

# CARIS Scenario Development

Peter Carney Lead Environmental Engineer New York Independent System Operator

#### ESPWG

Krey Control Center September 4, 2009



## **Tariff Language**

- 11.5 Congestion and Resource Integration Scenario Development
- The NYISO, in consultation with the ESPWG and TPAS, shall develop congestion and resource integration scenarios addressing the Study Period. Variables for consideration in the development of these congestion and resource integration scenarios include but are not limited to: load forecast uncertainty, fuel price uncertainty, new resources, retirements, emission data, the cost of allowances and potential requirements imposed by proposed environmental and energy efficiency mandates, as well as overall NYISO resource requirements. The NYISO shall report the results of these scenario analyses in the CARIS.



### **Potential Scenarios**

		Possible Scenarios						
	Low	High	Poor	New HQ NY	NO 500 KV	Extended Loss	JCSP	
Scenarios Variables	Emissions	Growth	Economy	Import and Transmissi on Line	Expansion in PJM	of Major Transmission Facility		
Load Forecast Uncertainty	Low Load	High Load	Low Load	Base	Base	Base	Base	
Fuel Price Uncertainty	Low Fuel Prices	High Fuel Prices	Low Fuel Prices	Base	Base	Base	Base	
New Resources	Federal RPS HR 2454, 15% Renewables 2020 with only 1% of existing rewables qualifing, High SCR growth	High SCR growth and new peakers to maintain LOLE	None	Base + X,000 new wind upstate	None	None	None in NY, Federal RPS HR 2454, 15% Renewables 2020 with only 1% of existing rewables qualifing, High SCR growth	
Retirements	Most/All Coal	None	Most/Coal and old NUG Combined Cycle	1 MW for each MW of new import	None	None	1 MW for each MW of new import	
Emissions Data & Cost of Allowances	2xNOx&SO2 prices, CO2@ \$25/ton and high escalation	2xNOx&SO2 prices, CO2@ \$25/ton and high escalation	Base	Base	Base	Base	Base	
Environmental Mandates	NOxRACT, Water Intake Restrictions, NSR in PJM	Base	Base	Base	Base	Base		
Energy Efficiency Mandates	High DR/EE Full 15x15	High DR/EE Full 15x15	Base	Base	Base	Base	Base	
Years Simulated								
NYISO Resources								



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 provides comprehensive reliability planning for state's bulk electricity system.

#### www.nyiso.com