

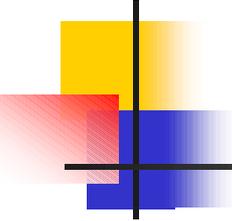
NEPOOL GIS

ISO-NE Perspective

Ronald Coutu

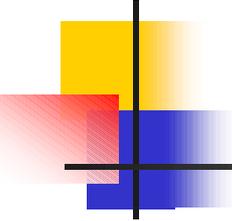
Principal Solutions Architect

ISO New England



NEPOOL GIS

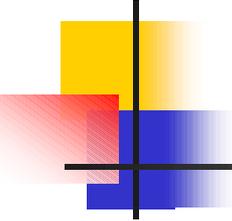
- Design Goals
- Design Steps
- Certificate System
- Implementation
- ISO-NE Roles
- Results



NEPOOL GIS

Design Goals

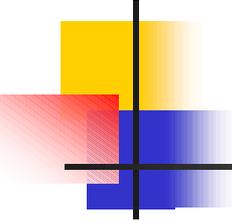
- Reporting for:
 - Labeling/Disclosure
 - RPS
 - EPS
 - Others
- Accounting for each Mwh
- Allow for trading



NEPOOL GIS

Design Steps

- Initial Efforts focused on Tracking
 - Tied to Energy Market Transactions
 - Attempted to make Energy and Attributes bundled
- Most transactions in NEPOOL are System Transactions (not tied to specific resource)
 - Made tracking and meeting RPS/EPS very clumsy



NEPOOL GIS

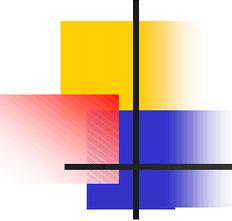
Certificate System

- In early 2000 a group made up of Regulators, Stakeholders and the ISO began design of a Certificate based system.
- Separates the environmental attributes of electric power from the energy commodity
- Results in two commodities:
 - Energy (MWh)
 - Certificates (environmental attributes)
 - Certificate - an unbundled tradable commodity that contains fuel source, emission characteristics, etc.

NEPOOL GIS

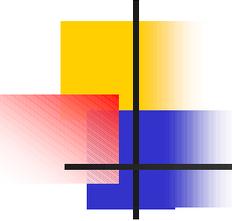
Certificate System Objectives

- System that offers flexibility in supporting public policy initiatives
 - Accounting for all Mwh (Load & Gen)
 - Allows trading of Attributes
 - Flexibility to meet different requirements in each state



NEPOOL GIS Implementation

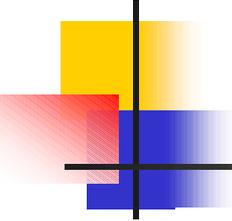
- Nepool Participants Committee (NPC) approved design 2000
- RFP for Administrator 2001
 - APX chosen from bidding process
- NPC approved GIS rules 2002
- GIS passed Factory Acceptance test 4/2002
- GIS system "go-live" 7/2002
 - Certificates created for all of 2002



NEPOOL GIS

ISO-NE Roles

- Provided Project Management
- Provide Data to system
 - Continually provide Generation, Load and Imports/Exports (Mwh) to Administrator
- Acted as technical advisors
- Involved in Factory Acceptance Test



NEPOOL GIS

Results

- System Has been very successful
 - Meeting all desired goals
 - Tracking
 - Trading (vibrant market)
 - Software continually improving to meet the needs of the user community
 - Will easily migrate to use under NEPOOL SMD
- Only positive market impacts
- Recent rule changes focused on Imports