

Developing a Clean Energy Grid in New York State

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Putting the Pieces Together

- Regulatory Framework
- Transmission Planning
- NYS Smart Grid Consortium

Regulatory Framework

- 45 by 15 – State of the State Initiative
 - 15% energy efficiency by 2015
 - 30% renewable energy by 2015
- Regional Greenhouse Gas Initiative
 - Auction emission credits from electric generating facilities
 - Proceeds disbursed via Operating Plan
- 80 by 50 – Executive Order 24
 - Develop plan to reduce in-state greenhouse gas emissions 80% by 2050

Regulatory Framework

- American Recovery and Reinvestment Act
 - U.S. Department of Energy (DOE)
 - \$3.4 billion for smart grid investment
 - \$617 million for smart grid demonstration
 - New York State Public Service Commission
 - Over \$1 billion worth of investor-owned utility smart grid projects filed
 - \$800 million approved
 - \$440 million worth of smart grid investment and demonstration projects awarded DOE grants

Transmission Planning

- New York State Transmission Assessment and Reliability Study (STARS)
 - **Phase I:** Identify the need for additional transfer capability to meet state-wide LOLE (with the existing transmission system)
 - **Phase II:** Identify cost effective transmission alternatives to meet the previously determined additional transfer capability – aged infrastructure and integration of renewable resources
 - **Phase III:** Perform additional sensitivity analyses and assessments

Transmission Planning

- Reliability Needs Assessment – Comprehensive Reliability Planning Process
 - Long-range reliability assessment
 - Resource adequacy and transmission security
 - 10-year planning horizon
 - Assumes various scenarios – hydro & wind assets
 - Identifies need for additional generation or transmission investment

Transmission Planning

- Eastern Interconnect Planning Collaborative (EIPC) & Eastern Interconnection States' Planning Council (EISPC)
 - Identify Eastern Energy Zones of particular interest for low- or no-carbon electricity generation
 - New Renewable/Alternative Energy Zones – modeled by EIPC
 - State-by-state potential for renewable or alternative energy (e.g., wind, solar, biomass, landfill, hydro, etc.) as well as imports from Canada

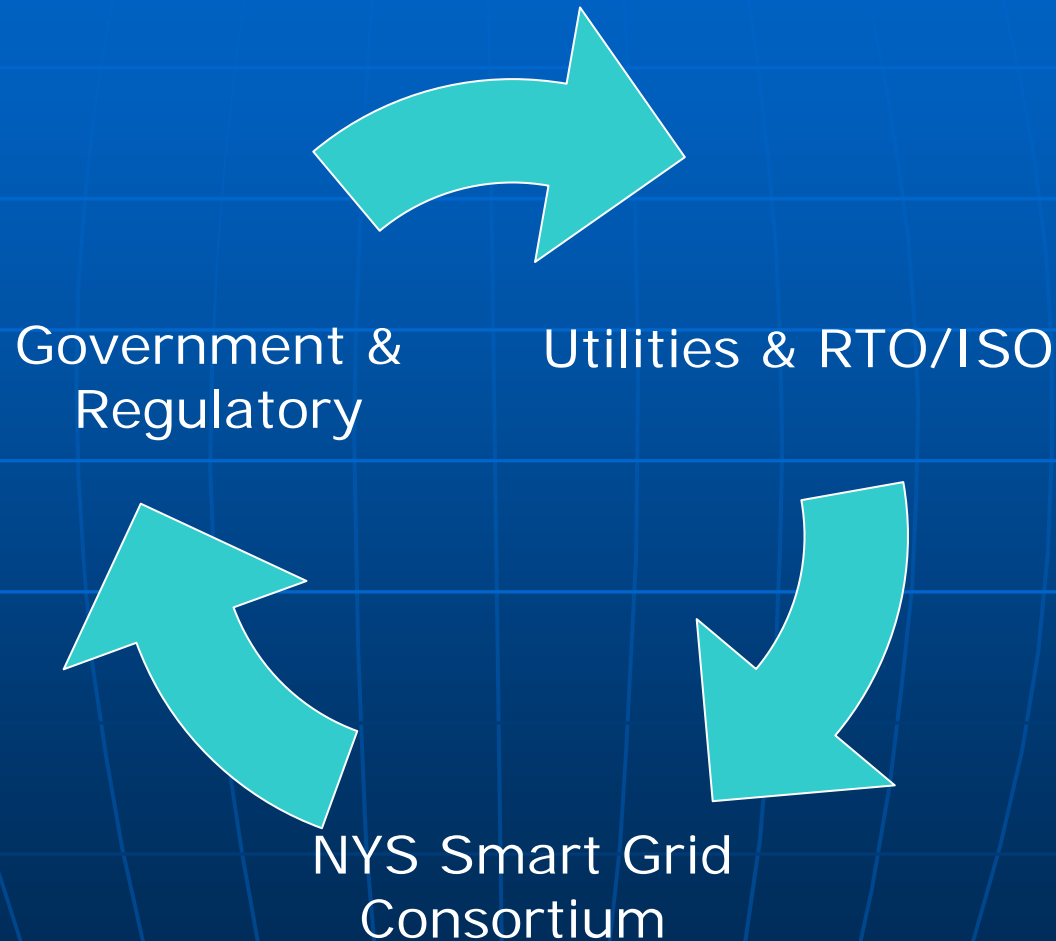
NYS Smart Grid Consortium

- Operating Principles
 1. **Customer-focused:** Effective, efficient and accessible smart grid to benefit all customers and communities
 2. **Strategically Aligned:** Dynamic and secure electricity infrastructure - sustainable execution and progression of the NYS Smart Grid strategy
 3. **Collaborative:** Industry, utility, market, academic and government institutions — open and effective development of shared institutional knowledge

NYS Smart Grid Consortium

- Operating Principles (cont'd)
 4. **Innovative:** Committed to a well-defined and managed nexus of R&D smart grid technologies and systems to accelerate the advancement of technical and institutional interoperability
 5. **Performance-driven:** Committed to a transparent validation process to ensure the progression and long-term achievement of the NYS Smart Grid to foster economic development

Putting the Pieces Together



Thank You

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