

NYISO Electric System Planning Process

Two Phases

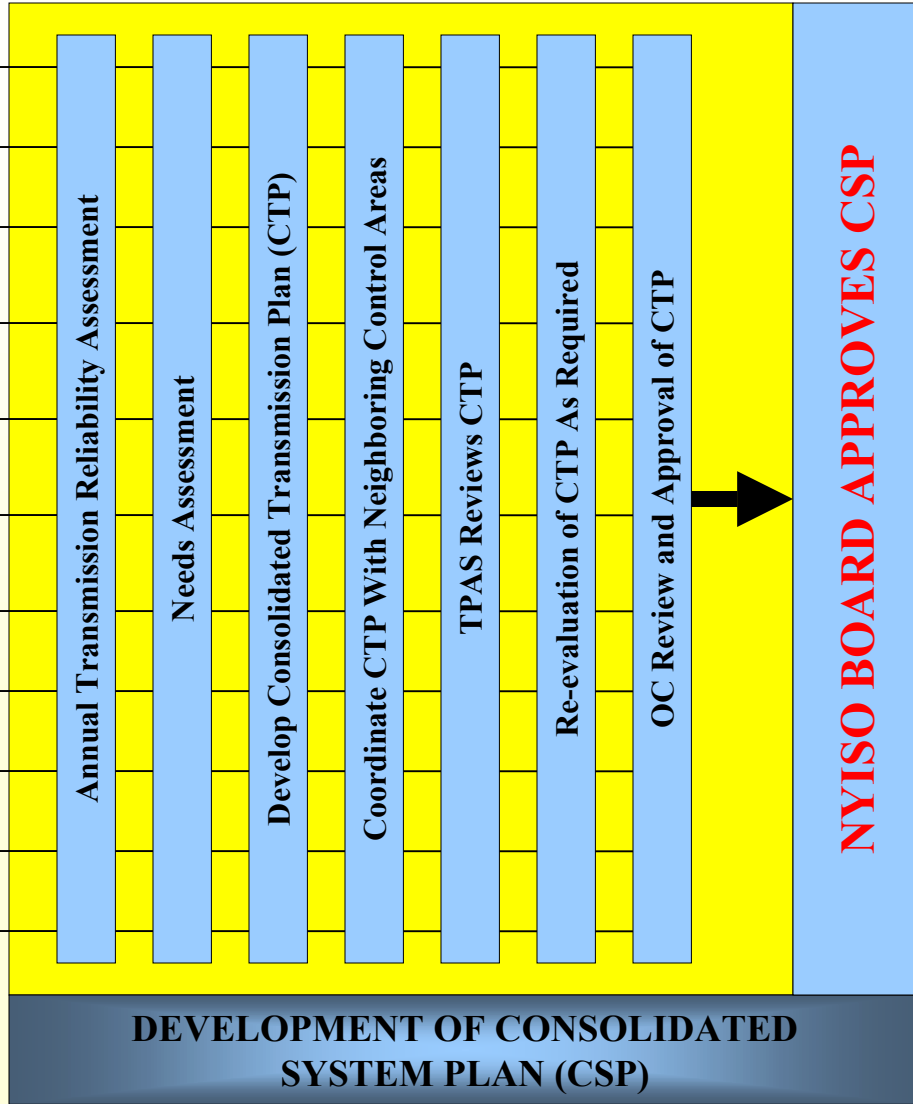
1. Development of Consolidated System Plan

- **Approved by Operating Committee**
 - ♦ Consolidate NERC, NPCC, NYSRC reliability assessments for overall view of system adequacy and security
 - ♦ 10 year horizon
 - ♦ Examination of historical economic impact of congestion

2. Comprehensive: Economic as well as reliability considerations

DRIVERS

- Reliability Standards
- Load Forecast
- Facility Retirements
- Neighbor Systems Conditions / Plans
- Transmission Owner Plans
- Interconnection Requests/ Class Projects
- System Impact Studies
- Resource Adequacy Assessments
- Transmission Adequacy Assessments
- Operational Assessments
- Congestion Assessments



NYISO Electric System Planning Process

LFTF Role

1. Review NERC, NPCC, NYISO Load & Capacity Report forecasts
2. Develop Process for 10 Year Forecast
 - ◆ **Input from all Market Participants**
 - ◆ **Solicit NYSERDA, other Agency inputs**
 - ◆ **Subject to evaluation by NYISO, similar to ICAP load forecast**
3. Develop 10 Year Forecast
 - ◆ **Based on common set of assumptions (e.g., Economy.com)**
 - ◆ **Linked with EDRP, other DSM programs**
4. End of Feb. 2004 completion date

NYISO Electric System Planning Process (1)

ESP Load Forecasting Process Strawman

1 $R' = GWH/GSP = aGSP^{(b-1)}P_e^{(b2)}$ Estimated from historical information by NYISO staff

	<u>R</u>						<u>Overall</u> Average	<u>04 - 13</u> Forecast	<u>R'</u>
	<u>Epoch 1</u>	<u>Epoch 2</u>	<u>Epoch 3</u>	<u>Epoch 4</u>	<u>Epoch 5</u>				
	TO 1	0.84	0.97	1.04	1.10	1.01			
TO 2	1.10	1.02	1.06	1.15	1.02	1.052	1.050	1.030	
TO 3	1.02	1.04	1.07	1.05	1.05	1.050	0.980	1.000	
MES 1 (in TO 1 TD)	1.12	1.13	1.09	1.11	1.06	1.096	1.100	1.110	
MES 2 (in TO 3 TD)	1.02	1.04	1.07	1.05	1.05	1.050	1.040	1.070	

Epochs correspond to more or less distinct economic periods (recession, oil embargoes, etc.)

2

	<u>Acceptance Range</u>		<u>Accept</u>	<u>Investigate</u>
	<u>Low</u>	<u>High</u>		
TO 1	0.97	1.04		x
TO 2	1.06	1.10	x	
TO 3	1.04	1.05		x
MES 1 (in TO 1 TD)	1.09	1.12	x	
MES 2 (in TO 3 TD)	1.04	1.05		x

NYISO Electric System Planning Process (2)

3 Investigate Forecasted R's not in Acceptance Range

Changing composition of GSP (structural change)
 DSM/NYSERDA Programs
 Etc.

4

<u>Final Energy Forecast</u>				
	<u>R</u>	<u>2004</u> <u>GSP</u>	<u>2005</u> <u>GSP</u>	<u>2013</u> <u>GSP</u>
TO 1	1.060		61886.8	69270.3
TO 2	1.050		54666.7	62160.0
TO 3	0.980		33469.4	33984.5
MES 1 (in TO 1 TD)	1.060		6188.7	7012.5
MES 2 (in TO 3 TD)	0.980		1673.5	1905.5
		<u>2004</u> <u>GWH</u>	<u>2005</u> <u>GWH</u>	<u>2013</u> <u>GWH</u>
TO 1		x	65,600	73,427
TO 2		x	57,400	65,268
TO 3		x	32,800	33,305
MES 1 (in TO 1 TD)		x	6,560	7,433
MES 2 (in TO 3 TD)		x	<u>1,640</u>	<u>1,867</u>
		x	164,000	181,300

5 Final Peak Forecast

TBD

NYISO Electric System Planning Process (3)

Still TBD

Converting Energy to Peak forecast

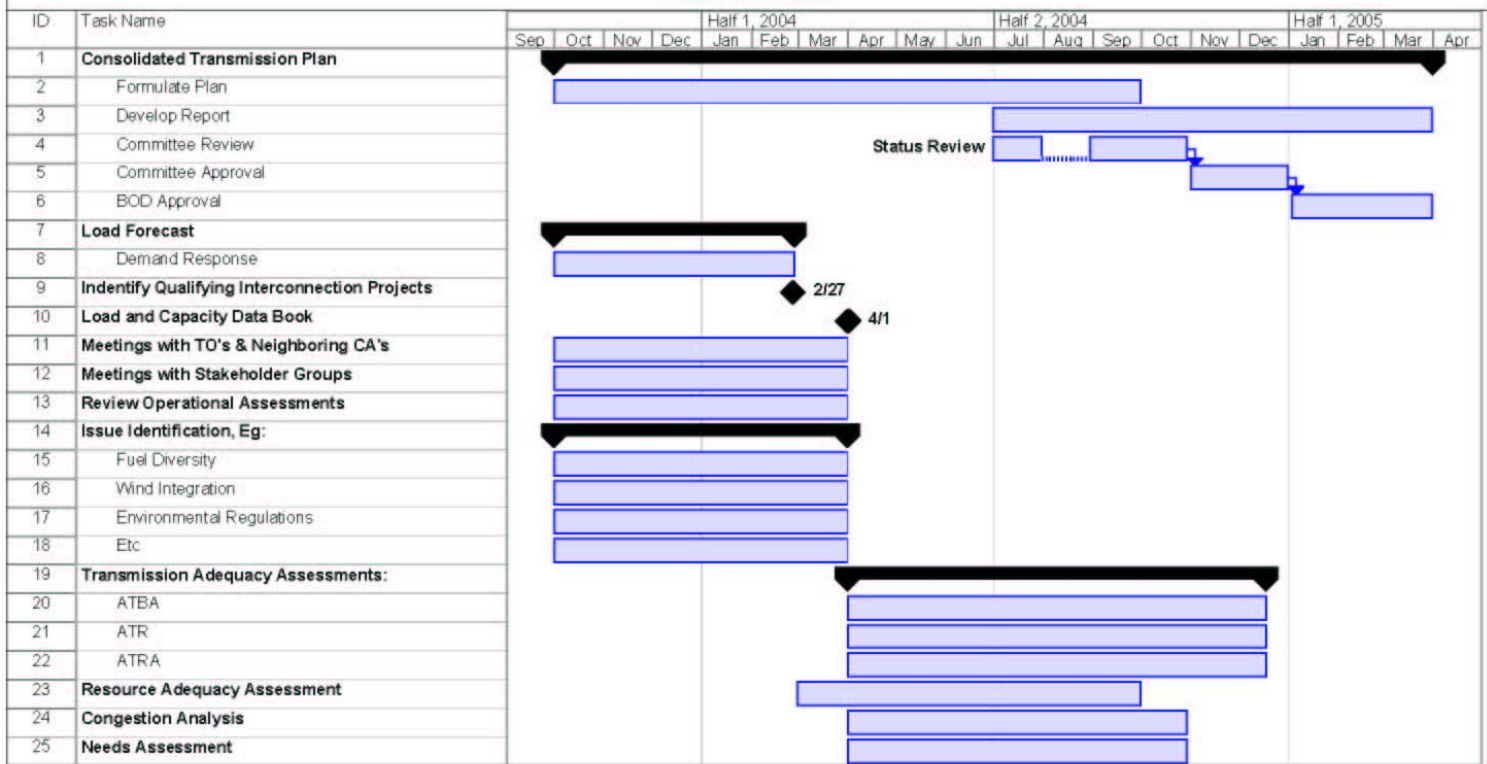
Source of Electric Price Variable(s)

DSM/EDRP

MP Inputs

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Consolidated Planning Process Proforma Timeline



Project: consol_plan_process2 Date: Wed 6/4/03	Task		Milestone		External Tasks	
	Split		Summary		External Milestone	
	Progress		Project Summary		Deadline	

