



Markets, Planning & the Future Grid

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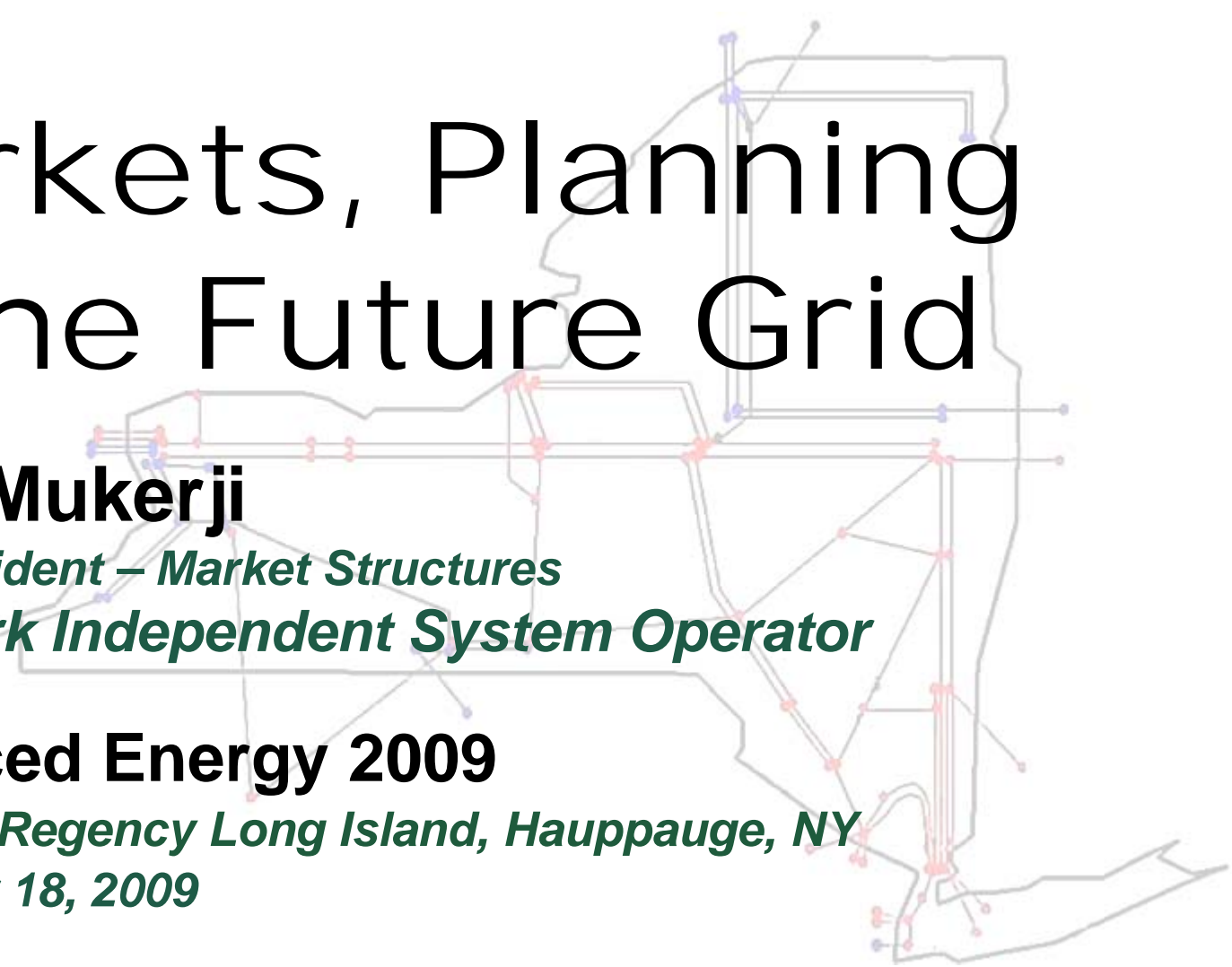
Vice President – Market Structures

New York Independent System Operator

Advanced Energy 2009

The Hyatt Regency Long Island, Hauppauge, NY

November 18, 2009

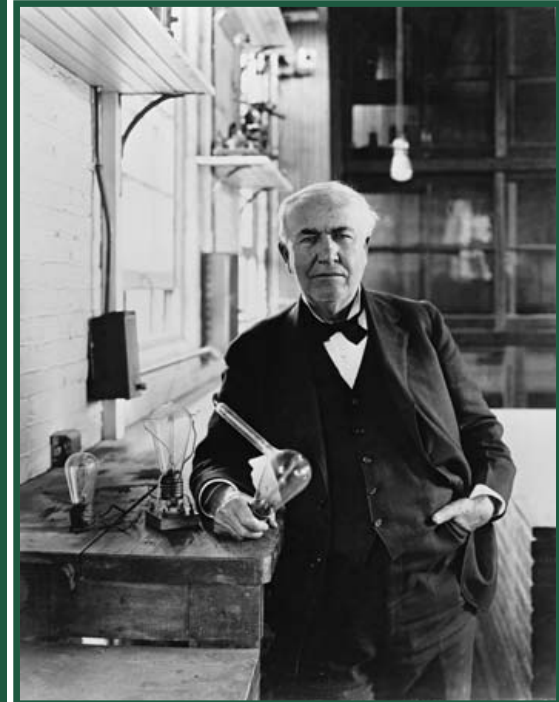


The Value of Competition

*“I can only invent under
powerful incentive.*

***No competition
means no invention.”***

Thomas A. Edison



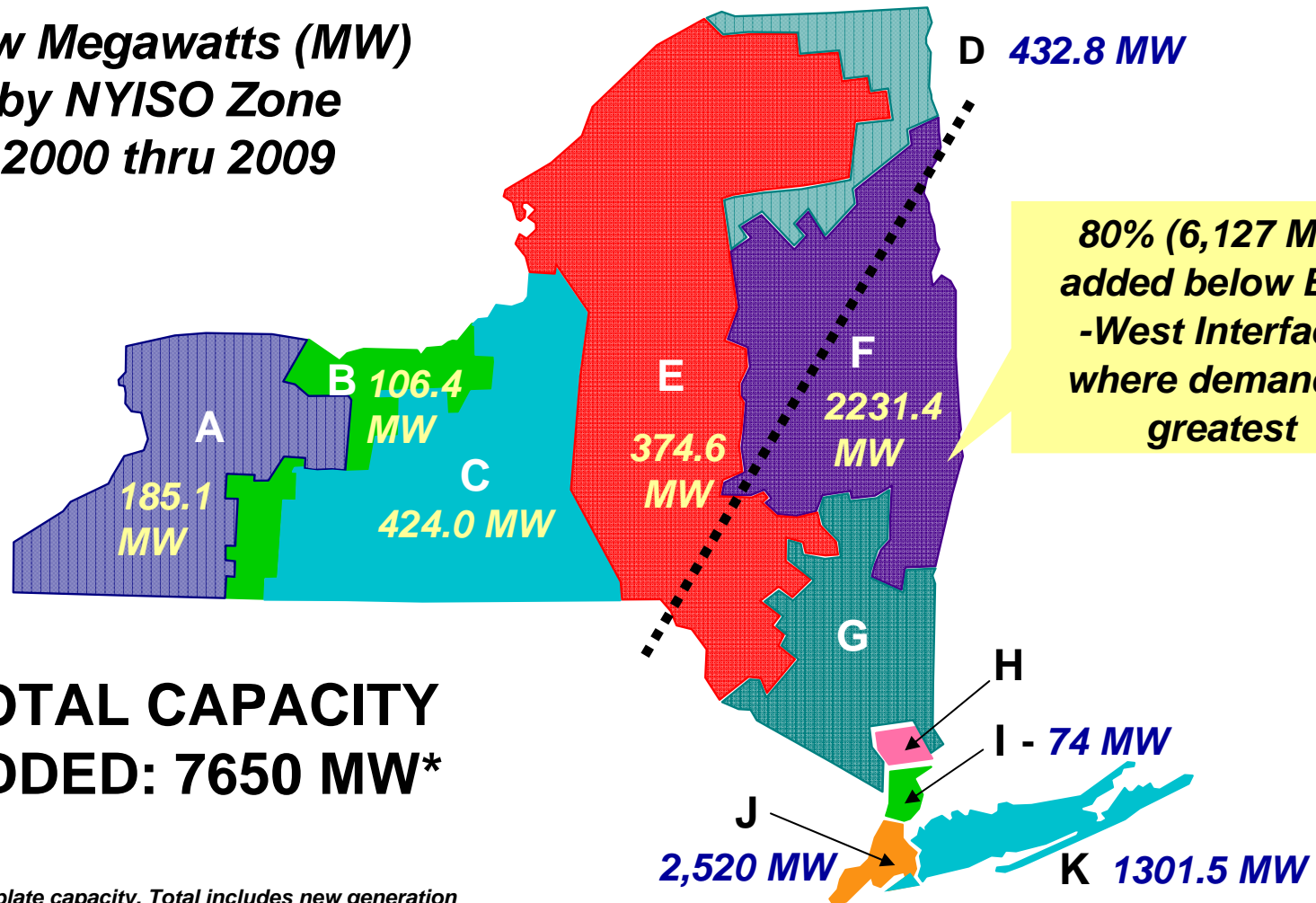
Electricity Markets at Work

- ◆ **Since the inception of New York's wholesale electricity markets in late 1999, competition has contributed to:**
 - ***Building new generation and interstate transmission***
 - ***Improving power plant efficiency and availability***
 - ***Fostering demand-side innovations***
 - ***Cultivating growth of renewable "green power" resources***



New Generation

**New Megawatts (MW)
by NYISO Zone
2000 thru 2009**



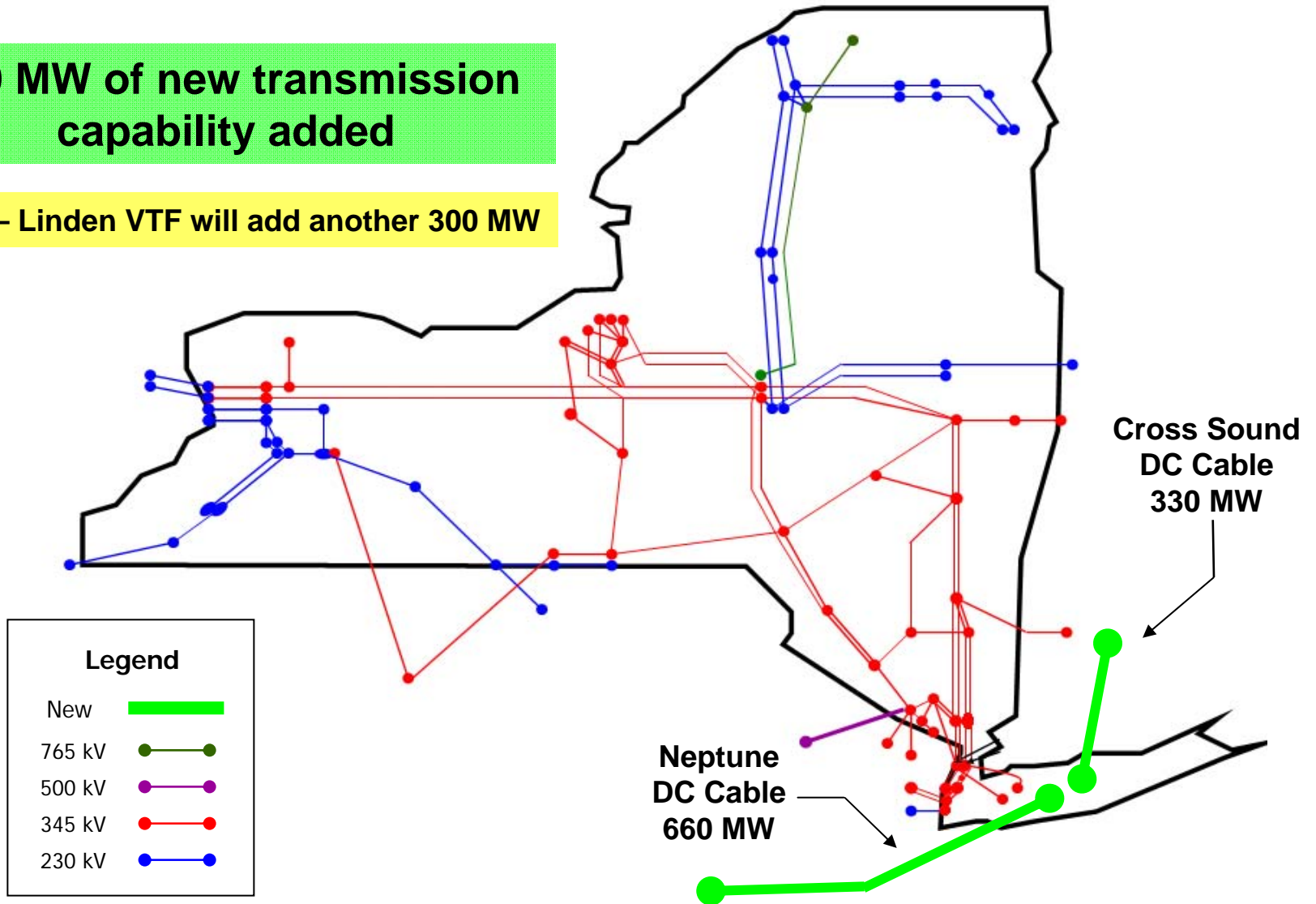
**TOTAL CAPACITY
ADDED: 7650 MW***

** Project nameplate capacity. Total includes new generation & upgrades of existing generation developed by both public power and private companies*

New Transmission

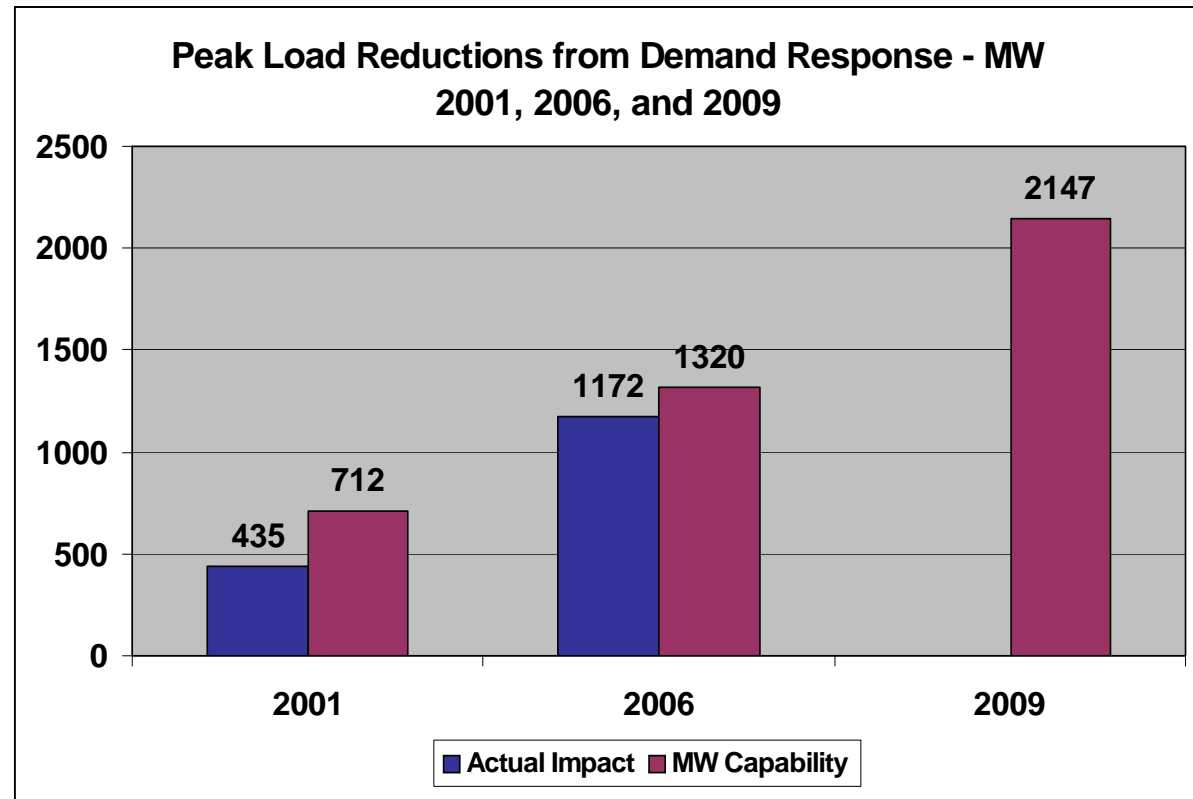
990 MW of new transmission capability added

PLUS – Linden VTF will add another 300 MW



Demand Response

Demand Response programs provide incentives for electricity customers to reduce their power use during times of peak demand

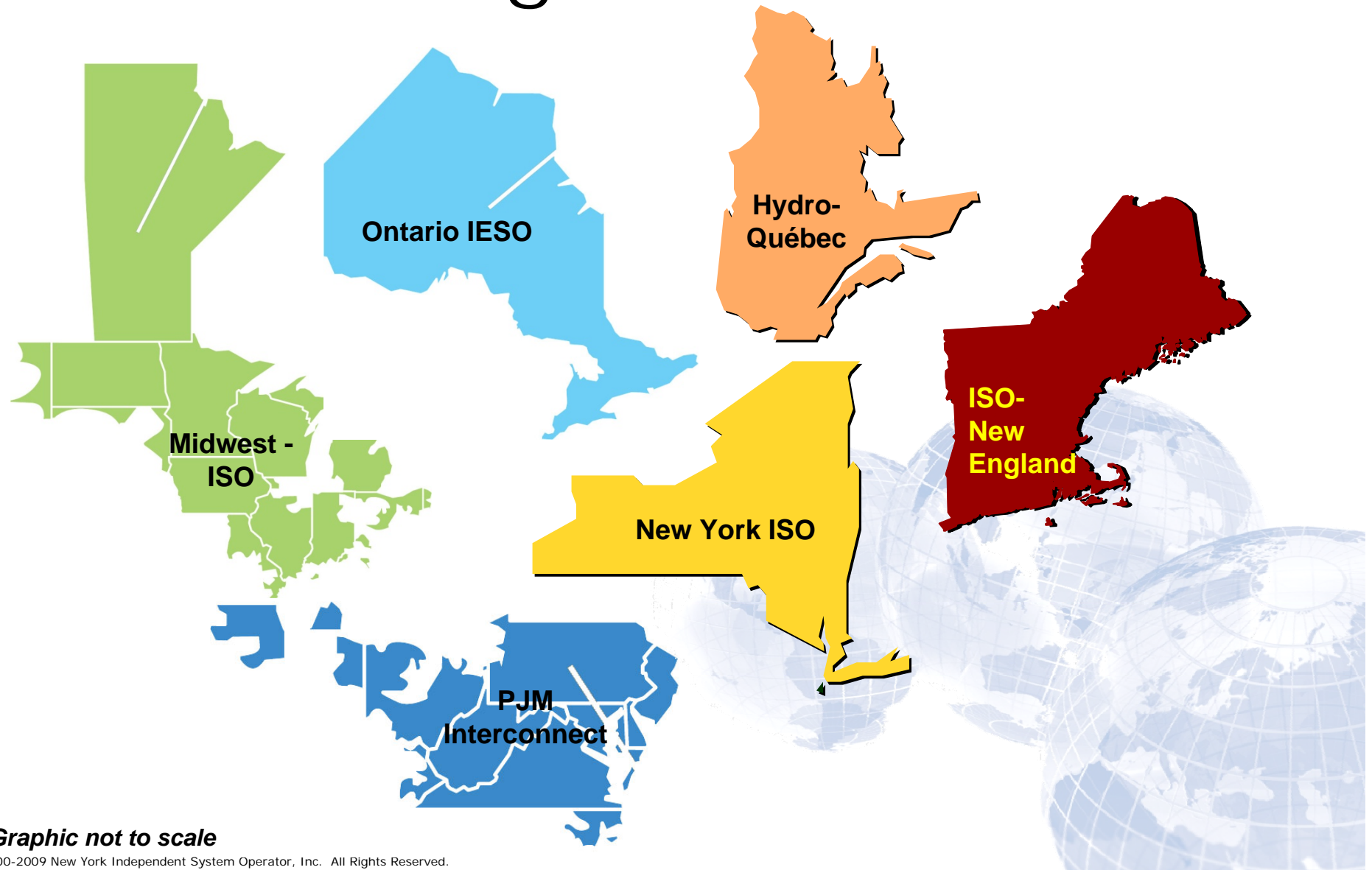


Growing Wind

- ◆ New York now has **1,275 MW** of wind generation in operation
- ◆ Nearly **8,000 MW** of proposed projects in the NYISO interconnection study queue -- including **more than 2,000 MW** of offshore wind development
- ◆ A 2004-2005 study of the impact of potential wind generation determined that **3,300 MW** could be integrated with limited changes to operating and reliability practices
- NYISO is studying scenarios of **1,275 MW**, **4,250 MW**, **6,000 MW** and **8,000 MW**



Broader Regional Markets



Graphic not to scale

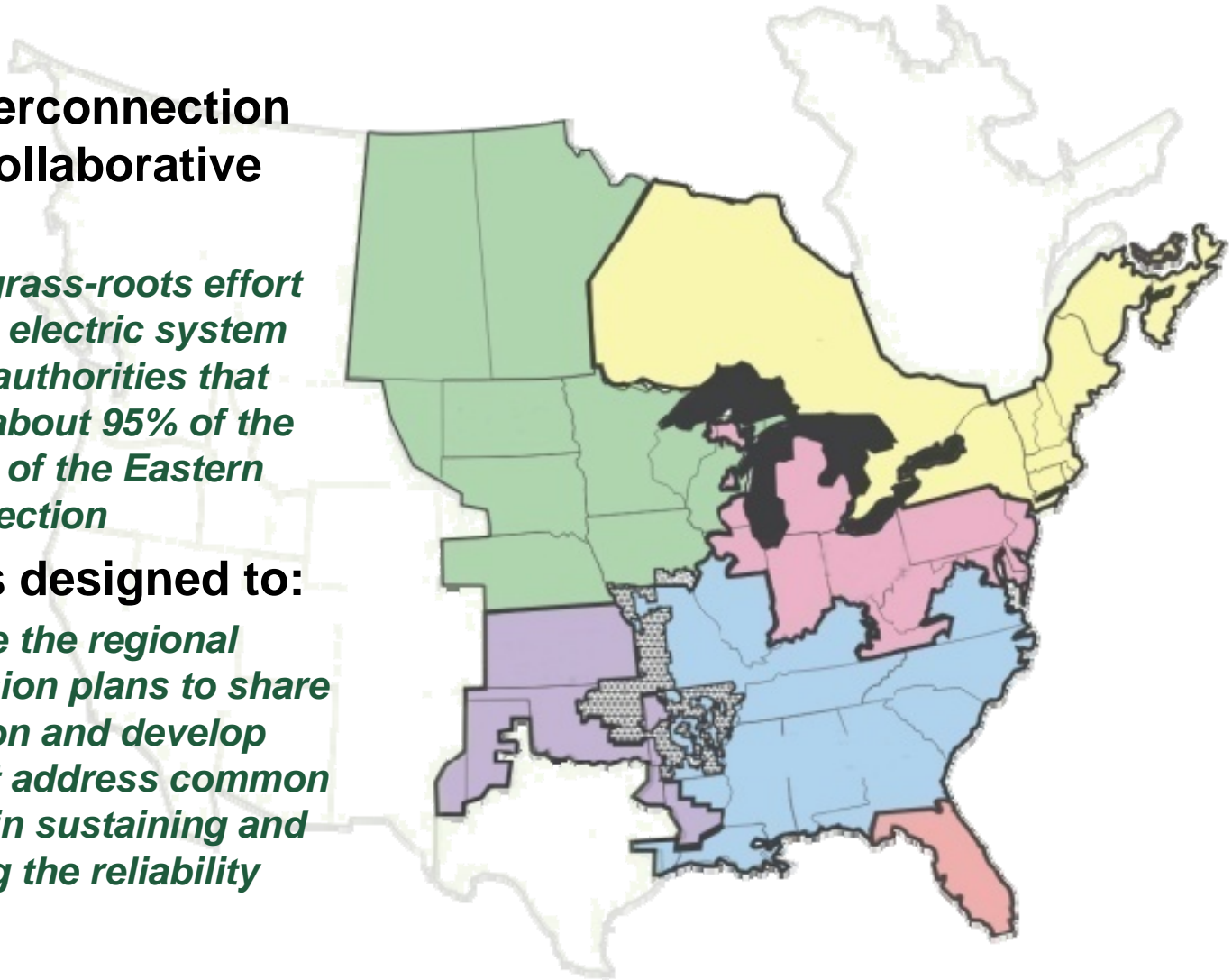
Inter-Regional Planning

- ◆ **Eastern Interconnection Planning Collaborative (EIPC)**

- *Pioneer, grass-roots effort among 23 electric system planning authorities that make up about 95% of the peak load of the Eastern Interconnection*

- ◆ **The EIPC is designed to:**

- *Aggregate the regional transmission plans to share information and develop plans that address common interests in sustaining and enhancing the reliability*

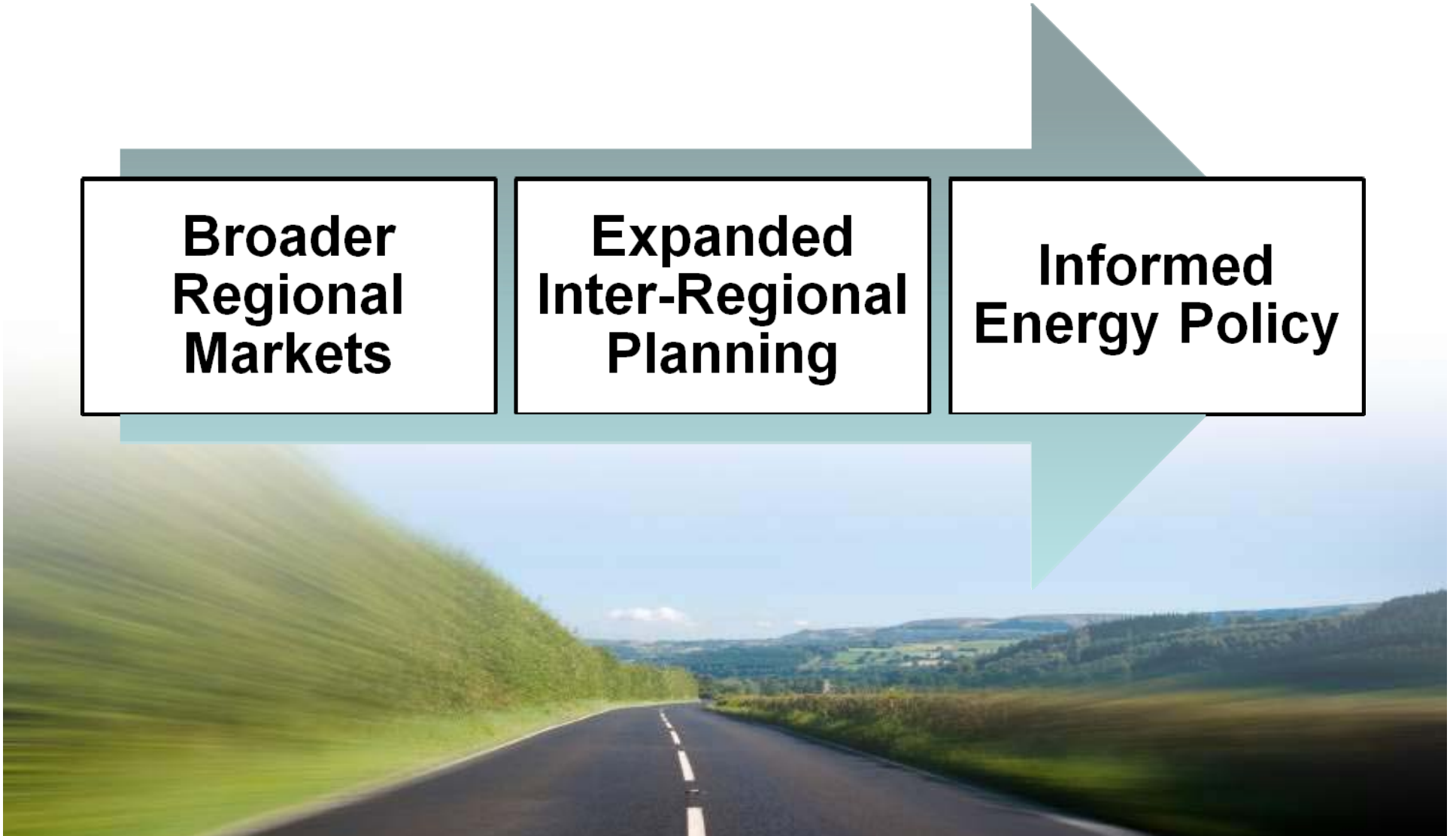


Looking Ahead

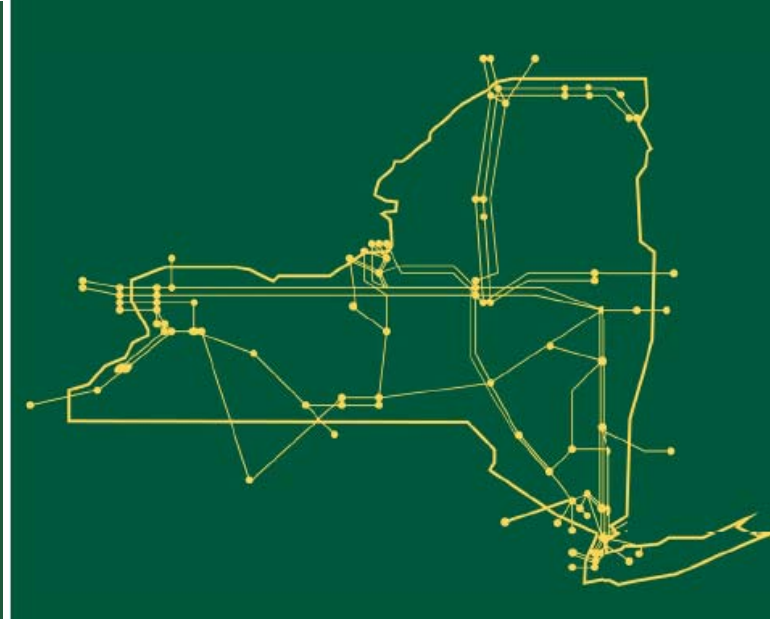
**Broader
Regional
Markets**

**Expanded
Inter-Regional
Planning**

**Informed
Energy Policy**



The New York Independent System Operator (NYISO) is a not-for-profit corporation that began operations in 1999. The NYISO operates New York's bulk electricity grid, administers the state's wholesale electricity markets, and conducts comprehensive planning for the state's bulk electricity system.



www.nyiso.com