2021 Enterprise Project Candidates

Product and Project Management

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This document represents potential 2021 Enterprise project candidates. Enterprise projects include internal-facing technology and back office support projects that have no market rule changes. The list includes projects that may be noticeable to Market Participants. These project candidates and their corresponding descriptions reflect information known about each of the project candidates as of the date of this document.

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Introduction

This document represents potential 2021 Enterprise project candidates. Enterprise projects include internal-facing technology and back office support projects that have no market rule changes. The list includes projects that may be noticeable to Market Participants. These project candidates and their corresponding descriptions reflect information known about each of the project candidates as of the date of this document. Projects are classified as four project types.

Project Type	Description
Mandatory	Strategic Initiatives and FERC Orders. These projects will be included in the budget
Continuing	Approved in a prior year and have progressed to either software design or development complete. Additional projects may be classified as Continuing based on stakeholder feedback. These projects will be included in the budget
Future	Consensus from stakeholder discussions of this projects priority relative to other projects has resulted in these projects NOT being prioritized and initiated in the coming budget year. Resources, time constraints, stakeholder feedback, and other project dependencies have been taken in to consideration
Prioritize	Projects to be prioritized and included in the budget based on a feasibility assessment taking into consideration resources, time constraints, stakeholder feedback, priority score, and other project dependencies. Market projects are included in the stakeholder survey

Enterprise projects are NOT included in the stakeholder survey. Enterprise projects that are Prioritize (not Mandatory, Continuing, or Future) are scored by the NYISO during the prioritization phase. These projects are included in the budget based on a feasibility assessment taking into consideration resources, time constraints, stakeholder feedback, priority score, and other project dependencies. The table that follows identifies project type for each of the projects included in this document.

Item	Project Name	Product Area	Project Type
1	Enterprise Information Management - Data Integration Phase IV	Business and Finance Products	Continuing
2	FERC Form1 Redesign	Business and Finance Products	Mandatory
3	NYISO Budget (Rate Schedule 1) Cost Recovery Update	Business and Finance Products	Prioritize
4	Transactions Modifications and Confirmation Tool	Business and Finance Products	Continuing
5	Credit Price Spread Updates - Virtual & External Transactions	Business and Finance Products	Prioritize
6	Working Capital Application Enhancements	Business and Finance Products	Prioritize
7	Accounting and Settlements Integration	Business and Finance Products	Prioritize
8	Minimum Oil Burn Enhancements	Business and Finance Products	Prioritize
9	SDX API Pilot	Business and Finance Products	Prioritize
10	Stakeholder Services Salesforce CRM Enhancements	Business and Finance Products	Prioritize
11	Demand Curve Reset Tool Updates	Capacity Market Products	Prioritize
12	DAM Congestion Settlement Re-Allocation	Energy Market Products	Continuing
13	Energy Market Software Performance	Energy Market Products	Prioritize
14	ACC Control Room Renovations	Enterprise Products	Continuing
15	Access Management	Enterprise Products	Prioritize
16	Application Platform Upgrade	Enterprise Products	Prioritize
17	Database Upgrade	Enterprise Products	Prioritize
18	IT Infrastructure Automation	Enterprise Products	Continuing
19	IT Service Management Improvements	Enterprise Products	Continuing
20	Network Infrastructure Upgrade	Enterprise Products	Continuing
21	2021 NERC CIP Audit	Enterprise Products	Mandatory
22	Linux and Storage Infrastructure Refresh	Enterprise Products	Prioritize
23	Ringdown Replacement	Enterprise Products	Prioritize
24	Unified Communications Platform	Enterprise Products	Prioritize
25	Windows System Upgrade	Enterprise Products	Prioritize
26	Application Security Enhancements	Enterprise Products	Prioritize
27	Gurobi (MIP) Migration and Upgrade	Enterprise Products	Prioritize
28	Web Content Management System Upgrade	Enterprise Products	Continuing
29	Automated Default Bid Mitigation	Operations & Reliability Products	Continuing
30	Load Forecasting System Upgrade and Build Out	Operations & Reliability Products	Prioritize
31	Transmission and Generation Scheduling System (TAGSS)	Operations & Reliability Products	Continuing
32	NextEra Transmission Owner Integration	Operations & Reliability Products	Mandatory
33	EMS Visualization Native PI Viewer - Interface and Event Tool	Operations & Reliability Products	Prioritize
34	EMS/BMS Operational Enhancements	Operations & Reliability Products	Continuing
35	Grid Guardian Network Topology Feature Implementation	Operations & Reliability Products	Prioritize
36	Natural Gas Notices Enhancement Project	Operations & Reliability Products	Prioritize
37	IT Development and Control of Compliance Reports	Operations & Reliability Products	Prioritize
38	LFDR Upgrade and Enhancements	Planning Products	Prioritize
39	Demand Forecasting Operational Reporting Enhancements (SAS)	Planning Products	Prioritize
40	ePlanning Migration	Planning Products	Prioritize
41	Dynamic Modeling Database Enhancements	Planning Products	Prioritize
42	TCC Auction Billing	TCC Products	Prioritize

Business and Finance Products

1 Enterprise Information Management – Data Integration Phase IV

This project is a continuation of the multi-year strategic initiative focused on bringing together process, design, and technology to satisfy market and operations information needs at the NYISO. This phase of the project will complete the migration of the Customer Settlements data mart, positioning the NYISO to upgrade the Oracle database to the latest version and to retire Oracle Warehouse Builder.

2 FERC Form 1 Redesign

The NYISO is required to submit different forms (Forms 1, 3-Q, 714, and 715) to the Federal Energy Regulatory Commission (FERC) quarterly and annually (depending on the form). On January 17, 2019, FERC issued a Notice of Proposed Rulemaking (NOPR) about its *Revisions to the Filing Process for Commission Forms* (Docket No. RM19-12-000), announcing its intention to replace Forms 1, 3-Q, and 714 (collectively, the VFP Forms), and other forms that NYISO does not submit. The NOPR indicates that FERC and the North American Energy Standards Board intend to replace the existing format to eXtensible Business Reporting Language (XBRL) format because the current filing software at FERC has been out of support since April 2015.

The NYISO is still waiting for the final order from FERC and the final requirements are unknown, so this project is a continuation from 2020. This project will procure and install, or will create, software to enter and submit FERC Form 1 data in a new electronic format prescribed by FERC and NAESB.

3 NYISO Budget (Rate Schedule 1) Cost Recovery Update

The Management Committee will be voting in July 2020 to determine whether re-evaluation of the current NYISO Budget (Rate Schedule 1) cost allocation may be necessary due to anticipated market impacts resulting from current market design initiatives, such as, but not limited to, Energy Storage Resource Integration and Distributed Energy Resource Integration. This project is being proposed to provide for the possible outcome of a vote in favor of moving forward with a new cost of service study in 2020/2021. Upon completion of a study recommending changes to the cost allocation, and a vote to change the NYISO Budget (Rate Schedule 1) cost allocation accordingly, a project would be necessary to develop and implement those changes.

4 Transaction Modifications and Confirmation Tool

The Operations and Customer Settlements departments require development of a tool to assist in the validation of External Transaction schedules. Following the implementation of 15-minute and CTS scheduling protocols, existing forms will require a redesign to streamline use and

increase efficiencies within Operations to allow for continued prioritization of transactions for operational purposes. Customer Settlements currently uses several Web Form screens to gather and update External Transaction information as part of the settlements process. However, these screens (Transaction Confirmation, Transaction Modification, and Transaction Bids) were developed 15 years ago for NYISO Operations to process and schedule External Transactions, and do not provide all of the functionality required by Customer Settlements.

Operations and Customer Settlements requires their own set of screens, designed specifically for the purposes of each department. This will not only provide each department with the functionality that they currently need, but will also allow for future updates to be made for one department, without impacting the other.

5 Credit Price Spread Updates - Virtual & External Transactions

Credit requirements for Virtual and External Transactions rely on price differentials at the 97th percentile between the Energy price in the Day-Ahead Market and Real-Time Market. Price differentials are currently determined utilizing data from April 1, 2005 as set forth in the Services Tariff. To ensure credit requirements adequately cover market exposure, this methodology must be re-examined. This project would evaluate the appropriate timeframe of historical data to use to determine the price differentials used in both Virtual and External Transactions credit requirements.

6 Working Capital Application Enhancements

The existing Working Capital application facilitates an annual process to determine and adjust, if necessary, the contributions to the working capital fund from each customer during the year, using the formula described in Attachment V of the Open Access Transmission Tariff. The current software application lacks flexibility in making required adjustments and maintenance of historical information, which therefore requires manual external processes to occur outside of the application. This project would allow for modifications to the software to create greater efficiencies in processing.

7 Accounting and Settlements Integration

This project will integrate the NYISO accounting system, settlement system or both systems with the existing TCC invoicing process, Working Capital process, and the process for the collection and distribution for Rate Schedule 1. Because each of the TCC invoicing, Working Capital, and Rate Schedule 1 collection and distribution processes have been created and maintained independent of the NYISO accounting and settlement systems, each include manual processes to re-type and reconcile information between systems that do not automatically share/transfer information.

8 Minimum Oil Burn Enhancements

The NYISO Minimum Oil Burn program and procedures establish fuel switching requirements at certain cold weather thresholds to secure electric reliability in the event of gas pipeline contingencies. The current software program requires several manual processes to facilitate user registration and modification of associated program cost and rates. This project would develop new software and/or modifications to existing software to automate program registration and updates of the current cost and rates.

9 SDX API Pilot

This pursuit will focus on improving market participant interaction with the NYISO Settlements system. Specifically, it will reassess the current file-based upload/down methodology for daily reconciliation, metering, minimum oil burn event, and station services. This project will create a pilot test environment that supports industry standard RESTful API that seeks to replace the current file-based data exchange templates. The pilot environment will allow market participants to gain knowledge and provide feedback about the new capabilities.

10 Stakeholder Services Salesforce CRM Enhancements

This project will enhance the Customer Relationship Management (CRM) tool, which was implemented in 2017, to improve the NYISO's use of the Salesforce CRM tool and increase process efficiencies, thus providing improved opportunities for customer service. This project will focus on the implementation of the Stakeholder Services requirements that were documented and approved in 2020 as part of the B664 Customer Relationship Management (Salesforce CRM) Enhancements project.

Capacity Products

11 Demand Curve Reset Tool Updates

Every four years, the NYISO, along with its stakeholder community, conducts a comprehensive review to determine the parameters used in establishing the Installed Capacity (ICAP) Demand Curves. This process is referred to as the demand curve reset (DCR). To support the changes recommended by the DCR process, the NYISO must make updates to an internal DCR Tool used in support of the annual updates.

Energy Market Products

12 DAM Congestion Settlement Re-Allocation

The NYISO has a robust set of procedures and tools for performing the monthly DAM Congestion settlements specified in Attachment N of the OATT. A portion of this process is supported by outdated software that was developed in 2007 by an outside vendor. Maintaining this externally developed code is difficult and time-consuming and does not comport with the NYISO's IT application management process and standards. Creating an in-house replacement will improve application security and data integrity, ease of use, reliability of results, and improve the NYISO's ability to keep the underlying technologies of the application current.

13 Energy Market Software Performance

The EMS/BMS hardware upgrade provided a new platform for the market software that is expected to provide significant performance benefits. However, the NYISO has completed a number of complex market design efforts since the EMS/BMS project was initiated. Recent prototyping efforts by the NYISO and its vendors indicate that solve times will be unachievable in the future as the market design and resource mix become more complex. This project will implement opportunities to enhance market solution efficiency and will provide more information to the NYISO and its stakeholders about the benefits of potential enhancements.

Enterprise Products

14 ACC Control Room Renovations

The NYISO is proposing a multi-year project to renovate the Alternate Control Room located at the Carman Road facility in Guilderland. The primary business driver for this project is the need to eliminate the functional differences between NYISO's Primary and Alternate Control Rooms.

The Primary Control Room, located at the Krey Blvd facility in Rensselaer went on-line in November 2013. This new Control Room has state-of-the-art monitoring tools and situational awareness displays including a one-hundred cube Video Display Wall. In addition, the Operations' staff is strategically placed on the Control Room floor to most effectively facilitate critical communications. After five years of operating in the new Control Room, NYISO Operations staff depend on the enhanced tools and staff configuration to most efficiently operate the Bulk Electric System.

When Operational Control is moved to the Alternate Control Room, the functional differences between the two Control Rooms can present some challenges to NYISO's Operations Staff. Commissioned in 1969, the Alternate Control Room utilizes technology and systems from that era that are significantly different from today's state-of-the-art systems. This project will eliminate the functional differences between the two Control Rooms. The result will be the same monitoring tools, situational awareness displays and lines of communication in both Control Rooms.

15 Access Management

This project will continue to improve access management (AM) controls for cyber systems and physical facilities. The AM 2021 project builds upon the completed deliverables from earlier AM project phases. This phase seeks to further extend automated provisioning capabilities and implement infrastructure upgrades for enhanced security and improved system availability.

16 Application Platform Upgrade

This project is a continuation of a multi-year effort to replace aging server infrastructure and migrate to a new application platform standard. This technology lifecycle project is necessary to ensure the ongoing availability of security patches and vendor support for critical systems.

17 Database Upgrade

This project is a continuation of a multi-year effort to upgrade the NYISO's database systems to the latest Oracle version to improve the overall performance of critical databases. This technology lifecycle project is necessary to ensure the ongoing availability of security patches and vendor support for critical systems.

18 IT Infrastructure Automation

The focus of this continuing, multi-year effort is on increasing automation of various IT management activities. By enhancing the NYISO infrastructure, with supporting processes and current and prospective tools, the NYISO will be increasingly responsive in supporting the frequency of change required by the business. Automation of activities, such as patching and upgrade processes, will also serve to improve the NYISO's security posture while reducing business impact of services.

19 IT Service Management Improvements

IT Service Management (ITSM) refers to the activities performed to design, plan, deliver, operate, and control the IT services offered to the NYISO business. A properly implemented ITSM solution increases the speed, cost-efficiency, and effectiveness of IT services; reduces and helps prevent

IT incidents; enables employees to be more productive; and reduces risk by enforcing compliance regulations. This project aims to replace NYISO's legacy ITSM tool, which is approaching its end-of-support date, with a modern solution that will provide these benefits and continue to support NYISO's SOC 1 controls and NERC CIP requirements.

20 Network Infrastructure Upgrade

Key hardware for delivering networking services to NYISO end-users, business units, and external customers is entering the vendor-mandated end-of-life state. As a result, the NYISO will no longer receive necessary security patches to mitigate new cyber risks and/or software bugs once that threshold has been passed.

This project is a continuation of a multi-year effort to continue replacing outdated hardware with the objective of providing secure service delivery while modernizing and streamlining the NYISO's data centers in accordance with current industry best practices and vendor recommendations.

21 2021 NERC CIP Audit

The NYISO is obligated to comply with numerous mandatory physical and cyber security Critical Infrastructure Protection (CIP) reliability standards set for the by the North American Electric Reliability Corporation (NERC).

As part of a planned triennial cycle, the NYISO's CIP program will be formally audited by Northeast Power Coordinating Council (NPCC), the regional entity responsible for monitoring NYISO compliance with NERC standards, in Q4 of 2021. Additionally, NERC has modified its audit format to facilitate a parallel audit of all NERC Reliability Standards (CIP, Operations & Planning). This project will provide resources for the NERC CIP audit preparation (for all enforceable Standards), including a mock audit, to ensure preparedness.

22 Linux and Storage Infrastructure Refresh

The Linux and Storage Infrastructure used to store NYISO data and application run-time environments for critical systems is reaching its end of life. This project will upgrade this infrastructure prior to support expiring.

23 Ringdown Service Replacement

The NYISO Operations Control Rooms utilize a Ringdown communication architecture. The "Ringdown" service is a direct (point-point) phone service used to communicate between other control areas and Transmission Owners. This is currently provided by telecommunications carriers as a legacy service that is no longer offered but still maintained by the carriers and is delivered to NYISO on aging equipment that has had frequent and at times long duration outages.

While no official date has been provided yet, one of these carriers have provided notice that they will be discontinuing this service in the near future.

NPCC Telecommunications Working Group (IST-2) has drafted a white paper with the objectives of providing guidance for evolving technology as replacement for the aging Ringdown service. This project will evaluate options and design a replacement for the current services.

24 Unified Communications Platform

The current telecommunications platform is beyond its technology support lifecycle and creates substantial limitations in the NYISO's ability to provide further integration with other services and to offer new functionality to the organization. This project will begin a multi-year effort to evaluate alternative solutions and replace the current systems with a new modern unified communications platform.

25 Windows System Upgrade

This project is a multi-year effort to upgrade NYISO's aging Windows Systems. Included in the effort will be the replacement of NYISO laptops that have reached end-of-life (out of warranty support starting in October 2020) and other supporting systems. This technology lifecycle project is necessary to maintain system performance and availability, as well as ensure ongoing vendor support for critical systems.

26 Application Security Enhancements

This is a multi-faceted effort for the NYISO to meet the challenge to continuously maintain the security of its applications and improve the features and functionality of its tools related to security.

27 Gurobi (MIP) Migration and Upgrade

The mathematical problem for solving the unit commitment and dispatch optimization is formulated using a Mixed-Integer Programming (MIP) technique. The NYISO utilizes a commercial product solution engine, Gurobi, in its software to solve this problem. Major new releases of this product that include performance improvements and resiliency features occur every two to three years. To take full advantage of the new features, the NYISO must upgrade the hardware the Gurobi software runs on. Additionally, the NYISO must upgrade the Gurobi versions periodically to maintain support from the vendor. In 2020, the NYISO is testing updated Gurobi software on updated hardware to determine performance and resiliency feature improvements with the expectation that in 2021 the NYISO will have a project to upgrade Gurobi.

28 Web Content Management System Upgrade

NYISO.com is a mission-critical business operations system used to support our transparent, shared governance process and support operations overall. It is delivered via a Web Content Management platform put into place with the 2018 website redesign project and is moving to limited support in June 2020. Maintaining this platform will allow the NYISO to continue to provide dynamic response to 24-hour news cycles, changing conditions, and crisis communications with minimal developer intervention. It is essential technology infrastructure for delivering on and the NYISO's mission as a technology leader, an authoritative source of information.

29 UPS Replacement

The NYISO is proposing a multi-year project to replace the two Uninterruptible Power Supply (UPS) Systems located at the Krey Boulevard facility in Rensselaer. These UPS systems provide "clean" power (i.e. power which is free of electrical noise and voltage spikes and drops) to all mission critical loads including the Primary Control Room and Data Center.

To provide full redundancy, the systems are in a 2N configuration, meaning that the each unit individually can support all mission critical equipment. Therefore, if one unit is taken out of service for whatever reason, the second unit can serve the full mission critical electric load.

The existing UPS systems were installed in 2006 when NYISO first moved into the building at 10 Krey Blvd. In 2021, the units will be fifteen (15) years old, end-of-life and will need to be replaced.

Operations & Reliability Products

30 Automated Default Bid Mitigation

If a generator fails both a conduct and impact test for withholding, MMA is required to apply the appropriate mitigation measure to that generator. One remedy described in the mitigation measures requires the generator to bid consistent with default bid for a defined time period. Currently, MMA manually monitors bids during the default bid mitigation period, but there is no mechanism to systematically enforce the mitigation. This project seeks to modify existing mitigation software routines and implement software changes to ensure that generator bidding conforms to the default bid mitigation requirements during the mitigation period.

31 Load Forecasting System Upgrade and Build Out

This is project would upgrade the NYISO's Load Forecasting application to replace aging hardware and upgrade to the latest software release. This technology lifecycle project is necessary to provide the ongoing availability of security patches and vendor support for critical systems. In addition, this project would build out a new product development environment.

32 Transmission and Generation Scheduling System (TAGSS)

The NYISO currently runs applications developed by a third-party vendor—TOA (Transmission Outage Application) and the iTOA (latest version of the TOA software)– for transmission and generation outage scheduling. TOA is used internally only to facilitate coordination of NYISO approval of transmission and generator outages requested by TOs (Transmission Owner) and GOs (Generation Owner), and outage reporting. iTOA, an interface used by GOs and TOs, is used externally only.

The dated platform of TOA and iTOA presents a growing technical risk to the NYISO and limits the NYISO's ability to implement new functionality. The NYISO is evaluating replacement options for TOA and iTOA. The project objective is to replace the TOA and iTOA applications with a new application.

33 NextEra Transmission Owner Integration

The NYISO, along with regulators, recently approved the Empire State Line proposal by NextEra Energy to build a new 345 kV transmission line and switchyard in Zone A in Western NY and upgrades and expansions to existing transmission facilities. The project is planned to be in service by June 2022. This project will consist of requirements definition, development, build-out, and testing of required changes to support the integration with NextEra in 2021 to meet the in service date in 2022.

34 EMS Visualization Native PI Viewer – Interface and Event Tool

The NYISO currently uses remote virtual machines to manipulate and render PI displays for screen scraping to the video wall. Through feedback provided by NYISO in 2013-2014, the video wall vendor has created an add-on to their product that allows native rendering, manipulation, and automation of PI displays. This feature will remove the need for additional Virtual Machines and the associated cumbersome user interaction for Operations and provide opportunities for faster PI display call-ups in response to system conditions and events.

35 EMS/BMS Operational Enhancements

The NYISO completed a multi-year project in 2020 to upgrade both the Energy Management System (EMS) and the Business Management System (BMS). The EMS encompasses the core reliability functions used by the system operators such as load flow and contingency analysis. The BMS encompasses the day ahead and real time energy market functionality. In 2020, the NYISO kicked off the EMS/BMS Operational Enhancements Project to implement additional functional enhancements that have been identified as post go-live changes; this project is a continuation of this effort and will implement the remaining enhancements not completed in 2020.

36 Grid Guardian Network Topology Feature Implementation

The Primate EMS Visualization software currently provides redundancy to the EMS through the use of Phase 1 metering. Network topology is not currently able to be supported independently, should the EMS become unavailable. The purpose of this project is to implement a grid resiliency product, which allows network topology to be entered and reflected on Primate Displays during periods of EMS unavailability. Additionally, displays will be updated with latitude/longitudinal information to allow geographic alarming.

37 Natural Gas Notices Enhancement Project

The NYISO receives email notifications from natural gas pipelines and local distribution companies ranging from informational postings, planned outage data, capacity constraints, Operational Flow Orders, force majeure, interruption of service notices, etc. These notices contain a significant amount of information but are often cumbersome to process and quickly obtain relevant information for real time operations. This project would enhance NYISO Grid Ops situational awareness of critical, real time gas notices by developing a system for managing the notices and providing relevant information to the NYISO operators.

38 IT Development and Control of Compliance Reports

The NYISO's Market Mitigation and Analysis Department (MMA) currently uses a number of reports, dashboards, and screens to comply with Services Tariff Attachment H provisions. Some of these tools are not maintained by the IT Department. MMA has also identified areas for improvement to existing reports and the need for new reports. This project would have IT take over and maintain controlled versions of preexisting reports, dashboards, and screens and develop new screening tools.

39 LFDR Upgrade and Enhancements

The Load Forecasting Data Repository (LFDR) is currently the real-time "flight recorder" for the NYISO's operational load forecasting system. Along with being the data warehouse for both real-time (*i.e.* 5-min) and day-ahead (*i.e.* hourly) demand forecast information, the LFDR also serves as the long term archive for weather and behind-the-meter (BTM) solar forecasting and distributed inverter-based solar generation. The LFDR base system will no longer be supported by the vendor in 2022. NYISO is currently evaluating a migration path to an alternate data warehouse platform. This project will examine both migrating the LFDR to a new platform and expanding the LFDR's capabilities to include archiving of key economic data sets, and BTM distributed energy resource data (*e.g.* electric vehicles, fuel-cells, energy storage, and others).

40 Demand Forecasting Operational Reporting Enhancements (SAS)

Some of the current processes for creating daily (*e.g.* day-ahead and real-time forecast verification) and monthly (*e.g.* annual energy budget tracking, weather/DER data validation) forecasting reports require the manual updating of SAS programs and Excel spreadsheets. This project would introducing additional automation into the current extract-transform-load and data visualization processes. Such automation would enable the Demand Forecasting and Analysis Department to better serve the internal and external stakeholders who rely on these reports and post-processed data sets to inform operational, financial, and comprehensive system planning processes.

41 ePlanning Migration

FERC Order 890 requires NYISO to have a collaborative system to facilitate information sharing and commenting on planning studies. The current system involves several manual processes to administer users and sharing of Interconnection planning studies. This project would replace the current Microsoft SharePoint system with a new solution to provide secure access to authorized users to collaborate on planning studies.

In addition, this project will enhance the Interconnection Projects Community, which was implemented in 2019. The goal of these enhancements is to provide additional functionality and processes for expanded use of the Interconnection Portal to suit the needs of the System and Resource Planning department.

42 Dynamic Modeling Database Enhancements

Currently NYISO performs the NERC MOD-32, MOD-026 and MOD-027 standards and NYSRC I4 requirements to review and update the dynamic data of the Generators in the New York Control Area on an annual basis. The validation and accuracy of the dynamic data are critical, as this information is used in developing the Dynamics Base cases which is used by the various departments in Planning and Operations Engineering, external stakeholders including Transmission Owners, Developers etc. At present the NYISO meets these requirements using an extensive manual process that includes sending 400 emails to the Generator Owners (GOs) and maintaining the dynamics data Microsoft Excel and Word formats. The NYISO has 760 generating units in its system, and maintaining the dynamics modeling data for such a large number of generators in Word and Excel documents is time consuming and inefficient. This manual processing of data requires significant resources in terms of work hours and each manual update and transfer of data represents an opportunity for error.

In addition, with the increase in the penetration of Distributed Energy Resources (DERs) in the system, modeling the dynamic behavior of the DERs becomes critical and essential to analyze the reliability of the system. Maintaining the dynamic data will require a higher level of effort and complexity as an increased number of generators and DERs connected to the NYISO system.

TCC Products

43 TCC Auction Billing

The current billing process for TCC Auctions requires significant coordination between the TCC Market Operations and Accounting Departments. There are multiple manual processes in order to complete the invoicing and payments for TCC Auction results. This project will provide integration of TCC Auction billing data from the NYISO TCC Automated Market System to the NYISO Consolidated Invoice module, which will align the TCC Auction billing with the invoicing process and timelines associated with other NYISO market transactions.