Project Title	Preliminary Project Description
Auxiliary Market Products	
Additional Capacity Zones	The NYISO and stakeholders are developing the rationale in 2010 for creating additional capacity zones, identified as a recommendation in the 2009 State of the Market report. A FERC compliance filing is due in October 2010 that will define the criteria for creating new capacity zones. A Lower Hudson Valley capacity zone is under consideration to reduce the impact of deliverability and better reflect the cost of new entry. The 2011 project would focus on the functional design of the logic to generalize the addition, and possibly subtraction, of capacity zones within the ICAP Automated Market System.
Buyer Side Mitigation Rules	Implement any rule changes required as a result of 2010 stakeholder discussions on buyer-side mitigation; changes could include floor price adjustment, duration of mitigation, and exemption tests. Implementation would require changes to the ICAP Automated Market System.
Capability Year Adjustment	The NYISO's Capacity Market Capability Year runs from May through the following April; both ISO-NE's and PJM's capability years begin in June. The misalignment of capability years creates issues for suppliers importing capacity into NY from PJM or ISO-NE for use in the NYISO's strip auction, and also impacts NY LSE IRM/locality requirements. This project will consider the extent of market rule changes, software changes and potential operations procedure changes that would be required to align NY's capability year with those of PJM and ISO-NE. This project would focus on aligning NYISO's Capability Year (May-April) with neighboring RTOs (June-May), pending the outcome of 2010 stakeholder discussions. If approved by MPs, NYISO will need to modify tariff and ICAP manual language to reflect new rules, along with significant software changes within the existing ICAP Automated Market System.
Demand Response Event Notification	This project would replace the existing technology used to communicate to demand response providers when a day-ahead advisory or in-day deployment of EDRP and/or SCR is needed. The NYISO will communicate a list of e-mails, phone numbers, and event text messages to the selected vendor's application, which will initiate phone calls/e-mails to the list provided. Entities receiving notices will log their responses directly through the Demand Response Information System (DRIS) web interface.
Demand Response Aggregations in DSASP	Based on the NYISO's response to FERC Order 719, in 2010 NYISO will be investigating the changes needed to accommodate aggregated small demand response resources providing ancillary services (DSASP). The current DSASP program allows individual resource participation through a TO; Market rule changes should be minimal if aggregations are treated in the same manner as individual DSASP resources. Implementing required rule changes and software changes will be the focus of the project in 2011.
DSASP Direct Metering	This project will address the required market rule, software, and hardware changes needed to enable direct communications from the NYISO to the DSASP provider/aggregator. The scope of this effort will be determined by NYISO and stakeholder discussions in 2010.

Project Title	Preliminary Project Description
Demand Response – Real Time Energy Market	The focus of this project in 2011 is implementation of the market rules and any software changes required to permit demand response entities to participate in the NYISO's real-time energy market. The scope of this effort will be determined in the 4th quarter of 2010.
Generator Availability Data System (GADS)	Auxiliary Market Operations currently uses a manual process to accept MP-submitted outage information in spreadsheet form. The focus of this project is the integration of GADs data (generator forced outage statistics) with the ICAP auction software using the NxL GADs software package from Solomon Associates. The primary deliverable will be a front-end user interface to allow MPs to enter generator outage information.
SCR Baseline/Aggregation Rules	The focus of the project in 2011 is the deployment of any necessary software changes within the Demand Response Information System (DRIS) to implement changes as the result of stakeholder discussions in 2010 on SCR baseline/aggregation rules.
Business Intelligence Products	
Data Warehouse Platform Evolution	The Netezza data warehouse appliance is a high performance, scalable, and cost effective solution for NYISO to deliver business intelligence projects faster and greatly increase reporting performance. NYISO will complete the installation and the migration of the first data mart in 2010. In 2011 the NYISO will migrate the remaining data marts to this new platform.
Data Access for Market Mitigation and Analysis	The MMA data access project is progressing through the functional areas that MMA has identified for their analysis and monitoring work. ICAP and TCC data could be integrated with the large number of data elements already within the MMA data mart to provide a more comprehensive set of data for analysis and reporting. This data would be loaded into the new Netezza platform.
E-Planning Enhancements	E-Planning is a comprehensive collaboration system for NYISO System Resource Planning. The 2010 deployment was specific for Interconnection Studies. The focus of the 2011 project will be extending functionality to include other types of studies conducted by System Resource Planning, such as Transmission Studies.
Public Website: Maps and Graphs Upgrade	The maps and graphs displayed on the Market Data pages of the Public Website are extensively used. They are displayed using a very old technology, which cannot continue to be effectively supported. This project would replace the technology and examine possible enhancements to these graphical displays.
Public Website: Publishing Process Redesign	The public website process for posting documents to www.nyiso.com is an integrated solution using Documentum and Tibco Portal Builder, which is a dated and costly solution. The focus of this project is to implement new technology and provide a more efficient and cost-effective solution. The website's current look and content would be preserved, but the processes to maintain the site and post information to the site would be replaced.

Project Title	Preliminary Project Description
Web Posting Enhancements	The Web Posting Enhancement project is a multi-year project with phased deliverables to address the following objectives: • Improve reliability and performance of the web posting process • Eliminate dependency on proprietary Tibco technology for Postings (major step toward $440k/yr cost reduction) • Ensure pricing data quality across NYISO systems with authoritative transactional source for prices and price versions • Improve reliability and greatly simplify DSS price data integration • Address NAESB WEQ-002 posting technical requirements • Support SmartGrid initiative by posting LBMP prices to TOs over ICCP (item may be listed with energy product projects) "Web Postings" refers to a series of Tibco Business Works processes that generate and publish various CSV, PDF, and HTML files to NYISO's OASIS site (http://mis.nyiso.com/public). These files include zonal and generator pricing data for the Real-Time, Hour-Ahead, and Day-Ahead markets, outage data, interface limits & flows, PAR schedules & flows, actual load and load forecasts, various reports, and other publicly available data used by our Market Participants. There are over 40 postings in total that publish to the site throughout the day.
Energy Markets Products	
Ancillary Services Mitigation	Per recommendation of NYISO's Market Advisor, NYISO should modify two mitigation provisions that may limit competitive 10-minute reserves offers in the day-ahead market. This project would focus on an evaluation of these two mitigation provisions and identification of appropriate modifications, if necessary.
Buy-through of Congestion	Buy-Through of Congestion is a Broader Regional Markets initiative that addresses congestion costs created by loop flow from external transactions. Parties scheduling transactions with any of the ISOs surrounding Lake Erie would be billed for real-time congestion costs incurred by neighboring systems supporting the loop flow created by the transaction to maintain the schedule. Parties scheduling transactions would specify if they are, or are not, willing to pay for off-contract path congestion. This project will implement this functionality. This project was one of the BRM initiatives identified in NYISO's response to FERC on Loop Flows.
Disaggregated Virtual Trading	In the 2006, 2007, & 2008 State of the Market Report, the NYISO's Market Advisor highlighted an issue with energy market price convergence in New York City. Specifically, Dr. Patton highlighted an apparent divergence between day-ahead and real-time energy prices in specific New York City load pockets. That concern led to the recommendation to consider allowing virtual trading at a more disaggregated level or identify other means of improving convergence in the load pockets. In addition to Dr. Patton's recommendation, some Market Participants have requested extension of the NYISO virtual market to allow trading at the nodal level (current functionality only supports trading at the NYISO load zones). In 2008 and 2009, the NYISO investigated the market and software implications for extending the current zonal virtual trading capability to generator locations. In 2010 the NYISO developed credit requirements in support of the market design.
Disaggregated Virtual Trading – RT	Real-Time Congestion Hedge is a Broader Regional Markets initiative that allows Market Participants to submit virtual Bids

Project Title	Preliminary Project Description
Congestion Hedge	into the Day-Ahead Market based on the difference in congestion costs between any 2 points that are eligible for virtual trading. The difference in congestion costs between the 2 points would be purchased (or sold) in the Day-Ahead Market and then sold (or purchased) in the real-time market. This would bring congestion costs closer together between the Day-Ahead and real-time markets, and would improve the hedging options available to Market Participants once Buy-Through of Congestion has been implemented.
Dynamic Reserves	Currently the NYISO secures ancillary services for 1.5x the single largest contingency of 1200MWs. In the second half of 2010, upgrades to an internal generator will increase this number to near 1400MWs. In 2010 the NYISO evaluated the feasibility of updating the unit commitment model to evaluate the economics of simultaneously scheduling resources above the existing 1200 MW level while recognizing the corresponding increase in reserve scheduling requirements.
Energy Storage Optimization	The current NYISO model for dealing with large scale storage models, i.e. pump storage, is to force these units to manage their own commitments for injections and withdrawals. This project would focus on the feasibility and appropriateness of allowing the Day Ahead model to optimize a multiple status (GEN/OFF/PUMP) resource.
Enhanced Shortage Pricing	The NYISO implemented reserve demand curves as part of the SMD2 implementation to accurately and consistently capture shortage conditions directly into the market clearing prices. During the development of the market rules, set points (or set point/ MW pairs) were established for the Ancillary Service products.
Interregional Transaction Coordination Phase II – Ancillary Services	Interregional Transaction Coordination Phase 2 is a Broader Regional Markets initiative that supports scheduling of ancillary services from external control areas. Currently ancillary services can only be provided by internal NYISO resources. The 2008 and 2009 State of the Market recommendation #2 is, "NYISO continue its work with neighboring control areas to better utilize the transfer capability between regions." This project will examine and develop the functional requirements necessary to support procuring and selling ancillary services from external control areas. This project was one of the BRM initiatives identified in NYISO's response to FERC on Loop Flows.
Interregional Transaction Coordination Phase III – PJM Intra-hour Transaction Scheduling	Interregional Transaction Coordination Phase 3 is a Broader Regional Markets initiative that provides more frequent scheduling of external energy transactions, specifically with PJM. Currently energy transactions between NY and other control areas are evaluated economically once for the hour. The 2008 and 2009 State of the Market recommendation #2 is, "NYISO continue its work with neighboring control areas to better utilize the transfer capability between regions." This project expands upon the work completed in Phase 1 by implementing Intra-hour energy transaction scheduling capabilities with PJM. This project was one of the BRM initiatives identified in NYISO's response to FERC on Loop Flows.
Interregional Transaction Coordination Phase IV – ISO-NE Intra-hour Transaction Scheduling	This project expands upon the work completed in Phases 1 and 3 by implementing Intra-hour energy transaction scheduling capabilities with ISO-NE. The 2008 and 2009 State of the Market recommendation #2 is, "NYISO continue its work with neighboring control areas to better utilize the transfer capability between regions." This project was one of the BRM initiatives identified in NYISO's response to FERC on Loop Flows.

Project Title	Preliminary Project Description
Market to Market Coordination - PJM	In late-2006, PJM approached NYISO, interested in developing a program to allow inter-control area dispatch to help manage congestion. PJM has implemented a program with MISO and is currently in the early stages of designing such a program with SPP. In 2007, NYISO initiated discussions with PJM to further understand the MISO program and begin to outline a conceptual straw proposal for a similar program between PJM and NY. NYISO has continued to define the details of a Market to Market (formerly known as Congestion Management) protocol between NYISO and PJM. In 2009, NYISO worked with PJM and NYISO stakeholders to develop a Market to Market protocol. Protocol development was not completed in 2009. The question of entitlement rights on coordinated flowgates could not be addressed until the NYISO had developed or procured a market flow calculator. In 2010 the NYISO worked with OATI to develop the NERC IDC market flow calculator to provide the necessary data input for the Market-to-Market process. In 2011 the NYISO will implement software to enable Market to Market coordination between PJM and NY. This project was one of the BRM initiatives identified in NYISO's response to FERC on Loop Flows.
Market to Market Coordination - NE	This is a project to implement a Market to Market protocol with ISO-NE. This project was one of the BRM initiatives identified in NYISO's response to FERC on Loop Flows.
PAR Modeling Upgrades – Broader Regional Markets	PAR Modeling Upgrades is a Broader Regional Markets initiative that modifies how power flows are represented on the SCUC, RTC and RTD models. This requires changes to the current PAR modeling techniques used by SCUC, RTC and RTD, where PARs will need to be modeled as free flow devices for the purposes of pricing and dispatch but also provide the ability to offset the PAR schedules with an injection or withdrawal to represents extrinsic power flow effects like Lake Erie Loop Flow.
Proxy Bus Location Changes	Proxy Bus Location Changes is a Broader Regional Markets initiative that modifies how power flows are represented on the SCUC, RTC and RTD models. This change will have impacts on how parallel flows are represented in the scheduling and pricing calculations. Therefore, it is important for the NYISO to ensure that all proxy buses currently in use are located at buses that most accurately represent the anticipated real-time power flows, so that the scheduling and pricing out of SCUC, RTC and RTD most accurately reflect the anticipated actual real-time conditions.
Scheduling & Pricing: Regulation Ramp	Today, some generators have a physical limitation on the regulation that can be provided within certain unit operating ranges. This project will allow generators to specify different regulation response rates for different energy output levels, similarly to the three energy response rates allowed today. With these additional regulation response rates, SCUC, RTC, RTD and AGC will know how best to co-optimize the output of a generating unit while meeting the physical operating characteristics of that unit. Additionally, these responses rates will still need to be maintained at a rate that is equal to or lower than the energy response rate. An alternative solution may be to create a distinct regulation upper limit.
SCUC Time Window Optimization Evaluation	Today, SCUC is designed to optimize the Day Ahead Market for a 24 hour window starting at midnight the next day and ending at midnight two days away. Additionally, SCUC only optimizes schedules on an hourly basis. Modifying the optimization horizon and/or optimizing schedules on a more frequent basis may gain efficiencies in reduced uplift and better Day Ahead to Real-Time price convergence.

Project Title	Preliminary Project Description
Enterprise Technology Products	
Application Platform Evolution	This is a multi-year initiative that will evolve the way NYISO designs and develops software. The first phase of this project will complete the application web server migration from WebLogic to JBoss that started in 2010. This will reduce the application server maintenance costs and enable NYISO's strategic application platform evolution to Service Oriented Architecture (SOA). The second phase of this project will advance the SOA strategy adopted by NYISO to provide greater flexibility for integrating its applications with outside applications and reduce development response time for meeting business needs and evolving industry requirements.
Configuration Management Enhancements	This project will enable NYISO to continue to meet NERC-CIP compliance and audit requirements, maintain institutional knowledge of NYISO systems while protecting access to this information, incorporate application outage information and project dependencies into planning schedules to avoid potentially disruptive and costly project delays.
Enterprise Data Storage Migration	The leases for the current hardware expire November 30, 2011. This project focuses on migrating from leased storage hardware onto storage hardware with a longer lifespan that can be upgraded with minimal disruptions to the organization. This new storage hardware supports increased performance and storage requirements, which are required for upcoming market design and Smart Grid initiatives.
Market Data and Settlement Management	This is a multi-year initiative to enable the NYISO to better support the high volume of data associated with upcoming market design initiatives. The first phase of this project is to complete a system design and architectural model to be applied to new application development. Future phases would apply this model to existing applications, specifically to reduce the size of the BAS/HIST database and maintain the performance of market transaction and settlement systems.
Network Performance and Switch Upgrade	This project focuses on designing and upgrading the NYISO network and switches to meet system performance requirements of upcoming data-intensive market design and PMU applications while replacing equipment nearing the end of its useful life.
Network Monitoring Evolution	This project will improve monitoring tools for the Network Operations Center to maintain system availability and proactively identify issues before they affect external market users.
Public Key Infrastructure (PKI) Enhancements	The focus of this project is to make network configuration changes to continue preventing unauthorized access to NYISO's market system and to put in place enhancements to support changing security standards. NYISO uses public key infrastructure (PKI) to securely communicate with and validate the identities of the Market Participants who process transactions within New York's wholesale electricity market. Currently, NYISO is its own Certificate Authority (issuing certificates for each new system user). Several developing standards for the use of PKI will likely affect the existing practices within the NYISO and will need to be monitored (e.g. NAESB, NIST).
PBX Replacement	Replace and upgrade end of life phone system equipment at the PCC to reduce operating costs and improve telecommunications reliability.

Project Title	Preliminary Project Description
Ranger Hardware Migration	The leases for the current hardware expire November 30, 2011. This project focuses on migrating from leased servers onto a scalable solution that can be upgraded with minimal disruptions to the organization, extends the lifespan of the Ranger platform, and enables software performance tuning to support data volumes anticipated with future market initiatives.
Web Access Management	The focus of this project is to make network configuration changes to continue preventing unauthorized access to NYISO's market system and to put in place enhancements to support changing security standards. NYISO uses public key infrastructure (PKI) to securely communicate with and validate the identities of the Market Participants who process transactions within New York's wholesale electricity market. Currently, NYISO is its own Certificate Authority (issuing certificates for each new system user). Several developing standards for the use of PKI will likely affect the existing practices within the NYISO and will need to be monitored (e.g. NAESB, NIST).
Finance Products	
Bid Production Cost Guarantee Enhancements	These changes were requested as part of the Strategic Tariff review and specifically impact the DA & RT BPCG calculations with respect to Bilateral transactions and RT BPCG for regulation providers. Modifications are needed to the DA and RT BPCG calculations for generators with bilateral transactions to use implied revenues based on LBMPs and actual bid costs. In addition, to include start up costs in the calculation of BPCG regardless of the existence of bilateral transactions. Modification needed to the RT BPCG calculations for generators providing RT regulation that do not have a DA schedule for energy to include both the cost and revenue components associated with Incremental energy from the units Min Gen to Min Gen plus scheduled regulation MW's. The incremental energy costs are currently not included in the calculation.
Consolidated Invoice Redesign	This is a multi-year project focused on replacing the existing ConInvoice system. This project will focus on migrating the Consolidated Invoice application technology to align with the NYISO footprint. This migration will provide flexibility for the existing modules while also ensuring a consistent look and feel across the Consolidated Invoice application suite. In addition, this project will include modifications to Consolidated Invoice, Credit Management System, Oracle Financials and Finance Department processes, and the Customer Settlements Data Mart to support flexible invoicing. This project has a proposed implementation of Phase 1 August 2011 to support the FERC NOPR regarding a shortened settlement cycle; Phase 2 is anticipated in 2012 to complete a necessary technology upgrade, redesigned Settlements Application Architecture (SAA) and additional user functionality.
Credit Management System Technology Enhancements	Enhancements to CMS will align this application with the NYISO technology footprint. The CMS application needs to be upgraded to JBoss to address known communication issues between JBoss and Weblogic and upgrade the database to Oracle 11g. In addition, the NYISO will be enhancing the data design and building out the User Interface to better support production needs.

Project Title	Preliminary Project Description
Expansion of Reliability Compensation (MOB) Rules	Some of the NYC generator owners have expressed concern with the existing Minimum Oil Burn (MOB) program and settlements. There are a number of issues ranging from operator actions and MOB criteria that are being addressed through SOAS, but in addition, there are a number of compensation issues that the MPs have expressed should be included in the MOB program. These scenarios would require Tariff and software changes to allow the NYISO's MOB settlement program to include these additional compensation rules. In addition, some Market Participants have an interest in expanding the compensation criteria to include any reliability directive that causes negative financial consequences to the supplier of the reliability service. This expansion would potentially include reliability directives from the TO or NYISO.
Oracle Financials Upgrade	This project will focus on upgrading Oracle Financials to minimize the costs associated with Oracle support and to keep the NYISO systems better aligned with the current version of the software. This project is envisioned to be phased to encompass 1) changes to be made to existing NYISO reports and processes to better prepare for the upgrade and then 2) the actual upgrade of the Oracle Financials software.
Rate Schedule 1 Automation	The project would focus on a market design concept for Rate Schedule 1 Allocation based on the outcome of the Rate Schedule 1 study and stakeholder discussions in 2011.
Revised TCC Credit Requirements	The current TCC credit requirements lead to potential over or under- collateralization in certain circumstances so the NYISO is proposing to address these issues by choosing to re-price TCC's more frequently as follows: • For 2 year TCCs - re-price them at the 1 yr point, 6 month point and 1 month point using the auction prices for the remaining duration of the TCC as determined by the last round of the auction. • For 1 year TCCs - re-price them at the 6 month point and 1 month point using the auction prices for the remaining duration of the TCC as determined by the last round of the auction. • For 6 month TCCs - re-price them at the 1 month point using the auction prices for the remaining duration of the TCC as determined by the last round of the auction. These changes would reduce the holding requirement on TCCs which are sold in their entirety to $0, recalculate appropriate holding requirement for partially sold TCCs and would adjust TCC holding requirements more frequently to account for changes in market conditions.
Unbalanced Bilateral Trading Hub Transactions	The current market design requires Trading Hub transactions to be balanced by location and MP on an hourly basis. Some MPs have requested the NYISO to allow unbalanced trading hub transactions, which would require implementing credit requirements for these transactions within the Credit Management System (CMS).

Project Title	Preliminary Project Description
NYISO Business Products	
Business Process Automation	This project focuses on continuing to implement a vendor product to better create, manage and optimize enterprise business processes throughout the entire process lifecycle. Capabilities of this off-the-shelf product include automating manual processes, providing audit trail capability, integrating with records management, enhanced reporting capabilities, and workload analysis
Compliance Tracking	The compliance tracking tool allows NYISO to store and track all of its compliance requirements across various business units, as well as provide reports, mapping, scheduling and alerting on compliance requirements. NYISO business units are developing compliance workflows for deployment into a production environment in 2010. In 2011 the project will focus on remaining business units required to manage compliance initiatives and requirements.
Desktop Virtualization	The focus of this project is to implement the recommendations of a 2010 evaluation of opportunities for expanded desktop virtualization. Benefits of the project include centralized security, reduced costs, more efficient patch management, and faster deployments. This project also includes a Windows upgrade to support the implementation.
Human Resource Management System	The objective of this project is to assist NYISO in improving the Human Resources processes with a highly automated information system that is more efficient and auditable. The NYISO Human Resources process is currently carried out by a team of HR Generalists who use a set of spreadsheet-based tools, manual data capture, and storage processes. While the manual processes are well-documented and consistently followed, they can be cumbersome and inefficient. Specifically the following challenges exist with the current Human Resources management processes and tools: • Labor-intensive calculations are prone to the potential for errors and omissions; • Redundant calculations, multiple data sources, manual entries, and lack of up to date information due to the lack of dynamic integration with other internal and external systems; • Lack of reporting capability and the inability to capture and track data relationships; • Concern with the ability to meet stakeholder expectations; The end-state vision is an application: • That supports bidirectional data flow between NYISO applications • Robust enough to support future expansions • Easily configurable to support calculation changes • Standard and customized reporting capabilities to support analysis and business processes
Identity and Access Management	This project continues the roadmap initiated in 2010. This project will help address NERC CIP compliance requirements and deliver a foundation for enterprise-wide identity and access management. Technical controls and workflows will manage employee user identities and access rights to widely used critical cyber assets defined by NERC CIP. The solution will provide reporting and visibility to current access entitlements and immediate revocation of rights on employee exit.

Project Title	Preliminary Project Description
Service Management Enhancements	This project will focus on upgrading the existing vendor product to prepare it for use in managing software defects, enhancement requests and begin utilizing out of the box functionality for configuration management.
Operations & Reliability Products	
Dynamic Pricing	Pending the outcome of the technological evaluation in 2010, this project will make available LBMP data directly to the Transmission Owners in support of on-going Smart Grid efforts. Today TOs must gather LBMP data from the NYISO web.
North Subzone Redistricting/Resource Model Effective Dating	The focus of this project is to implement effective dating of information within MIS. Currently, equipment, subzones and other important definitions remain in MIS indefinitely. This project requires changes to many of NYISO's applications; additional analysis would be required to determine the full scope of the project.
Operational Tools Enhancements	The focus of this project is to provide the tools necessary to improve NYISO Operations' analytical capabilities for purposes of improving reliability. There are several initiatives, including support for continuing to provide NERC IDC mandated data exchanges to meet NERC and NASB standards. Additional tools will be identified and selected to address the requirements of larger bid volumes as a result of upcoming market design initiatives. Existing manual processes used by SCUC Engineers in determining DAM Unit Commitment will be reviewed and automated where possible.
Outage Scheduler Phase IV: Integration with Internal Applications	This phase of the project will focus on integrating Outage Scheduler with the NYISO suite of applications. This includes automated feeds to satisfy the outage data requirements of Market Mitigation and Analysis, Auxiliary Market Operations, Wind and Planning departments, as well as enabling future TOA to TOA data exchanges.
Phase I Metering Enhancements	This project involves transitioning the 62 analog tone circuits and their associated transmitters to digital circuits and transmitters. The need for this is being driven by the fact that analog telemetry is an obsolete method, which results in such challenges as scarcity of parts, new meters being installed that do not have an analog output, and telecommunication carriers petitioning the government to discontinue analog tone service. The current RFL 9840 analog signal processing equipment would be replaced by digital PLCs.
Phase I Metering Expansion	NYISO requires that all external tie lines and all generators 500 megawatts or greater have Phase 1 (continuous analog signal) metering and an associated chart recorder. While all tie lines are metered in this way, there are some generators that do not have Phase 1 telemetry. The focus of this project is to upgrade the Phase 1 data system to be consistent with NYISO Control Room requirements.
Ranger Enhancements for Optimization and Performance	Over the next few years, projects like Disaggregated Virtual Trading and the Broader Regional Market initiatives are expected to significantly increase data and transaction volumes processed in the Ranger system. This project aims to analyze and deploy optimization requirements from ABB that are appropriate to improve processing. The primary focus will be on optimization of SCUC processing time.

Project Title	Preliminary Project Description
Reference Level Software Enhancements	This project will focus on enhancing the Reference Level Software (RLS) application scheduled for implementation in 2010. The enhancements to the RLS application will continue to automate manual processes and provide long term monitoring tools to Market Mitigation and Analysis.
Web Posting for Events	This project will enable the posting of events to nyiso.com in real time such as Major Emergency, Thunder Storm Alert, Reserve Pickup and Area Control Error (ACE).
Wind Resource Management Phase III	Currently the NYISO's Operations group evaluates wind forecast performance through manual data mining and analysis. This analysis involves manually compiling the data into reports for NYISO Management to evaluate the quality of NYISO's wind forecasting program. These reports, some of which are published to Market Participants, are produced on regular basis. This project will provide NYISO Operations with an automated solution, including server redundancy, adhering to NYISO's IT Software Development procedures, to creating wind forecast performance reports with production wind forecast data.
Planning and TCC Market Products	
Attachment K and L Enhancements	Potential changes to Attachment K and L will required some code changes to the auction automation system with regard to the effective dating issue regarding Grandfathered Rights.
Incremental TCC Upgrade for Multiple Developers	Attachment S requires that the NYISO award Incremental TCCS to multiple developers involved in system upgrade facilities. The current system allows for only one developer to receive Incremental TCCs. Auction automation would require changes once the proposed recommendation is approved.
Non-historic Fixed Price TCCs	Auction automation changes required to support the implementation of Non-Historic LTTCCs. This is a FERC order from 2009. The compliance filing was made to FERC on April 2, 2010 with a proposal of Fall 2012 offering.
TCC Multi-Duration and Balance of Period Centralized Auction	This project continues the 2010 efforts to provide for TCC Auction 'End State' functionality; in 2010 NYISO implemented functionality for MPs to sell TCCs in any round. Continuing efforts will focus on the following: • Implement Multi Duration Capability Period Auctions • Balance of period (BOP) TCCs; revised structure of the monthly auctions.
High Performance Computing for Planning Studies	This is a project to put in place the infrastructure required to enable System Resource Planning to conduct large, data intensive planning studies.
Siemen's PTI Model-on-Demand Phase II	The second phase of this project will focus on maintenance and consulting for implementation of the Siemens PTI Model-on-Demand (MOD) web portal, which will allow TOs and MPs to review and approve data in a structured, interactive manor; updates and corrections can be submitted to the NYISO for review and approval.

Project Title	Preliminary Project Description
System Upgrade Facility	This project will automate the existing manual process for tracking financial information regarding SUFs and SUDs as determined in the Class Year Facilities Studies. This will include: • Recording the cost of estimates, cost allocation, and Headroom (i.e. remaining unused capacity) of new SUFs and SUDs identified in each Class Year Facility Study. • Recording any subsequent adjustments of costs and cost allocation of SUFs and SUDs for reconciliation of actual versus previous estimated costs. • Tracking the usage and adjustments of Headroom for previously cost allocated SUFs and SUDs as determined in subsequent Class Year Facility Studies.