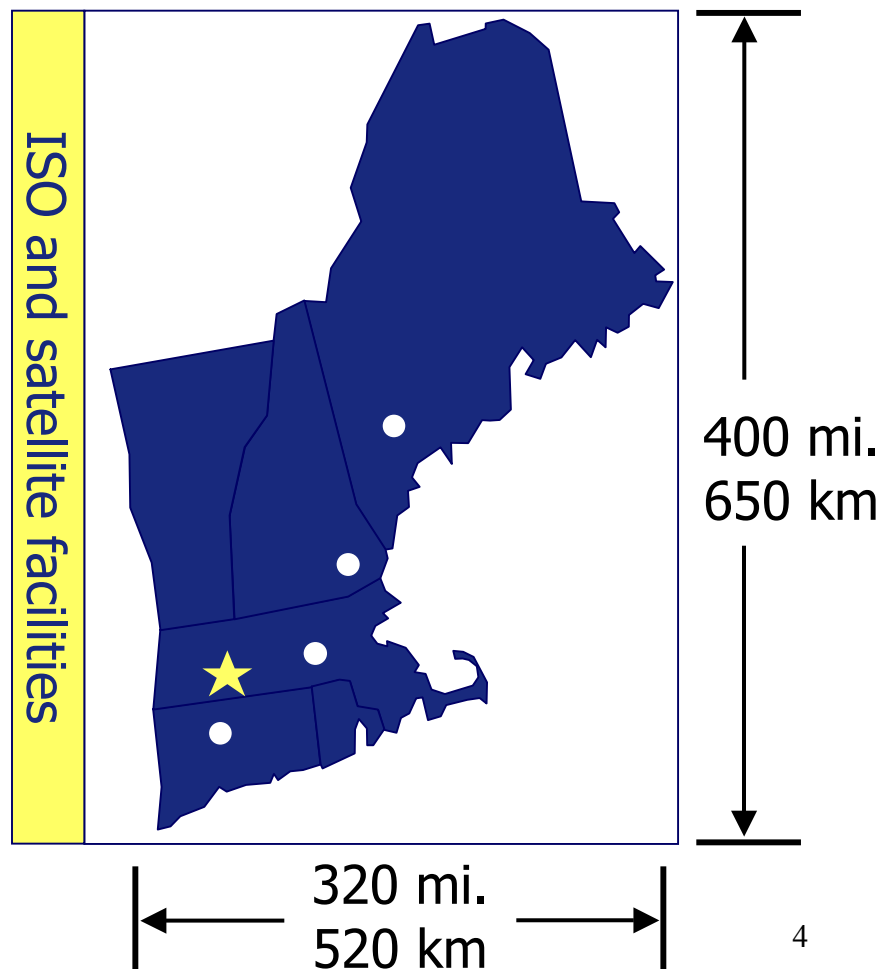


- July 1, 1997: ISO-NE replaced NEPEX
 - NEPEX (New England Power Exchange) operating agent for NEPOOL
 - NEPOOL was a tight power pool by FERC's definition
 - Continues single system dispatch of NEPOOL Control Area
- ISO-NE is a market administrator
 - Can provide emergency assistance to other control areas
- ISO-NE not an energy market participant
 - No longer able to perform economy transactions

New England's Electric Power System



- 14 million people
- 350+ generators
- 8,000+ miles of transmission lines
- 4 satellite control centers
- Interconnections to 3 neighboring systems
- 30,000 MW of installed generating capacity
- Peak load: 25,348 MW on August 14, 2002



Building Blocks: The New England Wholesale Market Story



- Foundation of healthy markets
 - Foundation built by NEPOOL beginning 1971
 - Single, region-wide reliability and economic dispatch since 1971
 - Open-Access Transmission Tariff in place: 1997
- Regional regulatory infrastructure
 - 5 out of 6 states with restructured retail markets
 - Highest level of divestiture in U.S.
 - Highly diverse marketplace with many competing interests
- Wholesale market opened: May 1999
- SMD market opened: March 1, 2003

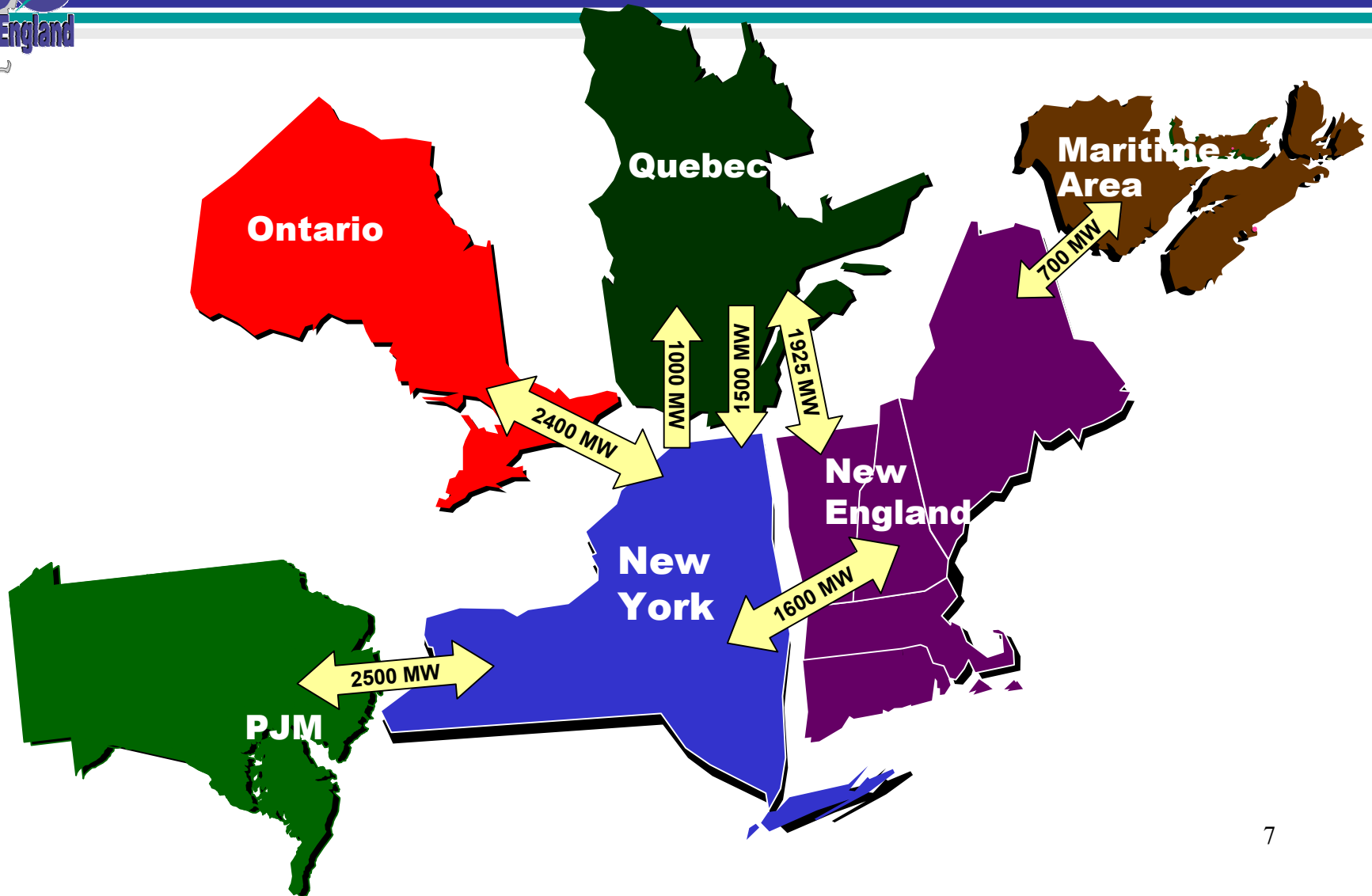


Energy Transactions with Canada



- New England and Eastern Canada have been energy trading partners for many years
 - July 31, 1969 – Interconnection Agreement between MEPCO and New Brunswick Electric Power Commission
 - Sharing of Reserves in Emergencies
 - Economy Energy Transactions
 - Emergency Energy Transactions
 - HQ Phase I & II
 - Phase I contract executed March 21, 1983
 - Phase II contract executed October 14, 1985
 - Phase I (October 1986) - 690 MW DC interconnection
 - Phase II (November 1990) – 2,000 MW DC Interconnection

Northeast Control Area Interconnections



Cooperative Endeavors



- MOU (Memorandum of Understanding)
 - IMO, ISO-NE, NYISO, and PJM
 - August 9, 1999
- NERTO (Northeast RTO)
 - ISO-NE and NYISO agree to investigate common electricity market place
 - January 29, 2002
- Market Development Agreement
 - IMO, ISO-NE and NYISO
 - July 17, 2002



- Formed August 9, 1999
- IMO, ISO-NE, NYISO, PJM
 - “...formal agreement to explore ways in which the ISOs can work together cooperatively to resolve present and future interregional issues”
 - Enhance regional reliability through coordination of operations and planning
 - Facilitate broader competitive markets
 - Engage in forums for market participants to promulgate concepts to improve market interfaces
 - Improve flow of information to market participants and the public

Lessons Learned



- Pave the way for resolution of seams issues
- Need better structure to shepherd seams issues from the joint stakeholder process into market rule changes
 - Each ISO has different priorities established by themselves and their market participants
 - Need to deal with different governance structures
 - Best practices
- Stakeholders bring their financial interests into play
- ISOs don't have a financial interest
- ISOs want to improve markets for all participants



- ISO-NE and NYISO agree to jointly evaluate feasibility of creating NERTO (Jan. 29, 2002)
- Common electricity marketplace to enhance
 - Reliability
 - Benefit markets in both regions
- Provides a roadmap for planning common wholesale power markets
- NERTO FERC filing withdrawn during summer 2003

Virtual Regional Dispatch



- ISOs to schedule physical interfaces to minimize region's production cost (Maximize dispatch efficiency)
- Remove Market Seam - Move Region's dispatch toward single system dispatch efficiency
- Why VRD?
 - Historical Data shows Market Participants are not efficiently arbitraging price separation between Control Areas
 - Counter intuitive flow (Net interchange from high cost area to low cost area) are not uncommon

Northeastern Independent Market Operators Coordinating Committee



- IMO, ISO-NE and NYISO
- Formed July 17, 2002
- Seams issues
 - Coordinate transactions procedures
 - Calculating, coordinating and publishing transfer capabilities
 - Operating reserve sharing arrangements
 - Maintenance coordination
 - Planning coordination
 - Congestion management
 - Enhancements to existing market features
- Investigate single or compatible Day-Ahead Market
 - Allow for market participants to engage in seamless transactions

Agreement Enhancing Coordination



- ISO-NE, NYISO and Energie NB Power entered into an “Agreement on Enhancing Coordination of System Operation, Planning And Market Development” (2002)
- States general principles reflecting the joint goals of the ISO and Energie NB Power
 - Increased integration of services and the compatibility of market designs
 - Provides for formation of liaison committee
 - Will meet regularly to advance objectives of the agreement

Summary



- Many initiatives over the years between NE and Canada
- Works best when it is non-market participants interacting
 - Stakeholder process has its place
 - Different governance processes must be taken into account
- ISOs are concerned with market functionality (no financial interest)