NEW YORK INDEPENDENT SYSTEM OPERATOR 2006 Major Product Enhancements

Description

Status and Milestone Deliverables

	Energy Marketplace	Product Enhancements
A767	MIS Enhancements: Comprehensive Bid Management System	 Status: This project is in the requirements and technical design phase. Detailed requirements definition for first two (2) functional areas (Load Bidding and Virtual Bidding) is nearly complete. Technical design of the core infrastructure (security framework) and initial bidding capabilities is underway. The first in a series of technical conferences has been held with Market Participants as part of project communication plan. The first deliverable was deployed successfully on August 8, 2006, incorporating enhanced security capabilities for the MIS Administrator functions. Deliverables: This project will upgrade the web-based application structure to replace overlapping applications by allowing common components to support current application functionality and future application functional growth. On of the deliverables will be the implementation of a more flexible and reliable application infrastructure for the market applications. This project is part of a multi-year effort that will lead to a replacement of the Market Information System (MIS) and related bidding and scheduling applications. This project will continue into 2008.
A871	Enhanced Price Validation	Status: This project has formally launched and is in the detailed requirements phase. The first iteration of Phase 1 has completed on schedule. An iterative requirements, development, and testing approach is being employed to facilitate management of deliverables and efficiency of project tracking. The first phase will deliver the core data management tools on top of which the enhanced functionality will be built.
		Deliverables: The NYISO has investigated all known causes of pricing errors, and has taken a systematic approach to determine features and functions that can significantly enhance the price validation process. Product enhancements ar proposed to implement proactive price monitoring, improved price reservations, and enhanced price corrections. The project will entail a multi-phase, multi-year implementation of tools to enhance the price monitoring, reservation, and correction processes for the NYISO markets. This project will continue into 2007.
A769	Enhanced Scheduling of Combined Cycle Units	Status: NYISO staff has been working closely with owners of combined cycle plants to determine realistic solutions to solve known operational problems. Team is also monitoring developments in other markets (e.g. PJM) where attempts to provide solutions for combined cycle plants have not produced desired results. Certain incremental improvements already implemented in the NYISO have improved bidding flexibility and management of these units. General agreement has been reached on the part of NYISO staff and MPs that a comprehensive modeling solution is neither required, nor practical at this time.
		Deliverables: While the NYISO remains convinced that a comprehensive solution to the combined-cycle unit commitment and dispatch problem is too significant a challenge to undertake at this time, it has improved efficiencies for combined cycle unit owners within the current commitment and dispatch model and is committed to completing its evaluation of system architecture improvements discussed above. The NYISO has also worked with Market Participants to eliminate persistent under-generation charges during start -up, shutdown, and transition periods. In addition, the NYISO also intends to continue working with its Market Participants to design any other incremental improvements that may be made to the existing commitment and dispatch software.

C	Description	Status and Milestone Deliverables
A706	Intra-Hour Transaction Scheduling (ITS)	Status: This project is in the concept development phase. Concept and design work will continue in 2006; development progress will be dictated by various factors including, regulatory process, technical feasibility, and resource constraints. Progress has been significantly slowed by limitations on the part of ISO-NE to support further development
		Deliverables: In 2005, the NYISO conducted a pilot project to assess the ability to evaluate and schedule intra-hour transactions and to identify any operational issues with scheduling. Additional work in 2006 will be based on the outcome of the pilot program; however, it is not expected that any significant software will be completed in 2006.
TBD	Wind Forecasting	Status: This project is in the concept development phase. Concept and design will continue in 2006; development progress will be dictated by various factors including; regulatory process, technical feasibility, and resources. Preliminary requirements documentation has been developed and reviewed internally.
		Deliverables: Design and implementation of the required forecasting systems that would be necessary to efficiently and reliably manage the introduction of significant amounts of intermittent energy sources in New York.
A848	Real-Time BPCG Mitigation	Status: This project is in the Quality Assurance and testing phases. Software deployments completed in August will permit the correct calculation of BPCG in settlements going back to February 2005. Software to automate these functions on a daily, going-forward basis (originally scheduled to be deployed in October), has been delayed due to requirements for additional testing. Current schedules, dependent on successful testing, are targeting a January deployment. Software to correct SRE / OOM mitigation during unconstrained periods in New York City will deploy on schedule in October.
		Deliverables: Correction of certain mitigation errors as identified by the NYISO in a 2005 FERC filing. This project represents the final deliverable in a multi-phased project to correct implementation errors related to mitigation of Supplement al Resource Evaluation (SRE) and Out of Merit (OOM) functions, as well as the mitigation of Real-time Bid Production Cost Guarantee (BPCG) payments.
	Auxiliary Market Pr	oduct Enhancements
A543	ICAP Market Automation – Phase I	Status: Software to automate the ICAP auction processes was deployed into production in late March and activated in April to conduct the Summer strip auction. No significant problems were encountered and the preliminary assessment that the implementation was a success. Certain follow-up enhancements have been identified and are being scheduled
		Deliverable: An automated application to run the ICAP market, also implementing a security model for single sign-on Allow Market Participants to place bids and offers via the web or upload templates, execute the monthly and strip auctions, perform certification, run the spot auction and post the results and bills.

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TBD	ICAP Auction Automation – Phase	Status: This project is in a preliminary planning phase and may formally be initiated late in 2006, following the successful deployment of phase 1 and subsequent post-deployment review of ICAP market operations. Resource constraints and priority considerations may cause this phase to be deferred into 2007.
	II	Deliverables: Following the implementation of the first phase of the ICAP Auction Automation software project, a certain subset of enhancements are planned to complete the full suite of planned features.
TBD	Demand Response for	Status: This project is starting the requirements phase. Initial planning and requirements development is underway development is expected to initiate sometime later this year, with implementation in 2007. A draft functional requirements document has been produced and is being circulated internally for review.
	Ancillary Services	Deliverables: As directed by the FERC, execution of software changes that will permit the integration of demand si resources ("DSRs") into the NYISO real-time ancillary services and energy markets.
	TCC Marketplace Pro	oduct Enhancement
1511	TCC Auction	Status: Software to automate the awards processes for the TCC auctions was deployed to production in late June following a successful market trial in May. No significant problems were encountered and the preliminary assessment that the implementation was a success.
A541	Automation – Phase I	Deliverables: This project will take a phased approach to fully automate the TCC auction and data validation processes. The Awards processing is the planned first phase deliverable. Following phases will address the database and Bidding functions required to fully automate the auction processes.
TBD	TCC Auction Automation – Phase II & III	Status: This project is in a preliminary planning phase and will be formally initiated later in 2006. The NYISO engage Nexant to facilitate a detailed requirements and scope development process that would help define the deliverables for phase 2 and 3. This work has also included consideration of other future market enhancement needs in the requirements definition, and potential inclusion for future phases. The draft report from that exercise will be utilized formulate the recommended TCC project budget plan for 2007.
		Deliverables: Following the implementation of the first phase of the TCC Auction Automation software project, following phases will deliver the Database and Bidding functionality required to fully automate the TCC markets.
	Operations and Relia	ability Product Enhancements
A770	Outage Schedule	Status: This project is in a preliminary planning phase and is tentatively planned to be formally initiated in 2006. Addition of new quality and process control projects may delay the launch of this project. Resource constraints and priority considerations may cause this phase to be deferred into 2007.
	Reporting	Deliverables: As part of the SMD2 project, the Outage Scheduling software was moved entirely to the Ranger syst for both Scheduling and Operations to provide consistency. However, he processes of creating the Outage Schedule reports remains on a secondary database. The creation of the required reports will be ported to the RANGER system

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Description **Status and Milestone Deliverables Status:** This project is in a preliminary planning phase and is tentatively planned to be formally initiated in 2006. Addition of new quality and process control projects may delay the launch of this project. Resource constraints and priority considerations may cause this phase to be deferred into 2007. Integration of OOM A843 and SRE Applications **Deliverables:** Replacement of the Out of Merit (OOM) and Supplemental Resource Evaluation (SRE) applications used by the control room floor. These applications are currently built upon an unsupported platform (Oracle Forms) and can be design to be more efficient and error prone if they are consolidated into a single suite of application functions. Status: This project is an application of the Generic Controllable Tie Line logic deployed for the Cross Sound Cable n 2005. ABB Ranger and MIS model maintenance tasks required for deployment have been defined, and are scheduled Controllable Tie Line for implementation in October. Operational protocols required before production activation are being reviewed for A862 Additions: implementation. **Dennison-Cedars Line Deliverables:** The Dennison-Cedars Line is a controllable tie line between Zone D in NY and HQT. The project, when implemented, will support both import and export transactions independent of the existing NY/HQT interconnection. Status: This project is an application of the Generic Controllable Tie Line logic deployed in 2005. ABB Ranger and MIS model maintenance tasks required for NYISO deployment have been defined and are scheduled for implementation. Controllable Tie Line Final implementation is dependent upon the availability ISO-NE resources. A862 Additions: 1385 Line **Deliverables:** The 1385 Line is a controllable tie line between Long Island and New England. The project, when implemented, will support both import and export transactions independent of the existing NY/NE interconnections. Status: This project is in the concept development stage. Implementation is planned for Q2 2007 to support the commissioning schedule of the Nept une Line. Controllable Tie Line **Deliverables:** The Neptune Line is an HVDC line between Long Island and New Jersey. The project, when A862 Additions: implemented, will provide an additional external proxy bus on Long Island that is scheduled and priced independent of Project Neptune Line other external proxies. As a merchant transmission facility, the Neptune Line may require special bidding protocols similar to those that apply to the Cross Sound Cable. Actual requirements beyond the Generic Controllable Tie lines logic are being defined through the concept development effort.

2006 Major Product Enhancements

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Status and Milestone Deliverables

	Financial Service Pro	oduct Enhancements
A845	BAS Replacement / Billing Engine	Status: This project is in the development and testing phase. An iterative development approach has been employed where groups of the billing rules are being ported to the new engine in phases. The first five (5) sets of billing rules have passed the testing milestone, with the sixth group currently in User Acceptance Testing (UAT). The project schedule has slipped due to a longer than expected development cycle for the system framework and infrastructure build-out, as well as planned scope expansion resulting from the Real-time BPCG Mitigation project. Due to limitations on forth quarter deployments due to Sarbanes-Oxley guidelines, the earliest possible completion date of this phase will be in first quarter of 2007. Data center migration plans that are part of the new facility project may introduce additiona delays in second quarter.
		Deliverables: Implementation of a rules-based design as a replacement to the settlements engine in the Billing and Accounting System (BAS). Project will leverage technology investment made as part of the Billing Simulator and will lead to a higher performing calculation engine for billing, as well as a more flexible architecture for managing future changes to the settlements processes. This project is part of a multi-year effort to replace the entire billing system including, the invoicing components, web-based reconciliation, and integration of certain credit functions. This project is scheduled to continue into 2008.
A836	Automation of Voltage Support Service (VSS) Payments	 Status: Software to automate the calculation of the Voltage Support Service was successfully deployed to production on May 9, 2006. This project is completed. Deliverables: Automation of a manual settlements' process. This effort is part of a larger effort to reduce and / or eliminate the need to perform manual billing adjustments on customer invoices. Opportunities will be explored through the year to determine additional automation features that can be implemented, and those projects will be individually presented as they are launched.
	Business Intelligenc	e Product Enhancements
A849	DSS Pricing and Operational Data Mart	Status: This project has completed the requirements and design phases and has entered the development phase. Project activities are slightly off schedule due to moderate scope expansion (from original concept budget and schedule in order to meet requirements presented by Billing and Price Correction Task Force. Internal technical deployments will be feasible during 2006, but Market Participant deliveries of the functionality (originally scheduled for 3 rd or 4 th quarter of 2006) will not be made until early 2007. Sarbanes-Oxley limitations on 4 th quarter software deployments are partly driving decisions to defer implementation until 2007.
		Deliverables: During recent years, the NYISO has made a significant investment in data warehousing technology through the implementation of the Decision Support System (DSS) to support the NYISO settlements processes. This project will expand the DSS customer base by delivering pricing data that will support the price validation processes an provide greater transparency to the NYISO markets.

		2006 Major Product Enhancements
C	Description	Status and Milestone Deliverables
TBD	Enhanced Portal Dashboards	 Status: This project is in a preliminary planning phase and is tentatively planned to be formally initiated in 2006. Addition of new quality and process control projects may delay the launch of this project. Resource constraints and priority considerations may cause this phase to be deferred into 2007. Deliverables: Enhancements made to the NYISO Portal platform to support the implementation of the new data elements available through the Decision Support System (DSS), as well as improved reporting functionality to augmen wide variety of data supplied through this mechanism. Initial focus will be applied to the pricing and operational data capabilities.
	Other NYISO Key P	rojects
A775	Consolidate NYISO Offices	 Status: Personnel relocation activities have completed that enabled the NYISO to vacate the Washington Avenue facil and fully occupy the 4th floor of the new Head Quarters facility. Demolition activities are underway on the 2nd and 3rd floors, and construction has started. Detailed planning for the data center migration is underway. The schedule for implementation of the new Data Center, as well as migration activities of existing Data Center and Alternate Control Center functions, will be a significant gating factor for many 2007 NYISO projects. Deliverables: This project seeks to secure ~150,000 square feet of office space to include administrative offices, alternate control center and back-up IT/disaster recovery functionality. During 2006, this facility would replace the current NYISO locations at Washington Avenue, Wolf Road, and Western Turnpike.