

NYISO 2009 BUDGET

Management Committee
September 25, 2008

Draft – For Discussion Only

Highlights

- 3.3% increase in Rate Schedule 1 charge/MWH (\$0.813 for 2009 vs. \$0.787 for 2008)
- NYISO's Rate Schedule 1 revenue requirement, amount of debt outstanding and number of full-time equivalent employees remain among the lowest of all ISOs/RTOs
- Major drivers of 2009 increase totaling \$5.4M are largely outside NYISO's control (*\$1.1M FERC Fees increase, \$0.8M reduction in interest income, ~\$2.0M for various Planning initiatives, and ~\$1.5M NERC CIP requirements*)
- Excluding those items (listed above), NYISO's 2009 Rate Schedule 1 charge would have been \$0.783/MWH, a reduction from 2008
- 15% increase in capital/consultancy funding for Projects (\$13.3M for 2009 vs. \$11.6M for 2008)
- To offset certain cost increases, NYISO has achieved a variety of efficiencies within approximately the past year – see details on next slide

Efficiencies Achieved

RECENT EFFICIENCIES:

- Virtualization – By 12/31/08, NYISO will have saved ~\$12.5M in avoided costs for additional servers and associated maintenance.
- Headcount Reductions – FTE positions were eliminated in Customer Settlements and other groups to reflect efficiencies gained via recent automation efforts.
- Greater Productivity – Process automation in Customer Relations, Customer Settlements, Market Monitoring, Auxiliary Market Operations, TCC Market Operations, and others will allow for better utilization of staff resources on more value-added efforts.
- IT Maintenance Savings – Aggressive vendor negotiations on hardware and software maintenance renewals with ~20 vendors has resulted in savings of ~\$2.3M.
- Price Validation – The automation of the price validation function migrates this function to internal staff as well as provides annual consultancy savings of ~\$0.8M.
- Insurance Savings – Net savings of \$0.4M are expected for 2009 due to continuous negotiations with insurance broker/carriers.
- Lean Six Sigma – Over 70 process improvement projects have been completed that have decreased errors, improved performance, reduced cycle time, etc. Examples include those related to the settlements process, price corrections, software development and deployment, customer responsiveness, planning and others. Two high profile market-facing projects improved the response time of the NYISO website and improved the timeliness of billing associated with thunderstorm alerts.
- Energy Efficiencies – NYISO hedged utility costs for the PCC and KCC facilities to limit exposure to rising electricity prices and implemented an energy efficiency project at the PCC.

Main 2009 Priorities

Compliance & System Planning:

- Achieve/maintain compliance with FERC/NERC/ERO/CIP/CEII standards
- Support new initiatives in System Planning, including NYS Energy Planning Board, implementation of economic planning, transmission upgrades and expansion solutions
- Support Smart Grid/Smart Metering solutions and develop technology assessment

Market Design Enhancements:

- Finalize design of forward capacity market and initiate development of supporting software
- Implement high-priority market enhancement features, including critical recommendations from independent market advisor's "State of the Market" report
- Expand Demand Response program and implement tools to facilitate management and participation in existing program
- Institute software and expanded rules to encourage market entry for wind and new technologies
- Implement improved market monitoring and analysis tools to better detect market anomalies (e.g. loopflow)

IT Infrastructure / Project Continuations:

- Continue process to replace the Settlements System architecture
- Continue phased implementation of a new automated credit management system
- Implement software and processes to support a shorter settlements cycle
- Continue process to replace Market Information System architecture
- Continue technology infrastructure initiatives to optimize and consolidate computer platforms allowing reduction of required footprint and associated costs (Virtualization and Oracle upgrades)
- Upgrade all Market Operations and EMS software to HP Unix and achieve significant performance gains while replacing aging and currently obsolete hardware
- Continue TCC and UCAP automation / enhancement initiatives
- Continue automation efforts for manual billing processes
- Continue to realize improved performance from Lean Six Sigma and process/control enhancements

Summary Budget



<i>(in millions, excluding RS#1/MWH charges)</i>	2004 Budget	2005 Budget	2006 Budget	2007 Budget	2008 Budget	2009 Draft
RS#1 Rev. Requirement – in \$\$	\$123.8	\$129.0	\$133.2	\$139.7	\$136.3	\$144.2
Budgeted MWH Hours	<u>161.0</u>	<u>163.7</u>	<u>166.0</u>	<u>170.1</u>	<u>173.2</u>	<u>177.3</u>
RS#1 Rev. Requirement - \$/MWH	\$0.769	\$0.788	\$0.802	\$0.821	\$0.787	\$0.813
Annual % Change in RS#1/MWH	3.4%	2.5%	1.8%	2.4%	(4.1%)	3.3%

Over this six-year period, NYISO's Rate Schedule #1 charge has increased \$0.044/MWH or 5.7%, which equates to less than a 1% annual increase.

Supplemental Information – Allocation by Market Participant Type

Total RS#1 Rev. Requirement - \$/MWH	\$0.769	\$0.788	\$0.802	\$0.821	\$0.787	\$0.813
<i>RS#1 Charge/MWH: Purchasers @ 80% (85% pre-2005)</i>	<i>\$0.654</i>	<i>\$0.630</i>	<i>\$0.642</i>	<i>\$0.657</i>	<i>\$0.630</i>	<i>\$0.650</i>
<i>RS#1 Charge/MWH: Sellers @ 20% (15% pre-2005)</i>	<i>\$0.115</i>	<i>\$0.158</i>	<i>\$0.160</i>	<i>\$0.164</i>	<i>\$0.157</i>	<i>\$0.163</i>

Detail Budget by Cost Category

<i>(\$ in millions, except RS#1/MWH)</i>	2004 <u>Budget</u>	2005 <u>Budget</u>	2006 <u>Budget</u>	2007 <u>Budget</u>	2008 <u>Budget</u>	2009 <u>Draft</u>
Capital	\$18.2	\$21.8	\$22.4	\$4.4	\$4.3	\$8.1
Salaries & Benefits	43.8	47.4	50.3	50.6	57.6	61.3
Professional Fees (including Legal)	44.4	29.3	26.6	32.2	34.7	38.1
Building Services	3.5	4.2	4.4	4.0	4.3	5.1
Computer Services	5.7	11.5	10.5	13.0	12.5	15.7
Insurance	7.7	6.8	4.6	3.7	3.6	3.2
Telecommunications	2.9	4.2	5.1	5.0	4.3	4.3
Other Expenses (BOD, Travel/Training, NPCC Fees)	5.4	5.3	6.1	5.0	4.0	4.8
Current Year Needs (excl. FERC Fees)	\$131.6	\$130.5	\$130.0	\$117.9	\$125.3	\$140.6
Debt Service	<u>30.2</u>	<u>26.5</u>	<u>31.5</u>	<u>35.4</u>	<u>27.8</u>	<u>23.0</u>
Cash Budget	\$161.8	\$157.0	\$161.5	\$153.3	\$153.1	\$163.6
Less: Miscellaneous Revenues	(1.1)	(1.9)	(2.5)	(2.3)	(3.8)	(3.1)
Less: Proceeds from Current Year Budget Debt/Carryovers	(45.4)	(20.4)	(28.0)	(20.0)	(21.7)	(23.3)
Less: Proceeds from Mortgage/Renovations Debt	-	(15.9)	(9.0)	-	-	(3.0)
Add: Interest on Current Year Budget Debt	0.5	0.5	0.8	0.5	0.4	0.5
Add: Principal & Interest on Mortgage/Renovations Debt	=	<u>2.7</u>	<u>0.4</u>	=	=	<u>0.1</u>
Net Budget Needs	\$115.8	\$122.0	\$123.2	\$131.5	\$128.0	\$134.8
FERC Fees	<u>8.0</u>	<u>7.0</u>	<u>9.9</u>	<u>8.2</u>	<u>8.3</u>	<u>9.4</u>
Rate Schedule #1 Revenue Requirement in \$\$	\$123.8	\$129.0	\$133.1	\$139.7	\$136.3	\$144.2
Budgeted MWH Hours (in millions)	161.0	163.7	166.0	170.1	173.2	177.3
Rate Schedule #1 Revenue Requirement in \$/MWH (budget)	\$0.769	\$0.788	\$0.802	\$0.821	\$0.787	\$0.813

Other ISOs Comparison

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<i>(\$ in millions)</i>					
	<u>REVENUE REQUIREMENT</u>			<u>OTHER INFORMATION</u>	
ISO/RTO	2009 Revenue Requirement	Less: 2009 FERC Fees	Comparative 2009 Rev. Req. (excludes FERC Fees)	Debt Outstanding at 12/31/09	FTEs at 12/31/09
MISO	\$271.0	-	\$271.0	\$300.0	776
PJM	\$240.0	-	\$240.0	TBD	590
CAISO	\$193.8	-	\$193.8	\$166.0	568
ERCOT	\$182.0	-	\$182.0	\$263.4	753
NYISO	\$144.2	(\$9.4)	\$134.8	\$62.1	465
ISO-NE	\$127.9	-	\$127.9	\$79.5	456

These amounts are draft, and may be subject to change as each ISO/RTO completes their 2009 approval process.

Schedule

- **September 12:** BPWG initial review of draft 2009 budget
- **September 25:** Information on draft 2009 budget provided to Management Committee for review
- **September 26:** BPWG meeting to review MC comments
- **October 20:** NYISO presents draft 2009 budget to BOD Commerce & Compensation Committee for review
- **October 22:** BPWG meeting to discuss feedback received from Management Committee & BOD
- **October 29:** Management Committee vote on final 2009 budget for recommendation to BOD
- **November 18:** BOD approval of final 2009 budget

**ATTACHMENT I –
2009 PROPOSED
PRODUCT ENHANCEMENTS**

Proposed Projects – 2009 Budget

Project Deliverable	Budget Impact	Description / Comments
Energy Market Products	\$2825K	
Comprehensive Bid Management – Phase 4	Individual project estimates to be reviewed during BPWG meeting.	Continuation of Multi-Year Project
Comprehensive Bid Management – Phase 5		Continuation of Multi-Year Project
Demand Response Program Mgmt.		Continuation of 2007 Initiative
Trading Hubs (FKA Netting of Bi-Laterals)		Continuation of 2007 Priority Enhancement
Wind Resource Management		Continuation of 2007 Priority Enhancement
Priority Market Enhancements		See Description Below

Scheduling and Pricing Improvements		A series of product enhancement candidates (see candidate list to the left) are under review and consideration. The NYISO is working though benefits analysis and priority discussions with MPs. Project details and specific commitments to be finalized.
Enhanced Scheduling with ISO-NE / PJM		
Disaggregated Virtual Trading		
New Technology Market Integration		
Shortage Pricing Evolution		
Scheduling of Circuitous Transactions		
Other Market Enhancements Under Review		

Proposed Projects – 2009 Budget (Cont.)

Project Deliverable	Budget Impact	Description / Comments
Finance System Products		\$2737K
Credit Management System Automation	Individual project estimates to be reviewed during BPWG meeting.	Continuation of Multi-Year Project
Consolidated Invoice Enhancements		Continuation of Multi-Year Project
Billing Manual Process Automation		Continued Reduction of Manual Entries
Finance Software Re-certification		Annual Certification Activity
Business Intelligence Products		\$2150K
Market Monitoring Data Mart (Phase 2 & 3)		Continuation of Multi-Year Project
NYISO Portal Redesign		Periodic Content / Style Refresh
TCC Products		\$515K
TCC Auction Automation – Phase 3		Completion of Multi-Year Project
TCC Auction Enhancements – Phase 1		Initiation of Market Evolution Efforts
Expansion TCC Market Features		Completion of Market Development Efforts

Proposed Projects – 2009 Budget (Cont.)

Project Deliverable	Budget Impact	Description / Comments
Auxiliary Market Products		\$1300K
DMNC Test Validation Tools	Individual project estimates to be reviewed during BPWG meeting.	Continuation of Multi-Year Project
Forward Capacity Market Implementation		Continuation of Multi-Year Project
ICAP Buyer-Side Mitigation		Continuation of Multi-Year Project
GADS NxL Portal		High Priority Usability Enhancement
Deliverability		Continuation of Multi-Year Project
Infrastructure Products		\$1315K
Oracle Forms Replacement – Phase 3&4		Necessary Infrastructure Enhancement
HRIS System Implementation / Integration		High Priority Productivity Enhancement
Messaging System Replacement		Completion of Multi-Year Project
Hotline Replacement		Completion of Multi-Year Project
Internal Platform Upgrade Support		Necessary Infrastructure Support

Proposed Projects – 2009 Budget (Cont.)

Project Deliverable	Budget Impact	Description / Comments
Operations and Reliability Products	\$2475K	
Outage Scheduler Enhancements	Individual project estimates to be reviewed during BPWG meeting.	Continuation of Multi-Year Project
Reference Price Software Replacement		Continuation of Previously Deferred Project
OATI Tagging Software Enhancements		Necessary Reliability / Market Project
Linden VFT Implementation		Initiation of Market Development Efforts
Load Forecaster Enhancements		Necessary Reliability Project
Mitigation Software Enhancements		Necessary Market Project
Market Software Re-certification		Annual Certification Activity
Mitigation Software Re-certification		Annual Certification Activity

ATTACHMENT II – PCC ADDITION & RENOVATIONS

PCC Current Status

- Completed in 1969 as the NY Power Pool Control Center
- Electric heat throughout
- 30 year old infrastructure (HVAC, electrical, emergency generators, mechanical systems)
- 30 year old Control Room
- Data center at maximum capacity
- Overcrowded office space
- Asbestos in basement and first floor areas

PCC Addition & Renovations

Benefits

- **New Data Center**
 - Sized to match Alternate Data Center (6500 sq ft)
 - New facility will support high availability and more robust disaster recovery
 - New facility will include staging capacity for new equipment and provide space for data storage expansion

- **New Control Room**
 - Control Room upgraded with “State of the Art” Network Board, computerized equipment and furniture
 - Existing workstations for staff other than Operations Center relocated to another part of the building for security
(current space limitations do not allow relocation of these workstations)

- **Building Infrastructure Upgraded as part of Addition & Renovation**

- **New Office Space**
 - New and Existing Office Space upgraded similar to KCC Standards (*Current furniture is aging and space is crowded*)
 - Includes space for Simulator Room, Training Rooms, Seryery with seating & 60 seats for Corporate Continuity
(Current space limitations prohibit this)
 - Provides 31+ new seats at KCC, based on above relocations

PCC Addition & Renovations

Costs

- **New Data Center**
 - \$11-14 Million
 - Includes Data Center portion of New Addition construction, infrastructure upgrades associated with New Data Center and IT migration costs

- **Control Room Renovations**
 - \$4-6 Million
 - Includes construction renovations, infrastructure upgrades associated with Control Room renovations, new 13 ft x 52 ft digital screen and 7 new consoles

- **New and Renovated Office Space**
 - \$4-6 Million
 - Includes office portion of New Addition construction, renovation of existing office & old Data Center into new office space

- **NERC CIP Requirements**
 - \$1-2 Million
 - Includes construction costs associated with 60 seats for Corporate Continuity, relocation of non essential staff seated in Control Room and sealing Control Room openings above the ceiling & below the raised floor

- **Total Costs**
 - \$21- 28 million dollars
 - Includes design services, planning board approval, building permits, construction management, construction, and commissioning
 - NYISO will pursue long-term financing options with expectation of securing such financing by mid-2009 (2009-2011 budgets would contain interest only; principal repayment to begin in 2012)

PCC Addition & Renovations

Cost Comparisons

- NYISO
 - \$21 - \$28 million
 - Includes new Data Center, Control Room renovations, new and renovated office space and NERC CIP requirements. Includes migration costs

- ISO-NE
 - \$32 million
 - Includes construction costs for a new combined Data and Control Center up to migrating hardware and software (in operation)

- PJM
 - \$33 million
 - Includes construction costs for a new combined Data and Control Center up to migrating hardware and software (just completed)

- ERCOT
 - \$42 - \$47 million
 - Includes construction costs for a new combined Data and Control Center up to migrating hardware and software (proposed)

PCC Addition & Renovations

Schedule

- 2008
 - Begin design

- 2009
 - Complete design & bid documents, bid, Planning Board approval, building permits
 - Site work, foundations, structural steel, begin building shell for New Addition
 - Order all long lead equipment, doors, windows and furniture
 - Replace Emergency Generators and selected portions of HVAC, plumbing, electrical & fire alarm / protection systems (not already upgraded)

- 2010
 - Complete building shell for New Addition including all HVAC, plumbing, electrical, elevator and fire alarm / protection systems
 - Relocate Data Center to New Addition (State of the Art) Data Center facility

- 2011
 - Renovate old Data Center space & existing office space to provide new office space similar to KCC standards
 - Renovate Control Room with new (State of the Art) equipment & furnishings
 - Add Simulator Room, Training Rooms, Server room with seating area and 60 seats for Corporate Continuity