



UG 04

Settlement Data Applications User's Guide

Issued: December 2024

Version: 6.4

Effective Date: 12/05/2024

Recertified: 12/05/2024

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Revision History

Version	Effective Date	Revisions
1.0	10/10/2007	<p>Copyright Page</p> <ul style="list-style-type: none"> ➤ Copyright date updated to 2007. <p>Section 2.3</p> <ul style="list-style-type: none"> ➤ Page 2-9: replaced QUERY_TYPE with BID_TYPE in the Response File: Header Detail section. ➤ Removed grouped unit text that is not applicable to template, added note for MA users to #2 and #3. ➤ Request File: Header Detail – updated SUBZONE_PTID, METER_VERIFICATION variables. <p>Section 2.5</p> <ul style="list-style-type: none"> ➤ Page 2-20: added date & hour to the Response File – Data Detail section. <p>Section 3</p> <ul style="list-style-type: none"> ➤ Updated listing of error messages. <p>Sections 4.1.1 and 4.1.2</p> <ul style="list-style-type: none"> ➤ Removed references to multiple Subzone selection and replaced screen pictures. <p>Section 4.1.2</p> <ul style="list-style-type: none"> ➤ Added text for the Gen/Tie (MWh) column. <p>Section 4.1.3</p> <ul style="list-style-type: none"> ➤ Added detail for the Gen/Tie report option. <p>Section 4.1.4</p> <ul style="list-style-type: none"> ➤ Added detail for the Subzone report option.
1.1	03/18/2008	<p>Sections 2.2 and 2.4</p> <ul style="list-style-type: none"> ➤ Added REQUEST_ID to the request file, the response file, and example 1 for the tie_gen_subzone_data and load_bus_hour_data templates. <p>Section 2.5</p> <ul style="list-style-type: none"> ➤ Removed hour and minutes from the billing date field on example 1. <p>Section 2.8.1</p> <ul style="list-style-type: none"> ➤ Added detail for station power data availability. <p>Section 3.0</p> <ul style="list-style-type: none"> ➤ Added new error codes.
2.0	09/05/2008	<p>Section 2.11</p> <ul style="list-style-type: none"> ➤ Added Generator Availabilities download. <p>Section 2.12</p> <ul style="list-style-type: none"> ➤ Added Generator PTS Results download. <p>Section 2.13</p> <ul style="list-style-type: none"> ➤ Added Minimum Oil Burn Overview and Upload/Download templates.

		<p>Section 3.0</p> <ul style="list-style-type: none"> ➤ Updated listing of error messages.
3.0	04/06/2009	<p>Global</p> <ul style="list-style-type: none"> ➤ Reformatted per new template to standardize presentation. ➤ Implemented minor stylistic changes. ➤ Standardized labeling and numbering of graphical material. <p>Revision History Table</p> <ul style="list-style-type: none"> ➤ Changed column headings as follows: <ul style="list-style-type: none"> • “Revision” changed to “Version.” • “Changes” changed to “Revisions.” ➤ Arranged versions in reverse chronological order and section entries in ascending order. <p>Section 4.1.2, 4.1.3</p> <ul style="list-style-type: none"> ➤ Added LESR detail for Subzone Load Detail and Gen/Tie Detail Reports. <p>Section 3</p> <ul style="list-style-type: none"> ➤ Added LESR Upload and Download error messages. <p>Section 2.14</p> <ul style="list-style-type: none"> ➤ Added LESR Upload and Download templates. <p>Section 2.4</p> <ul style="list-style-type: none"> ➤ Clarified that positive, negative, and 0 values supported for LOAD_BUS_HOUR_DATA template. <p>Section 2.2, 2.3</p> <ul style="list-style-type: none"> ➤ Clarified that LESR generators do not use the TIE_GEN_SUBZONE_DATA, TIE_GEN_SUBZONE_DETAIL templates. <p>Section 2.1.2</p> <ul style="list-style-type: none"> ➤ Updated SDX Upload/Download screen display.
3.1	01/12/2010	<p>Global</p> <ul style="list-style-type: none"> ➤ Updated links to and screenshots of the NYISO Web site to reflect changes secondary to the site's redesign. <p>Section 2.1.3</p> <ul style="list-style-type: none"> ➤ Revised to update <i>SDX User's Guide</i> access instructions secondary to NYISO Web site redesign. <p>Section 2.2</p> <ul style="list-style-type: none"> ➤ In examples, revised format for date and time to reflect MM/DD/YYYY and HH24:MM, respectively. <p>Section 2.4</p> <ul style="list-style-type: none"> ➤ In examples, revised format for date and time to reflect MM/DD/YYYY and HH24:MM, respectively. <p>Section 2.13.2</p> <ul style="list-style-type: none"> ➤ In first example, revised format for date and time to reflect MM/DD/YYYY and HH24:MM, respectively. <p>Section 2.13.3</p>

		<ul style="list-style-type: none"> ➤ In first example, revised format for date and time to reflect MM/DD/YYYY and HH24:MM, respectively. <p>Section 2.13.4</p> <ul style="list-style-type: none"> ➤ In the example, revised format for date and time to reflect MM/DD/YYYY and HH24:MM, respectively. <p>Section 2.14.1</p> <ul style="list-style-type: none"> ➤ In Request File example, revised time format to reflect HH24:MM.
4.0	12/20/2010	<p>Section 2.1</p> <ul style="list-style-type: none"> ➤ Added new section 2.1.4 Daily Reconciliation Web Page. <p>Section 2.13.2</p> <ul style="list-style-type: none"> ➤ Added an additional bullet to the "Additional Notes" Section.
5.0	8/11/2011	<p>All Applicable Sections</p> <ul style="list-style-type: none"> ➤ Changed references from SDX User's Guide to new document name, Settlement Data Applications User's Guide. ➤ Replaced screen shots applicable with the B210 Consolidated Invoice Redesign project. ➤ Updated Metering Authority to Meter Authority <p>Section 1 and sub sections</p> <ul style="list-style-type: none"> ➤ Added information for all applications included in document. ➤ Moved NYISO user guide web page to Section 1. <p>Section 2.7</p> <ul style="list-style-type: none"> ➤ Deleted Invoice History template. <p>Sections 2.8 and 2.9</p> <ul style="list-style-type: none"> ➤ Added note specifying returned data set <p>Sections 2.12</p> <ul style="list-style-type: none"> ➤ Updated Tariff reference <p>Section 4</p> <ul style="list-style-type: none"> ➤ Added details and new screen shots for CSI including the Invoice Summary and all of the Invoice Detail reports. ➤ 4.1 - added new section for system requirements. ➤ 4.3.1 - updated Version definition for daily reconciliation query ➤
5.1	8/25/2011	<p>Section 1.3</p> <ul style="list-style-type: none"> ➤ Replaced Market Access Login screen shot <p>Section 1.4</p> <ul style="list-style-type: none"> ➤ Replaced NYISO Manuals & Guides screen shot
5.2	12/14/2011	<p>Section 1</p> <ul style="list-style-type: none"> ➤ Added ICAP Detail report to CSI reference <p>Section 4.2.1</p> <ul style="list-style-type: none"> ➤ Updated figures 4-4, 4-5 <p>Section 4.2.2.5</p> <ul style="list-style-type: none"> ➤ ICAP Detail Report - new section

5.3	2/28/2012	<p>Section 1</p> <ul style="list-style-type: none"> ➤ Added Bad Debt Loss Detail report to CSI reference <p>Section 4.2.1</p> <ul style="list-style-type: none"> ➤ Updated figures 4-4, 4-5 <p>Section 4.2.2.6</p> <ul style="list-style-type: none"> ➤ Bad Debt Loss Detail Report - new section <p>Section 5</p> <ul style="list-style-type: none"> ➤ Renamed title. Deleted content as it was outdated. Added reference to Market Participant User's Guide (MPUG) for current information <p>Section 6</p> <ul style="list-style-type: none"> ➤ Deleted section as content was outdated. Current information is included in the MPUG
5.4	5/14/2012	<p>Section 4, 4.2, 4.3, 4.4, 4.5, 4.6, 4.7</p> <ul style="list-style-type: none"> ➤ Updated figures, corresponding references and screen displays
5.5	10/29/2013	<p>Section 2.1.1</p> <ul style="list-style-type: none"> ➤ Updated Figure 2-1 <p>Section 2.10</p> <ul style="list-style-type: none"> ➤ Removed Download Template for Generator Availabilities <p>Section 2.10 (Renumbered)</p> <ul style="list-style-type: none"> ➤ Added and Removed fields from Download Template for Generator PTS Results; updated the example to reflect the changes
5.6	10/31/2014	<p>Section 2.1.1</p> <ul style="list-style-type: none"> ➤ Added clarification on dates in which data may be downloaded <p>Section 4.2.1</p> <p>Added clarification on dates in which data may be queried</p>
5.7	10/29/2015	<p>Section 4.2.2.3</p> <ul style="list-style-type: none"> ➤ Updated Adjustment Detail Report screenshot
5.8	04/25/17	<p>Section 2.7.1</p> <ul style="list-style-type: none"> ➤ Updated data row content description for RS1 Net Annual Budget Charge and RS1 FERC Fee Charge
5.9	06/28/2018	<p>Section 3</p> <ul style="list-style-type: none"> ➤ Added error messages
6.0	01/28/2019	<p>Global</p> <ul style="list-style-type: none"> ➤ Updated URL's, location names, and screen displays resulting from NYISO public website redesign <p>Section 1.2</p> <ul style="list-style-type: none"> ➤ Added clarification
6.1	02/18/2020	<p>Copyright Page</p> <ul style="list-style-type: none"> ➤ Copyright date updated to 2020 <p>Global</p> <ul style="list-style-type: none"> ➤ Updated location names and screen displays resulting from NYISO corporate logo redesign

		<ul style="list-style-type: none"> ➤ Updated dates and figures in Request File and Response File examples Section 2.2, 2.3, ➤ Modified content to address dual-channel generators ➤ Corrected order of fields in Response File – Data Detail (2) table when SZ_SUM is returned <p>Section 2.4</p> <ul style="list-style-type: none"> ➤ Clarified the allowable upload parameter for all hours and added the maximum upload data rows ➤ Removed duplicate paragraph <p>Section 2.7.1</p> <ul style="list-style-type: none"> ➤ Removed note regarding Version 0 <p>Section 2.10</p> <ul style="list-style-type: none"> ➤ Modified data row heading components to accommodate ESR project change <p>Section 2.12</p> <ul style="list-style-type: none"> ➤ Modified content to incorporate dual-channel generators <p>Section 3</p> <ul style="list-style-type: none"> ➤ Expanded parameters for SDX-10015 error message ➤ Deleted SDX-20025 error message ➤ Added SDX-10020 for password expiration ➤ Deleted SDX-20015 error message ➤ Updated SDX-20018 message content ➤ Added SDX-20026 error message ➤ Added SDX-20210 for ESR project ➤ Added SDX-20713 error message ➤ Updated SDX-20801 to reflect decimal precision introduced with ESR project ➤ Updated SDX-20802 to reflect decimal precision introduced with ESR project ➤ Modified SDX-20803 to include participating ESR generator ➤ Modified SDX-20804 to include participating ESR generator <p>Section 4.7.1.2</p> <ul style="list-style-type: none"> ➤ Modified narrative to differentiate between single channel and dual channel generators ➤ Modified reference to column heading names introduced with ESR project <p>Section 4.7.1.3</p> <ul style="list-style-type: none"> ➤ Modified narrative to differentiate between single channel and dual channel generators ➤ Modified reference to column heading names introduced with ESR project ➤ Replaced Figure 34 with updated error message introduced with ESR project
6.1	01/27/2021	Recertified with no revisions

6.2	06/08/2021	<p>Section 2.10</p> <ul style="list-style-type: none"> ➤ Modified reference to column heading name introduced with Large Scale Solar On Dispatch project
6.2	12/05/2022	Recertified without revisions
6.3	09/08/2023	<p>Global</p> <ul style="list-style-type: none"> ➤ Updated throughout to correct spacing and formatting of text. <p>Section 2.2</p> <ul style="list-style-type: none"> ➤ Added narrative which excludes Distributed Energy Resource (DER) Aggregations, including Single-Resource Type (SRT) Aggregations from using the TIE_GEN_SUBZONE_DATA upload template. <p>Section 2.3</p> <ul style="list-style-type: none"> ➤ Added narrative that excludes Distributed Energy Resource (DER) Aggregations, including Single-Resource Type (SRT) Aggregations from using the TIE_GEN_SUBZONE_DATA download template. ➤ Removed Meter Verification download and all associated references, data fields, and examples. ➤ Updated Response File – Data Detail to align data field naming conventions with CSI. <p>Section 2.6</p> <ul style="list-style-type: none"> ➤ Added narrative to indicate that Distributed Energy Resource (DER) Aggregations, including Single-Resource Type (SRT) Aggregations are included in the Meter Authority calculated subzone load. ➤ Updated Response File – Data Detail to align data field naming conventions with CSI. <p>Section 2.10</p> <ul style="list-style-type: none"> ➤ Updated Response File – Data Detail to align data field naming conventions with CSI. <p>Section 2.12</p> <ul style="list-style-type: none"> ➤ Added narrative that excludes Distributed Energy Resource (DER) Aggregations, including Single-Resource Type (SRT) Aggregations from using the DUAL_CHANNEL_GEN_DATA upload template. ➤ Updated Response File – Data Detail to align data field naming conventions with CSI. ➤ Updated page footer to align data field naming conventions with CSI. <p>Section 2.3</p> <ul style="list-style-type: none"> ➤ Added narrative that excludes Distributed Energy Resource (DER) Aggregations, including Single-Resource Type (SRT) Aggregations from using the DUAL_CHANNEL_GEN_DETAIL download template. ➤ Updated Response File – Data Detail to align data field naming conventions with CSI. ➤ Updated page footer to align data field naming conventions with CSI. <p>Section 3</p> <ul style="list-style-type: none"> ➤ Deleted SDX-2016 error message. ➤ Added SDX-20812 error message to reflect that Distributed Energy Resource (DER) Aggregations, including Single-Resource Type (SRT) Aggregations are not authorized to use SDX for upload/download of meter data.

		<p>Section 4.7.1.1</p> <ul style="list-style-type: none"> ➤ Added narrative to indicate that Distributed Energy Resource (DER) Aggregations, including Single-Resource Type (SRT) Aggregations are included in the Meter Authority calculated subzone load. ➤ Updated Calculated Subzone Load Results page to show changes to column header labels. <p>Section 4.7.1.2</p> <ul style="list-style-type: none"> ➤ Updated data field naming conventions to align with CSI. ➤ Added narrative to reflect what value is displayed in the MA Reported MWh column. ➤ Added narrative describing how DER Aggregation, including Single-Resource Type (SRT) Aggregation data is populated in the Subzone Load Detail page. ➤ Updated Subzone Load Detail Results page to show changes to column header labels. <p>Section 4.7.1.3</p> <ul style="list-style-type: none"> ➤ Updated Gen/Tie Detail page to show changes to the query screen. ➤ Added narrative to reflect that DER Aggregations, including Single-Resource Type (SRT) Aggregations are included in the query search. ➤ Added narrative to reflect how MWh values are displayed for Dual channel generator data. ➤ Added narrative describing how DER and Single-Resource Type (SRT) Aggregation data is populated in the Gen/Tie Detail page. ➤ Updated Gen/Tie Detail Results page to show changes to column header labels.
6.4	12/05/2024	Recertified

1. Introduction

The Settlement Data Applications described in this User's Guide include the following:

- Settlement Data Exchange (SDX) Upload and Download Templates
 - upload and download query functions supporting metering reconciliation (hourly tie line, generation, subzone, and load bus data)
 - assumes prior knowledge in using the NYISO Market Information System (MIS) upload/download batch procedures. For information on the NYISO MIS, and the relevant authorization and Digital Certificate requirements, please refer to the NYISO *Market Participant User's Guide (MPUG)*, available from the NYISO Web site at <https://www.nyiso.com/documents/20142/3625950/mpug.pdf>. For additional information relating to the upload/download process, please refer to Section 8 of the *MPUG*.
- Customer Settlements Interface (CSI)
 - Consolidated Invoice Reports (Invoice Summary, Invoice Detail, Adjustment Detail, Prepay Detail, ICAP Detail, Bad Debt Loss Detail)
 - Daily Reconciliation
 - Global Rates
 - TSC/NTAC Rates
 - Working Capital
 - Metering Reconciliation (Calculated Subzone Load, Subzone Load Detail, Gen/Tie Detail, Wholesale Load Bus Detail)
- Bidding and Scheduling Administrator Web Pages for Metering Reconciliation
 - Metering Generators
 - Metering Loads
 - Metering Ties
 - Metering Subzones

1.1 User Account Overview

The NYISO MIS provides Market Participants (MPs) with significant flexibility in establishing user accounts to meet the specific needs of each organization. The types of actions allowed have been developed over time with input from MPs. The Settlement Data Applications user accounts are built on top of the MIS and offer similar flexibility to what has been offered in the other areas. Understanding some of the basics will help an MP establish a plan for how it wants to manage its account.

Each of the Meter Authorities (MA) (as defined in the *Revenue Metering Requirements Manual*, available at <https://www.nyiso.com/manuals-tech-bulletins-user-guides>) has a Meter Authority Administrator. The MA Administrator manages for the MP, the reporting and/or analysis of the metered data reported to the NYISO. The Meter Authority Administrator¹ responsible for establishing accounts should understand the following points:

- The individual accounts are configured and maintained by their Meter Authority Administrator(s) (individuals within their own company) via screens on the NYISO Marketplace (refer to Section 6 of the *Market Participants User's Guide (MPUG)*, available from the NYISO Web site at the following URL:

<https://www.nyiso.com/documents/20142/3625950/mpug.pdf>.

Users need to be authorized by their Meter Authority Administrator(s) to access specific items such as gens, ties, and loads to see data.

Users must be authorized to submit various types of data such as meter data. In order to submit meter data, users need authorizations for both submitting the meter data, and for the gen, tie, or load for which the data is submitted.

The permissions established for users support Bidpost (upload/download), Marketplace (Web pages) and Customer Settlements Interface (Web pages).

¹ **Meter Authority Administrator** – Individual or Individuals authorized by their Meter Authority to submit and/or access metering data.

1.2. Meter Authority Administrator Account Configuration and Management

The following list includes recommendations for Account Configuration and Management:

1. The Meter Authority Administrator will establish an account for upload/download that will not be shared with anyone and will only be used by the organization's automated program. The Meter Authority Administrator will assign the account with each of the ties, gens, and loads authorized to their organization, and check the "Submit Meter Data" authorization flag. The NYISO has configured which ties, gens, subzones, and loads belong to which MAs.
2. For each Web user, the Meter Authority Administrator will create an individual account authorized to their subzones with the "Submit Meter Data" flag checked. No ties, gens, or loads are authorized in this example.
3. If these Web users have an account so that they can verify the subzone load in item 2 above, then that account will allow them to see all tie, gen, and subzone data such that no additional account authorizations are needed. As these accounts have the "Submit Meter Data" authorization flag turned on, the accounts are not required to be authorized to any gens or ties. If the Web user does not already exist, the Meter Authority Administrator will create an individual account authorized to their subzones. If it is only specific gens or ties the user should see, they would be authorized to a subset of the list by the Meter Authority Administrator.
4. For each Web user, the Meter Authority Administrator will create an individual account authorized to the loads or subset of loads they should be able to see. If this was created under item 3 (not item 2 to verify subzone load) to see ties, gens, and subzone data, then the loads can be added and the user will have one account. If this user was created under item 2, then a second account would need to be provided.
5. The MIS maintains individual user accountability on accounts provided the users do not share them. There is no way for the NYISO to ensure that users are not sharing accounts, but the NYISO encourages MAs to put into place their own policies against this.

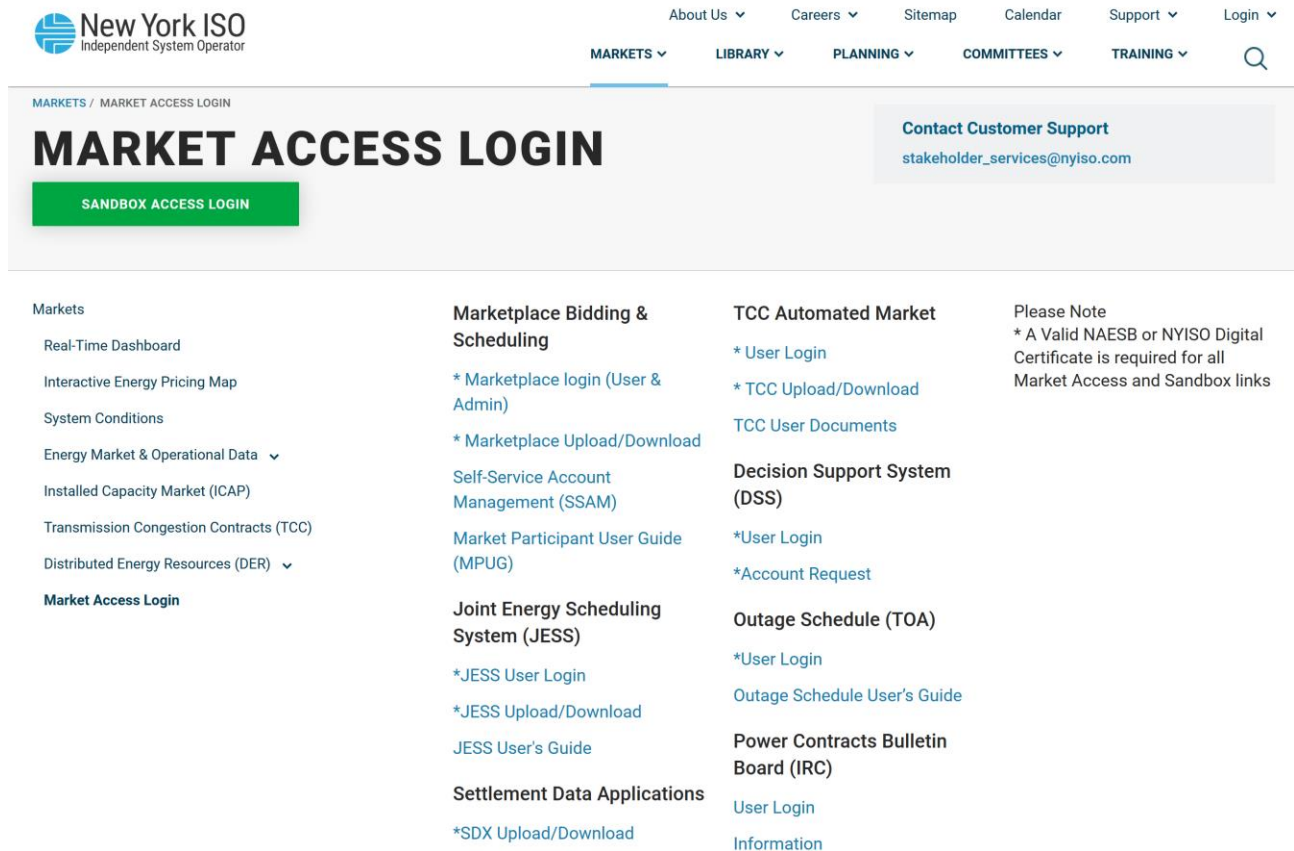
1.3. Market Access Login Web Page

All users may access the NYISO’s Bidding and Scheduling Web address:

<https://www.nyiso.com/market-access-login>

From this page, users will find access to the Settlement Data Application links.

Figure 1: Market Access Login Web Page



MARKET ACCESS LOGIN

[SANDBOX ACCESS LOGIN](#)

Contact Customer Support
stakeholder_services@nyiso.com

Markets

- Real-Time Dashboard
- Interactive Energy Pricing Map
- System Conditions
- Energy Market & Operational Data
- Installed Capacity Market (ICAP)
- Transmission Congestion Contracts (TCC)
- Distributed Energy Resources (DER)
- Market Access Login**

Marketplace Bidding & Scheduling

- * Marketplace login (User & Admin)
- * Marketplace Upload/Download
- Self-Service Account Management (SSAM)
- Market Participant User Guide (MPUG)

Joint Energy Scheduling System (JESS)

- *JESS User Login
- *JESS Upload/Download
- JESS User's Guide

Settlement Data Applications

- *SDX Upload/Download

TCC Automated Market

- * User Login
- * TCC Upload/Download
- TCC User Documents

Decision Support System (DSS)

- *User Login
- *Account Request

Outage Schedule (TOA)

- *User Login
- Outage Schedule User's Guide

Power Contracts Bulletin Board (IRC)

- User Login
- Information

Please Note
* A Valid NAESB or NYISO Digital Certificate is required for all Market Access and Sandbox links

2. Using SDX Upload/Download Templates

2.1. Web Access to the Upload/Download Templates

A Universal Resource Locator (URL) is available for all Settlement Data Exchange (SDX) upload and download templates. All of the SDX upload and download templates are included in this user guide. All other NYISO templates are documented in the *Market Participants User's Guide (MPUG)*, available from the NYISO Web site at the following URL:

<https://www.nyiso.com/manuals-tech-bulletins-user-guides>

2.1.1. SDX Upload and Download Web Page

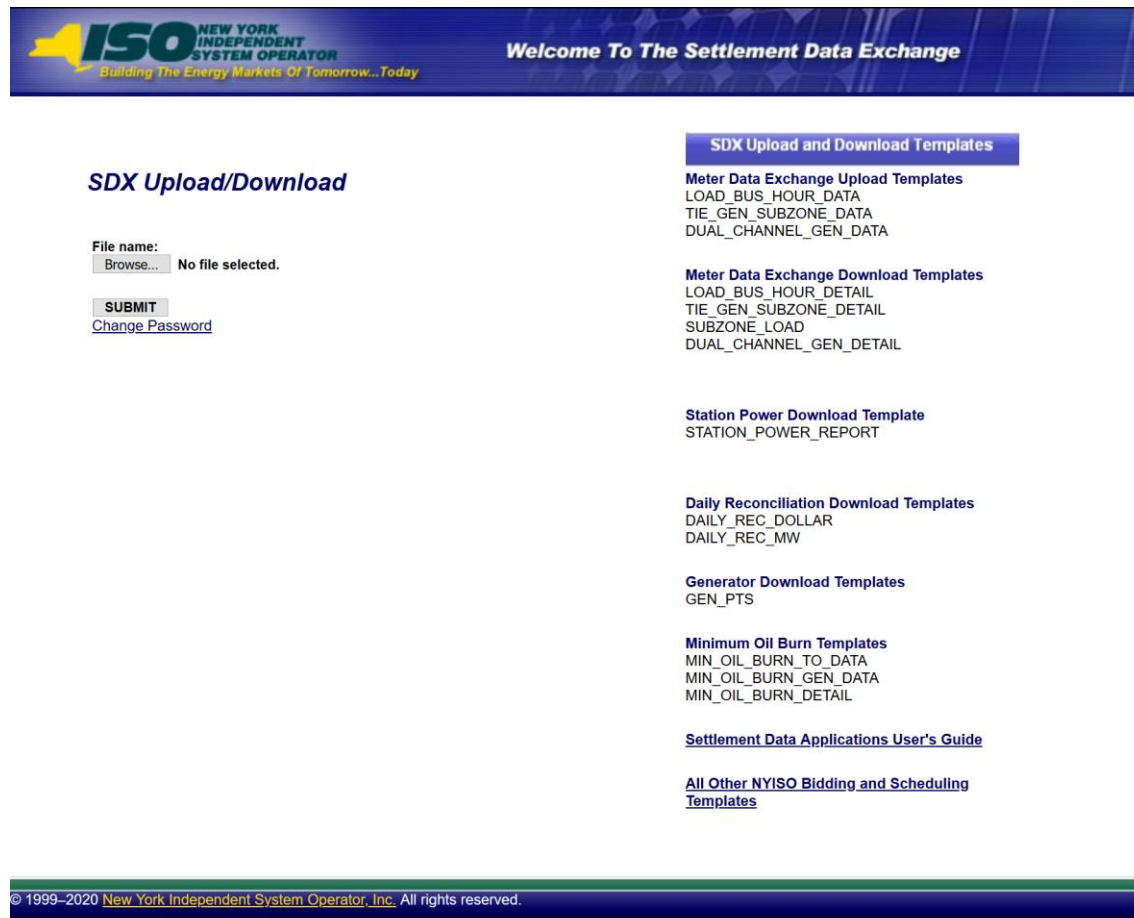
The *SDX Upload and Download* page (see

Figure 3) is available directly by using the **SDX Upload and Download** link:

<https://sdx.nyiso.com/upload.html>

MPs will be able to download the data discussed in this section from SDX for a three year and ten-month period ending with the current month.

Figure 3: SDX Upload and Download Web page



2.2. Upload Template for Tie Line, Generator, and Subzone Data

The “TIE_GEN_SUBZONE_DATA” upload template enables a Meter Authority to upload tie line, generator, and subzone hourly MW values to NYISO for a specific tie line, non-dual channel generator (ESR and LESR), or subzone PTID, or up to all applicable PTIDs assigned to that Meter Authority. Meter data uploads for Aggregations (Distributed Energy Resource (“DER”) Aggregations and Single-Resource Type (SRT) Aggregations) **must** be done through the Metering API.

Data submitted via the TIE_GEN_SUBZONE_DATA upload template always includes a header that defines the following: “Bid Type” (TIE_GEN_SUBZONE_DATA), the user’s ID, the user’s password, and the number of rows of data.

Request File: Header Detail

An ampersand (&) defines the end of each entry field of the header.

Variable Name	Value	Mandatory
USERID	Valid NYISO user name	Y
PASSWORD	Valid NYISO password	Y
BID_TYPE	TIE_GEN_SUBZONE_DATA	Y
DATA_ROWS	Total number of records in the request: Value must match total data rows in the request file	Y
DATA_SUM	Total sum of MWs in the request: Value must match the sum of all MWs included in the request file	N
UPLOAD_RESPONSE	Y or N: defaults to N N: Only response file parameters returned Y: Response file parameters returned and the sum of MWs processed for each PTID included in request file	N
REQUEST_ID	30 character alphanumeric	N

Request File: Data detail for each record submitted:

A carriage return marks the end of each line of upload data.

Parameter	Data Type	Description
DATE_HOUR	MM/DD/YYYY HH24:MM	Date parameter can be defined as the specific day. Included in the upload per PTID would be 23, 24, or 25 hourly values ² . All hours are identified as hour beginning (HB) in 24-hour time. Times are local (New York) time.
TIE/GEN/SUB ZONE PTID	NUMBER	Unique integer identifier defined by the NYISO; excluding LESR-defined generators or generators within the ESR participation model
MA REPORTED MWh	NUMBER (20,4)	Hourly MW value reported by the Meter Authority for each PTID. Data entered may not exceed 4 decimal places.

Following successful submission of “TIE_GEN_SUBZONE_DATA”, the NYISO will respond with a Response File, which has the following format.

² For additional information concerning the treatment of 23- and 25-hour days, please refer to NYISO Technical Bulletins 064 (25-hour day) and 088 (23-hour day), both of which are available from the NYISO Web site at <https://www.nyiso.com/manuals-tech-bulletins-user-guides>.

Response File: Header Detail

Variable Name	Value	Mandatory
TIME_STAMP	The time stamp indicating when the NYISO system processed the request	Y
BID_TYPE	TIE_GEN_SUBZONE_DATA	Y
REQUEST_ID	The value submitted to NYISO in the request file	N
DATA_ROWS	The total number of records processed in the request	Y
DATA_SUM	Total sum of MWs processed in the request	Y

Response File: Data Detail

Response file data detail is only returned when the request file includes UPLOAD_RESPONSE=Y

Parameter	Description	Mandatory
GEN_SUM	The total MWh value of all generator data included in the request file	N – only returned when generator data is included in the request file
<i>Each row that follows includes the generator PTID and total MWh value in CSV (comma-separated value) format. These data rows are only returned when generator data is included in the request file.</i>		
TIE_SUM	The total MWh value of all tie data included in the request file	N – only returned when tie-line data is included in the request file
<i>Each row that follows includes the tie PTID and total MWh value in CSV format. These data rows are only returned when tie-line data is included in the request file.</i>		
SZ_SUM	The total MWh value of all subzone data included in the request file	N – only returned when subzone data is included in the request file
<i>Each row that follows includes the subzone PTID and total MWh value in CSV format. These data rows are only returned when subzone data is included in the request file.</i>		

Example 1:

Request File (TIE_GEN_SUBZONE_DATA): _____

Request File: For example, hourly MW values submitted for HB 00 through HB 01 of December 1, 2018 for three PTIDs would include the following:

BID_TYPE=TIE_GEN_SUBZONE_DATA&

USERID=USER1&

PASSWORD=PASSWORD1&

DATA_ROWS=6&

DATA_SUM=602.0101&

REQUEST_ID=1201201823000&

UPLOAD_RESPONSE=Y&

12/01/2018 00:00,23000,100.90

12/01/2018 01:00,23000,100.776

12/01/2018 00:00,25000,100.3341

12/01/2018 01:00,25000,100

12/01/2018 00:00,55000,100

12/01/2018 01:00,55000,100

Response File (TIE_GEN_SUBZONE_DATA):

```
TIME_STAMP=01/15/2019 10:34
BID_TYPE=TIE_GEN_SUBZONE_DATA
REQUEST_ID=1201201823000
DATA_ROWS=6
DATA_SUM=600
GEN_SUM=200
23000,200
TIE_SUM=200
25000,200
SZ_SUM=200
55000,200
```

2.3. Download Template for Tie Line, Generator, and Subzone Data

The “TIE_GEN_SUBZONE_DETAIL” download template enables a Generator or Meter Authority to download their tie-line, non-dual channel generator (ESR and LESR), and subzone hourly MW data for a specified period within a month. Meter data downloads for Aggregations **must** be done through the Metering API.

The user can enter a single tie line, generator, or subzone PTID, or select up to 10 PTIDs at one time. If the user is requesting data for a specific period within a month, the user should enter the specific month in the BILLING_MONTH field and use the START_DATE and END_DATE parameters to specify the period.

The TIE_GEN_SUBZONE_DETAIL user can request:

1. Tie, generator and subzone data at the hourly level to verify data that was previously uploaded:
 - request file may contain optional parameters
2. Subzone summary level data, grouped by generator, tie, and subzone (intended for Meter Authority users):
 - optional parameters are not supported within the request file
3. Subzone detail level data, grouped by generator, tie and subzone, and sub-grouped by PTID (intended for Meter Authority users):
 - optional parameters are not supported within the request file

Data requests submitted via the TIE_GEN_SUBZONE_DETAIL download template always includes a header that defines the following: “Query Type” (TIE_GEN_SUBZONE_DETAIL), the user’s ID, the user’s password, the billing month and the subzone PTID.

Request File: Header Detail

An ampersand (&) defines the end of each entry field of the header.

Variable Name	Value	Mandatory
USERID	Valid NYISO user name	Y
PASSWORD	Valid NYISO password	Y
QUERY_TYPE	TIE_GEN_SUBZONE_DETAIL	Y
BILLING_MONTH	MM/YYYY	Y
PTID	PTID exactly as shown in MIS; excluding LESR-defined generators or generators within the ESR participation model <i>One to ten supported, comma separated</i>	N
SUBZONE_PTID	Subzone PTID exactly as shown in MIS: <i>One subzone PTID will return all valid data; multiple or no subzone PTIDs will only return all valid data when data row count < 50,000 records</i>	N*
START_DATE	MM/DD/YYYY HH24:MM <i>MM/YYYY must match the BILLING_MONTH field</i>	N
END_DATE	MM/DD/YYYY HH24:MM <i>MM/YYYY must match the BILLING_MONTH field</i>	N
VERSION	Invoice version number: <i>VERSION=0 will return the latest data received</i>	N
UPDATE_TIME_START	MM/DD/YYYY HH24:MM	N
UPDATE_TIME_END	MM/DD/YYYY HH24:MM	N

Following successful submission of “TIE_GEN_SUBZONE_DETAIL”, the NYISO will respond with a Response File, which has the following format.

Response File: Header Detail

Variable Name	Value	Mandatory
TIME_STAMP	The time stamp indicating when the NYISO system processed the request	Y
BID_TYPE	TIE_GEN_SUBZONE_DETAIL	Y
DATA_ROWS	The total number of records processed in the request	Y
START_DATE	The start date of the data range returned (MM/YYYY)	Y
END_DATE	The end date of the data range returned (MM/YYYY)	Y

Response File - Data Detail:

Requests provided in CSV format:

Each data row includes: date and hour, billing date, version, Meter Authority, PTID, Name of PTID, MA Reported MWh Value, Telemetry Avg Actual MWh, MA Last Updated, MA Last Updated User, Billed Flag

Example 1:

- MA requests monthly data for a single PTID

Request File (TIE_GEN_SUBZONE_DETAIL):

```

USERID=MAuser&
PASSWORD=password&
QUERY_TYPE=TIE_GEN_SUBZONE_DETAIL&
BILLING_MONTH=10/2019&
START_DATE=10/01/2019 00:00&
END_DATE=10/02/2019 00:00&
SUBZONE_PTID=12345&
PTID=23111&

```

Response File (TIE_GEN_SUBZONE_DETAIL):

```

TIME_STAMP=12/21/2019 09:09
BID_TYPE=TIE_GEN_SUBZONE_DETAIL
START_DATE=10/01/2019 00:00
END_DATE=10/02/2019 00:00
DATA_ROWS=24
"10/01/2019 00:00","10/01/2019 ",0,"XYZ Company",23111,"ABC",123.4567,123.6543,"09/20/2006 08:48","TESTUSER","Y"
"10/01/2019 01:00","10/01/2019 ",0,"XYZ Company",23111,"ABC",123.4567,123.6543,"09/20/2006 08:48","TESTUSER","Y"
"10/01/2019 02:00","10/01/2019 ",0,"XYZ Company",23111,"ABC",123.4567,123.6543,"09/20/2006 08:48","TESTUSER","Y"
"10/01/2019 03:00","10/01/2019 ",0,"XYZ Company",23111,"ABC",123.4567,123.6543,"09/20/2006 08:48","TESTUSER","Y"
"10/01/2019 04:00","10/01/2019 ",0,"XYZ Company",23111,"ABC",123.4567,123.6543,"09/20/2006 08:48","TESTUSER","Y"
"10/01/2019 05:00","10/01/2019 ",0,"XYZ Company",23111,"ABC",123.4567,123.6543,"09/20/2006 08:48","TESTUSER","Y"
"10/01/2019 06:00","10/01/2019 ",0,"XYZ Company",23111,"ABC",123.4567,123.6543,"09/20/2006 08:48","TESTUSER","Y"
"10/01/2019 07:00","10/01/2019 ",0,"XYZ Company",23111,"ABC",123.4567,123.6543.....

```

2.4. Upload Template for Load Bus Data

The LOAD_BUS_HOUR_DATA upload template enables a Meter Authority to upload its applicable load bus data. The user can upload a single bus PTID, or up to all applicable PTIDs for all hours of a single month (maximum upload data rows <50,000).

If the MW value for a load bus is zero for a given hour, then the user must enter a zero in the field. The Hourly MW Value field should not be left blank, and the data entered in this field may not exceed four decimal places.

Data submitted via the LOAD_BUS_HOUR_DATA upload template always includes a header that defines the “Bid Type” (LOAD_BUS_HOUR_DATA), the user’s ID, the user’s password, and the number of rows of data.

Request File: Header Detail

An ampersand (&) defines the end of each entry field of the header.

Variable Name	Value	Mandatory
USERID	Valid NYISO user name	Y
PASSWORD	Valid NYISO password	Y
BID_TYPE	LOAD_BUS_HOUR_DATA	Y
DATA_ROWS	Total number of records in the request: Value must match total data rows in the request file	Y
DATA_SUM	Total sum of MWs in the request: Value must match the sum of all MWs included in the request file	N
UPLOAD_RESPONSE	Y or N: defaults to N N: Only response file parameters returned Y: Response file parameters returned and the sum of MWs processed for each PTID included in request file	N
REQUEST_ID	30 character alphanumeric	N

Request File: Data detail for each record submitted:

A carriage return marks the end of each line of upload data.

Parameter	Data Type	Description
DATE_HOUR	MM/DD/YYYY HH24:MM	Date parameter can be defined as the specific day. Included in the upload per PTID would be 23, 24, or 25 hourly values ³ . All hours are identified as hour beginning (HB) in 24-hour time. Times are local (New York) time.
BUS_PTID	NUMBER	Unique integer identifier defined by NYISO
HOURLY MW VALUE	NUMBER (20,4)	Hourly MW value reported by the Meter Authority for each PTID. Positive, negative, and 0 values are supported. Data entered may not exceed 4 decimal places.

Following successful submission of “LOAD_BUS_HOUR_DATA”, the NYISO will respond with a Response File, which has the following format.

Response File: Header Detail

Variable Name	Value	Mandatory
TIME_STAMP	The time stamp indicating when the NYISO system processed the request	Y
BID_TYPE	LOAD_BUS_HOUR_DATA	Y
REQUEST_ID	The value submitted to NYISO in the request file	N
DATA_ROWS	The total number of records processed in the request	Y
DATA_SUM	Total sum of MWs processed in the request	Y
When UPLOAD_RESPONSE=Y , each data row that follows includes the following: PTID, sum of hourly MWh values		

Response File: Data Detail

Response file data detail is only returned when the request file includes UPLOAD_RESPONSE=Y

Each row that follows includes: bus PTID, sum of Hourly MWh values in CSV format.

³ For additional information concerning the treatment of 23- and 25-hour days, please refer to NYISO Technical Bulletins 064 (25-hour day) and 088 (23-hour day), both of which are available from the NYISO Web site at <https://www.nyiso.com/manuals-tech-bulletins-user-guides>.

Example 1:

- A Meter Authority submits a TOL Upload with UPLOAD_RESPONSE=Y

Request File (LOAD_BUS_HOUR_DATA):

BID_TYPE=LOAD_BUS_HOUR_DATA&
USERID=MAuser&
PASSWORD=password&
DATA_ROWS=8&
DATA_SUM=801.876&
UPLOAD_RESPONSE=Y&
REQUEST_ID=1201201923000&
12/01/2019 00:00,999991,100.2345
12/01/2019 01:00,999991,100.2345
12/01/2019 02:00,999991,100.2345
12/01/2019 03:00,999991,100.2345
12/01/2019 00:00,999999,100.2345
12/01/2019 01:00,999999,100.2345
12/01/2019 02:00,999999,100.2345
12/01/2019 03:00,999999,100.2345

Response File (LOAD_BUS_HOUR_DATA):

TIME_STAMP=02/01/2020 10:34
BID_TYPE=LOAD_BUS_HOUR_DATA
REQUEST_ID=0201202023000
DATA_ROWS=8
DATA_SUM=800
999999,400
999991,400

Example 2:

- A Meter Authority submits a TOL Upload with UPLOAD_RESPONSE = N

Request File (LOAD_BUS_HOUR_DATA):

BID_TYPE=LOAD_BUS_HOUR_DATA&
USERID=MAuser&
PASSWORD=password&
DATA_ROWS=8&
DATA_SUM=800&
UPLOAD_RESPONSE=N&
12/01/2019 00:00,999991,100
12/01/2019 01:00,999991,100
12/01/2019 02:00,999991,100
12/01/2019 03:00,999991,100
12/01/2019 00:00,999999,100
12/01/2019 01:00,999999,100
12/01/2019 02:00,999999,100
12/01/2019 03:00,999999,100

Response File (LOAD_BUS_HOUR_DATA):

TIME_STAMP=02/01/2020 10:34
BID_TYPE=LOAD_BUS_HOUR_DATA
DATA_ROWS=8
DATA_SUM=800

2.5. Download Template for Load Bus Data

The “LOAD_BUS_HOUR_DETAIL” download template enables Load Serving Entities to download their applicable load bus data. This download query can provide load bus data for a specified period of time within a given month. The user may query a single BUS PTID, select up to 10 BUS PTIDs at one time, or select all BUS PTIDs associated with the user by leaving the BUS PTID field blank. The returned information will also specify the last time that the data was updated, and identify the party that performed the most recent update. If the user is requesting data for a specific time period within a month, the user should enter the specific month in the BILLING_MONTH field and use the START_DATE and END_DATE parameters to specify the time period.

The LOAD_BUS_HOUR_DETAIL user can request:

1. Load bus data at the hourly level to verify data that was previously uploaded:
 - request file will not include the LOAD_VERIFICATION field and may contain optional parameters
2. Subzone summary level data, showing comparison between the TO submitted load and the NYISO calculated subzone load:
 - request file will include the LOAD_VERIFICATION=SUMMARY, optional parameters are not supported
3. Subzone detail level data, showing comparison between the TO submitted load and the NYISO calculated subzone load with totals for each load bus:
 - request file will include the LOAD_VERIFICATION=DETAIL, optional parameters are not supported

Data requests submitted via the LOAD_BUS_HOUR_DETAIL download template always includes a header that defines the following: “Query Type” (LOAD_BUS_HOUR_DETAIL), the user’s ID, the user’s password, and the billing month.

Request File: Header Detail

An ampersand (&) defines the end of each entry field of the header.

Variable Name	Value	Mandatory
USERID	Valid NYISO user name	Y
PASSWORD	Valid NYISO password	Y
QUERY_TYPE	LOAD_BUS_HOUR_DETAIL	Y
BILLING_MONTH	MM/YYYY	Y
PTID	PTID exactly as shown in MIS: <i>One to ten supported, comma separated</i>	N
SUBZONE_PTID	Subzone PTID exactly as shown in MIS: <i>One subzone PTID per request</i>	N
START_DATE	MM/DD/YYYY HH24:MM	N

Variable Name	Value	Mandatory
	<i>MM/YYYY must match the BILLING_MONTH field</i>	
END_DATE	MM/DD/YYYY HH24:MM <i>MM/YYYY must match the BILLING_MONTH field</i>	N
VERSION	Invoice version number: <i>VERSION=0 will return the latest data received</i>	N
UPDATE_TIME_START	MM/DD/YYYY HH24:MM	N
UPDATE_TIME_END	MM/DD/YYYY HH24:MM	N
LOAD_VERIFICATION	SUMMARY, DETAIL <i>SUMMARY: Summary information on comparison between the TO submitted load and the NYISO calculated subzone load</i> <i>DETAIL: Same as summary with detail by bus PTID</i> <i>All other optional parameters ignored</i>	N

Following successful submission of “LOAD_BUS_HOUR_DETAIL”, the NYISO will respond with a Response File, which has the following format:

Response File: Header Detail:

Variable Name	Value	Mandatory
TIME_STAMP	The time stamp indicating when the NYISO system processed the request	Y
BID_TYPE	LOAD_BUS_HOUR_DETAIL	Y
DATA_ROWS	The total number of records processed in the request	Y
BILLING_MONTH	The month being returned	N: included for LOAD_VERIFICATION requests
SUBZONE_NUM	The number of subzones returned	N: included for LOAD_VERIFICATION requests

Response File - Data Detail:

(1) Requests, which do not include the LOAD_VERIFICATION option; provided in CSV format:

Each data row includes: date & hour, billing date, version, load bus PTID, Name of PTID, Meter Authority Hourly MWh Value, Update Date and Hour, Update User, Billed Flag

(2) Requests, which include the LOAD_VERIFICATION option; output is ordered by SUBZONE_NAME

Parameter	Description	Mandatory
SUBZONE_NAME	Name of Subzone	Summary and Detail
SUBZONE_PTID	PTID value for Subzone	Summary and Detail
MLOAD	Shows monthly total subzone load; NYISO calculated from meter, gen, tie and loss data for the month	Summary and Detail
BUS_SUM	Shows monthly total of meter supplied load busses within the subzone for the month	Summary and Detail
DELTA	Shows the difference between MLOAD and BUS_SUM for the month	Summary and Detail
HOURS_MATCH	Y or N <i>Y: Each hour of the month matches between Hourly LOAD and Hourly BUS_SUM</i> <i>N: Each hour of the month does not match</i>	Summary and Detail
SDX-001	Indicates the number of hours which do not match	Summary and Detail Only provided when HOURS_MATCH=N
Each row that follows includes the hour found in error; Only provided when HOURS_MATCH=N and SDX-001 is returned		Summary and Detail Only provided when HOURS_MATCH=N
BUS_PTIDS	Number of PTIDs included in the BUS_SUM	Summary and Detail
Each row that follows includes the load bus PTID, load bus name, monthly MWh sum		Detail

Example 1:

- A user who is authorized for one PTID requests a LOAD_BUS_HOUR_DETAIL Download for one day:

Request File (LOAD_BUS_HOUR_DETAIL):

USERID=user&
PASSWORD=password&
QUERY_TYPE=LOAD_BUS_HOUR_DETAIL&
BILLING_MONTH=01/2019&
PTID=123456&
START_DATE=01/01/2019 00:00&
END_DATE=01/02/2019 00:00&

Response File (LOAD_BUS_HOUR_DETAIL)

TIME_STAMP=08/01/2019 09:53
BID_TYPE=LOAD_BUS_HOUR_DETAIL
DATA_ROWS=24
"01/01/2019 00:00","01/01/2019",0,123456,"ABCD",3.456,"06/12/2019 13:07","TESTUSER","Y"
"01/01/2019 01:00","01/01/2019",0,123456,"ABCD",3.456,"06/12/2019 13:07","TESTUSER","Y"
"01/01/2019 02:00","01/01/2019",0,123456,"ABCD",3.456,"06/12/2019 13:07","TESTUSER","Y"
...

Example 2:

- A Meter Authority who is authorized to see one subzone requests a TOL Download with Verification Summary:

Request File (LOAD_BUS_HOUR_DETAIL):

USERID=MAuser&
PASSWORD=password&
QUERY_TYPE=LOAD_BUS_HOUR_DETAIL&
BILLING_MONTH=10/2019&
LOAD_VERIFICATION=SUMMARY&

Response File (LOAD_BUS_HOUR_DETAIL)

TIME_STAMP=01/21/2020 09:09
BID_TYPE=LOAD_BUS_HOUR_DETAIL
DATA_ROWS=8
BILLING_MONTH=10/2019
SUBZONE_NUM=1
SUBZONE_PTID=11111
MLOAD=2000.0000
BUS_SUM=2000.0000
DELTA=0
HOURS_MATCH=Y
BUS_PTIDS=2

Example 3:

- A Meter Authority who is authorized to see three subzones requests a TOL Download with LOAD_VERIFICATION=DETAIL and receives an error message
- The Meter Authority is authorized to see all bus values, error shows the difference at the hourly level between Load Bus Sum and Subzone Load Calculation

Request File (LOAD_BUS_HOUR_DETAIL):

USERID=username&
PASSWORD=password&
QUERY_TYPE=LOAD_BUS_HOUR_DETAIL&
BILLING_MONTH=10/2019&
LOAD_VERIFICATION=DETAIL&

Response File (LOAD_BUS_HOUR_DETAIL)

TIME_STAMP=01/21/2020 09:09
BID_TYPE=LOAD_BUS_HOUR_DETAIL
DATA_ROWS=58
BILLING_MONTH=10/2019
SUBZONE_NUM=3
SUBZONE_NAME=AAA
SUBZONE_PTID=11111
MLOAD=2000.0000
BUS_SUM=2000.0000
DELTA=0.000
HOURS_MATCH=Y
BUS_PTIDS=2
100101,BUS_A1,1000.0000
100102,BUS_B1,1000.0000
SUBZONE_NAME=BBB
SUBZONE_PTID=22222
MLOAD=2000.0000
BUS_SUM=2000.0000
DELTA=0.000
HOURS_MATCH=Y
BUS_PTIDS=2
100991,BUS_A2,1000.0000
100999,BUS_B2,1000.0000
SUBZONE_NAME=CCC
SUBZONE_PTID=33333
MLOAD=2000.0000
BUS_SUM=1800.0000
DELTA=200.0000
HOURS_MATCH=N
SDX-001=2
Hourly mismatch for 10/01/2019 00:00
Hourly mismatch for 10/01/2019 01:00

Example 4:

- A LSE user who is authorized to view three of their own busses across three subzones requests a TOL Download with Verification Summary:

Request File (LOAD_BUS_HOUR_DETAIL):

USERID=username&
PASSWORD=password&
QUERY_TYPE=LOAD_BUS_HOUR_DETAIL&
BILLING_MONTH=10/2019&
LOAD_VERIFICATION=SUMMARY&

Response File (LOAD_BUS_HOUR_DETAIL)

TIME_STAMP=01/21/2020 09:09
BID_TYPE=LOAD_BUS_HOUR_DETAIL
DATA_ROWS=11
BILLING_MONTH=10/2019
SUBZONE_NUM=3
SUBZONE_PTID=11111
HOURS_MATCH=Y
BUS_PTIDS=1
SUBZONE_PTID=22222
HOURS_MATCH=Y
BUS_PTIDS=1
SUBZONE_PTID=33333
HOURS_MATCH=Y
BUS_PTIDS=1

Example 5:

- A LSE user who is authorized to view three of their own busses across three subzones requests a TOL Download with LOAD_VERIFICATION=DETAIL and receives an error. (LSE's are only authorized to see their own load bus values):

Request File (LOAD_BUS_HOUR_DETAIL):

USERID=username&
PASSWORD=password&
QUERY_TYPE=LOAD_BUS_HOUR_DETAIL&
BILLING_MONTH=10/2019&
LOAD_VERIFICATION=DETAIL&

Response File (LOAD_BUS_HOUR_DETAIL)

TIME_STAMP=01/21/2020 09:09
BID_TYPE=LOAD_BUS_HOUR_DETAIL
DATA_ROWS=9
BILLING_MONTH=10/2019
SUBZONE_NUM=2
SUBZONE_PTID=10001
HOURS_MATCH=Y
100999,BUS_A1,1000.0000
SUBZONE_PTID=10002
HOURS_MATCH=N
SDX-001=1
Hourly mismatch for 10/01/2019 00:00

2.6. Download Template for Meter Authority Subzone Load Data

The “Subzone Load” download template enables a Meter Authority to download its Subzone Load data. The user can enter one or more Subzone PTIDs or select every Subzone PTID associated with the user by leaving the SUBZONE_PTID field blank. The Meter Authority may request data for a specific date, or an entire month, as specified by the user. Contributions from Aggregations will be included in the Meter Authority Subzone Load Data download template that provides the calculated subzone load.

Data requests submitted via the SUBZONE_LOAD download template always includes a header that defines the following: “Query Type” (SUBZONE_LOAD), the user’s ID, the user’s password, and the billing month.

Request File: Header Detail

An ampersand (&) defines the end of each entry field of the header.

Variable Name	Value	Mandatory
USERID	Valid NYISO user name	Y
PASSWORD	Valid NYISO password	Y
QUERY_TYPE	SUBZONE_LOAD	Y
BILLING_MONTH	MM/YYYY	Y
SUBZONE_PTID	Subzone PTID exactly as shown in MIS: <i>One or more permitted, comma delimited</i>	N
START_DATE	DD/YYYY HH24:MM or MM/DD/YYYY HH24:MM <i>MM/YYYY must match the BILLING_MONTH field</i>	N
END_DATE	DD/YYYY HH24:MM or MM/DD/YYYY HH24:MM <i>MM/YYYY must match the BILLING_MONTH field</i>	N
VERSION	Invoice version number: <i>VERSION=0 will return the latest data received</i>	N

Following successful submission of “SUBZONE_LOAD”, the NYISO will respond with a Response File, which has the following format.

Response File: Header Detail

Variable Name	Value	Mandatory
TIME_STAMP	The time stamp indicating when the NYISO system processed the request	Y
BID_TYPE	SUBZONE_LOAD	Y
DATA_ROWS	The total number of records processed in the request	Y

Response File – Data Detail:

The response is in CSV format:

Each data row includes: date and hour, billing date, version, Subzone PTID, Subzone Load Contribution (integrated MWh), losses

Example 1:

Request File (SUBZONE_LOAD):

```

USERID=MAuser&
PASSWORD=password&
QUERY_TYPE=SUBZONE_LOAD&
BILLING_MONTH=20/2019&

```

Response File (SUBZONE_LOAD):

```

TIME_STAMP=01/22/2020 15:41
BID_TYPE=SUBZONE_LOAD
DATA_ROWS=0
"02/01/2019 00:00","02/01/2019",0,12345,2054.359,22.108
"02/01/2019 01:00","02/01/2019",0,12345,1966.229,22.553
"02/01/2019 02:00","02/01/2019",0,12345,1915.635,20.706
"02/01/2019 03:00","02/01/2019",0,12345,1897.199,20.331
"02/01/2019 04:00","02/01/2019",0,12345,1929.151,20.442"02/01/2019 05:00","02/01/2019",0,
12345,2059.115,21.722
"02/01/2019 06:00","02/01/2019",0,12345,2354.294,25.11
"02/01/2019 07:00","02/01/2019",0,12345,2570.756,27.575
"02/01/2019 08:00","02/01/2019",0,12345,2660.813,27.986
...

```

2.7. Station Power: Reporting, Viewing, and Updating

Meter Authorities (MAs) are required to provide hourly load data to support the Settlement Adjustment Rebilling process. This process includes the reporting of Station Power consumption. MAs may view and update Station Power data through the *Wholesale Load Bus Detail* page provided in the Settlement Data Exchange application (SDX) or update load data by using the [Upload Template for Load Bus Data](#). The following information describes how MAs report, view, and update Station Power metering data. All market participants can view Station Power data by using the applications and processes described in the following.

Meter readings for Station Power adhere to the same constraints and rules governing load data submittals. Actual meter readings are not used until after the first invoice is created, initial invoices are based upon the Station Power forecasts submitted to the NYISO on the load forecast pages of the MIS by generators scheduling Station Power. MAs report non-zero Station Power data (hourly Station Power bus data greater than zero) to the NYISO for all hours regardless of whether a unit was on or off-line. These values are reported to the NYISO via the SDX Web interface or upload/download batch procedures. MAs may choose to identify individual meters to measure Station Power for a generating site or they may choose to aggregate the meters. For each meter or aggregated set of meters, a Station Power load bus must be defined in the MIS database. Although multiple busses may be used, at least one bus will be defined as the bus to be used by the Generator to schedule Station Power in the DAM and to report its forecast Station Power consumption. Meter readings will be consistently aggregated or non-aggregated on a unit-by-unit basis. In instances where a generator produces energy for a fraction of an hour and consumes Station Power for the remainder of the hour, two meter readings are uploaded: one reading for net generation during the time period the unit was online, and another reading for Station Power during the time period the unit was consuming Station Power.

MA users can view and update their Station Power data by using the Customer Settlements Interface (CSI) *Wholesale Load Bus Detail* page or by using the Meter Data Exchange upload and download templates for load busses (LOAD_BUS_HOUR_DATA and LOAD_BUS_HOUR_DETAIL). Additionally, generators have the ability to view, but not update, Station Power bus data by using the Customer Settlements Interface (CSI) *Wholesale Load Bus Detail* page or by using the Meter Data Exchange download template for load busses (LOAD_BUS_HOUR_DETAIL).

2.7.1. Download Template for Station Power

The “STATION_POWER_REPORT” download template enables a user to download the detail of their hourly station power usage. Transmission Owners will get a report that contains all the generators for which they report Station Power meter readings. Power Suppliers will get a report only showing their generator(s). Load Serving Entities will get a report displaying those generators that have informed the NYISO they are the LSE’s customers. Station Power data is available for billing months from January 2004, version 4, going forward.

Data requests submitted via the STATION_POWER_REPORT download template always includes a header that defines the following: “Query Type” (STATION_POWER_REPORT), the user’s ID, the user’s password, the billing month and version.

Request File: Header Detail

An ampersand (&) defines the end of each entry field of the header.

Variable Name	Value	Mandatory
USERID	Valid NYISO user name	Y
PASSWORD	Valid NYISO password	Y
QUERY_TYPE	STATION_POWER_REPORT	Y
BILLING_MONTH	MM/YYYY	Y
VERSION	Invoice version number	Y
PTID	Generator PTID exactly as shown in MIS: <i>Up to 10 permitted, comma delimited</i>	N

Following successful submission of “STATION_POWER_REPORT”, the NYISO will respond with a Response File, which has the following format.

Response File: Header Detail

Variable Name	Value	Mandatory
TIME_STAMP	The time stamp indicating when the NYISO system processed the request	Y
BID_TYPE	STATION_POWER_REPORT	Y
DATA_ROWS	The total number of records processed in the request	Y

Response File – Data Detail:

The response is in CSV format:

Note: The last record for every month (Hour 23:59 on the last day of the month) represents the monthly total of all Station Power usage data for that generator.

Each data row that follows includes the following: Date and Hour, Generator PTID, Generator Name, Station Power Load Bid, Station Power Load Forecast, Meter Authority MW load value, Net Generation, 3rd Party PTID, 3rd Party Name, 3rd Party MW Allocation, 3rd Party Station Power Credit/Charge, Ancillary Service Charge (except Annual Budget and FERC Fees), Remote Self Supply MW, NTAC Charge, RS1 Net Annual Budget Charge, RS1 FERC Fee Charge

Example 1:

Request File (STATION_POWER_REPORT):

USERID=MAuser&
PASSWORD=password&
QUERY_TYPE=STATION_POWER_REPORT&
BILLING_MONTH=03/2019&
VERSION=2&

Response File (STATION_POWER_REPORT):

TIME_STAMP=09/02/2019 07:35
BID_TYPE=STATION_POWER_REPORT
DATA_ROWS=721
"03/01/2019 00:00",12345,"Generator 12345",1,0,0,-1,123,"3rd Party Name",0,0,0,0,0,0,0
"03/01/2019 01:00",12345,"Generator 12345",1,0,0,-1,123,"3rd Party Name",0,0,0,0,0,0,0
"03/01/2019 02:00",12345,"Generator 12345",1,0,0,-1,123,"3rd Party Name",0,0,0,0,0,0,0
"03/01/2019 03:00",12345,"Generator 12345",1,0,0,1,123,"3rd Party Name",0,0,0,0,0,0,0
...

2.8. Download Template for Daily Reconciliation – Dollar

The “DAILY_REC_DOLLAR” download template enables a user to download the detail of their daily reconciliation file in dollars.

Data requests submitted via the DAILY_REC_DOLLAR download template always includes a header that defines the following: “Query Type” (DAILY_REC_DOLLAR), the user’s ID, the user’s password, the start date, end date and version.

Note: The data returned in the file may be a subset of the requested date range when the version is not available for all days of the request.

Request File: Header Detail

An ampersand (&) defines the end of each entry field of the header.

Variable Name	Value	Mandatory
USERID	Valid NYISO user name	Y
PASSWORD	Valid NYISO password	Y
QUERY_TYPE	DAILY_REC_DOLLAR	Y
START_DATE	MM/DD/YYYY	Y
END_DATE	MM/DD/YYYY	Y
VERSION	Invoice version number: <i>VERSION=0 will return the latest data received</i>	Y
ORGANIZATION	Organization name; omit to request all authorized data	N

Following successful submission of “DAILY_REC_DOLLAR”, the NYISO will respond with a Response File, which has the following format.

Response File: Header Detail

Variable Name	Value	Mandatory
TIME_STAMP	The time stamp indicating when the NYISO system processed the request	Y
BID_TYPE	DAILY_REC_DOLLAR	Y
DATA_ROWS	The total number of records processed in the request	Y

Response File – Data Detail:

The response is in CSV format:

Each data row that follows includes the following: account ID, account description, amount, total

Example 1:

Request File (DAILY_REC_DOLLAR):

USERID=NYISUser&
PASSWORD=password&
QUERY_TYPE=DAILY_REC_DOLLAR&
START_DATE=01/01/2020&
END_DATE=01/31/2020&
VERSION=0&

Response File (DAILY_REC_DOLLAR):

TIME_STAMP=02/22/2020 07:31
BID_TYPE=DAILY_REC_DOLLAR
DATA_ROWS=169
70101,"DAM LSE Internal LBMP Energy",334202188.79,
70201,"DAM LSE Internal LBMP Losses",18826031.9,
70301,"DAM LSE Internal LBMP Congestion",73366049.95,
75901,"DAM External TC LBMP Energy Sales Revenue",33151301.01,
76001,"DAM External TC LBMP Losses Sales Revenue",-143355.98,
76101,"DAM External TC LBMP Congestion Sales Revenue",2822690.7,
75902,"DAM Replacement LBMP Energy Sales Revenue Due to Curtailed Imports",1143275.65,
76002,"DAM Replacement LBMP Losses Sales Revenue Due to Curtailed Imports",112977.1,
76102,"DAM Replacement LBMP Congestion Sales Revenue Due to Curtailed Imports",421011.15,
77101,"DAM Virtual Load LBMP Energy Sales",68712168.26,
77102,"DAM Virtual Load LBMP Losses Sales",4446416.95,
...

2.9. Download Template for Daily Reconciliation – MWh

The “DAILY_REC_MWH” download template enables a user to download the detail of their daily reconciliation file in MWh.

Data requests submitted via the DAILY_REC_MWH download template always includes a header that defines the following: “Query Type” (DAILY_REC_MWH), the user’s ID, the user’s password, the start date, end date and version.

Note: The data returned in the file may be a subset of the requested date range when the version is not available for all days of the request.

Request File: Header Detail

An ampersand (&) defines the end of each entry field of the header.

Variable Name	Value	Mandatory
USERID	Valid NYISO user name	Y
PASSWORD	Valid NYISO password	Y
QUERY_TYPE	DAILY_REC_MWH	Y
START_DATE	MM/DD/YYYY	Y
END_DATE	MM/DD/YYYY	Y
VERSION	Invoice version number: <i>VERSION=0 will return the latest data received</i>	Y
ORGANIZATION	Organization name; omit to request all authorized data	N

Following successful submission of “DAILY_REC_MWH”, the NYISO will respond with a Response File, which has the following format.

Response File: Header Detail

Variable Name	Value	Mandatory
TIME_STAMP	The time stamp indicating when the NYISO system processed the request	Y
BID_TYPE	DAILY_REC_MWH	Y
DATA_ROWS	The total number of records processed in the request	Y

Response File – Data Detail:

The response is in CSV format:

Each data row that follows includes the following: account ID, account description, amount, total

Example 1:

Request File (DAILY_REC_MWH):

USERID=NYISUser&
PASSWORD=password&
QUERY_TYPE=DAILY_REC_MWH&
START_DATE=01/01/202007&
END_DATE=01/31/2020&
VERSION=0&

Response File (DAILY_REC_MWH):

TIME_STAMP=02/04/2020 07:38
BID_TYPE=DAILY_REC_MWH
DATA_ROWS=37
70001,"DAM LSE Internal LBMP Energy Sales",6325112,
75801,"DAM External TC LBMP Energy Sales",608107,
75802,"DAM Replacement LBMP Energy Sales Due to Curtailed Imports",28435,
77001,"DAM Virtual Load",1251933.4,
...

2.10. Download Template for Generator PTS Results

Request File: Header Detail

An ampersand (&) defines the end of each entry field of the header.

Variable Name	Value	Mandatory
USERID	Oracle account User name	Y
PASSWORD	Oracle account password	Y
QUERY_TYPE	GEN_PTS	Y
DATE	MM/DD/YYYY	Y
GENERATOR	Name or PTID exactly as shown in the MIS	N

Following successful submission of “GEN_PTS”, the NYISO will respond with a Response File, which has the following format.

Response File: Header Detail

Variable Name	Value	Mandatory
TIME_STAMP	The time stamp indicating when the NYISO system processed the request	Y
BID_TYPE	GEN_PTS	Y
DATA_ROWS	The total number of records processed in the request	Y

Response File – Data Detail:

The response is in CSV format:

Each data row that follows includes the following: generator name, PTID, time stamp, telemetry avg actual MW, average AGC MW, average RTD MW, regulation performance index, average positive control error MW, average negative control error MW, in service, on control, IPRoutput limit, telemetry avg actual injection MW, telemetry avg actual withdrawal MW, reserve performance index, total regulation movement MW

Example 1:

Request File (GEN_PTS):

USERID=testupld&
PASSWORD=testupld&
QUERY_TYPE=GEN_PTS&
DATE=06/14/2019&
GENERATOR=900301&

Response File (GEN_PTS):

TIME_STAMP=08/27/2019 14:15
BID_TYPE=GEN_PTS
DATA_ROWS=5
"SUBZ_900301_38_GEN-900301",900301,"06/14/2019 00:00:00",4,4,4,0,0,0,"Y","N","N",0,0,1,0
"SUBZ_900301_38_GEN-900301",900301,"06/14/2019 00:00:52",4,4,4,0,0,0,"Y","N","N",0,0,1,0
"SUBZ_900301_38_GEN-900301",900301,"06/14/2020 00:05:23",4,4,4,0,0,0,"Y","N","N",0,0,1,0
"SUBZ_900301_38_GEN-900301",900301,"06/14/2020 00:06:52",4,4,4,0,0,0,"Y","N","N",0,0,1,0
"SUBZ_900301_38_GEN-900301",900301,"06/14/2020 00:11:52",4,4,4,0,0,0,"Y","N","N",0,0,1,0

2.11. Minimum Oil Burn Upload and Download Templates

2.11.1. Program Overview

Generators identified by Transmission Owners (TOs) as necessary for compliance with the New York State Reliability Council (NYSRC) Local Reliability Rule G.2 or G.3 (“Identified Generators”) may be compensated for the additional variable operating costs incurred when instructed to operate pursuant to these reliability rules. The settlement support of this program is referred to as “Minimum Oil Burn Compensation (MOBC).”

Identified Generators choosing to participate in the NYISO’s MOBC program have specific registration, fuel consumption data and validation data requirements that are outlined in NYISO Technical Bulletin 156 and in Section 4.1.9 of the NYISO Market Services Tariff.

Once registered, the NYISO will process requests for MOBC on a daily basis using the Settlement Data Exchange (SDX). Processing will require SDX uploads by the TO and the identified Generator.

The NYISO automation and the corresponding SDX Upload/Download support of this program is effective November 1, 2008.

2.11.2. MOB Transmission Owner Upload

The “MIN_OIL_BURN_TO_DATA” upload template enables a Transmission Owner to upload the time periods for which generators in their transmission district have been requested to be G.2/G.3 compliant.

Data submitted via the MIN_OIL_BURN_TO_DATA upload template always includes a header that defines the following: “Bid Type” (MIN_OIL_BURN_TO_DATA), the user’s ID, the user’s password, and the number of rows of data.

Upload Request File: Header Detail:

An ampersand (&) defines the end of each entry field of the header.

Variable Name	Value	Mandatory
USERID	Valid NYISO user name	Y
PASSWORD	Valid NYISO password	Y
BID_TYPE	MIN_OIL_BURN_TO_DATA	Y
DATA_ROWS	Total number of records in the request: <i>Value must match total data rows in the request file</i>	Y

Request File: Data detail for each record submitted:

A carriage return marks the end of each line of upload data.

Parameter	Data Type	Description
GEN_PTID	NUMBER	Unique integer identifier defined by NYISO
TO_START_DATE_HOUR	MM/DD/YYYY HH24:MM	Start date/time generator is requested to be on MOB (also referred to as the invocation time) Date parameter can be defined as the specific day. Included in the upload per PTID would be 23, 24, or 25 hourly values ⁴ . All hours are identified as hour beginning (HB) in 24-hour time. Times are local (New York) time.
TO_END_DATE_HOUR	MM/DD/YYYY HH24:MM	End date/time generator is requested to be off of MOB (also referred to as the termination time) Date parameter can be defined as the specific day. Included in the upload per PTID would be 23, 24, or 25 hourly values ⁵ . All hours are identified as hour beginning (HB) in 24-hour time. Times are local (New York) time.

Additional Notes:

- The time period (between the TO_Start_Date_Hour and the TO_End_Date_Hour) may extend over midnight, however, the NYISO application will automatically store the data as two separate sets of time stamps. This will facilitate the daily settlement cycle.
- The TO_End_Date_Hour must be later than the TO_Start_Date_Hour
- The TO may submit data records for one or more GEN_PTIDs, for one or more billing days
- TO submitted data may be updated during unlocked periods.

Following successful submission of “MIN_OIL_BURN_TO_DATA”, the NYISO will respond with a Response File, which has the following format.

Response File: TO Header Detail

Variable Name	Value	Mandatory
TIME_STAMP	The time stamp indicating when the NYISO system processed the request	Y
BID_TYPE	MIN_OIL_BURN_TO_DATA	Y
DATA_ROWS	The total number of records processed in the request	Y

Response File: TO Data Detail

Response file data detail is automatically returned for each upload.

Each row that follows includes: Gen PTID, TO_Start_Date_Hour, TO_End_Date_Hour, Validation Status

⁴ For additional information concerning the treatment of 23- and 25-hour days, please refer to NYISO Technical Bulletins 064 (25-hour day) and 088 (23-hour day), both of which are available from the NYISO Web site at <https://www.nyiso.com/manuals-tech-bulletins-user-guides>.

⁵ For additional information concerning the treatment of 23- and 25-hour days, please refer to NYISO Technical Bulletins 064 (25-hour day) and 088 (23-hour day), both of which are available from the NYISO Web site at <https://www.nyiso.com/manuals-tech-bulletins-user-guides>.

Additional Notes:

- The validation status for each data record will be included in the TO response file. The following validation status will be used:
 - Pass Validation: indicating that the generator has submitted data for the same TO_Start_Date_Hour
 - Not Validated: indicating that the generator has not submitted data for that same TO_Start_Date_Hour

Data Validation for Max Oil Consumption:

- Each generator's submittal of its daily total MOBC fuel consumption will be validated against the "max oil" value(s) set for the generator. The fuel consumption value submitted to the NYISO will be eligible for MOBC cost recovery. To the extent the consumption exceeds the registered max oil value, the generator may be requested to supply additional material justifying the fuel consumption.

Example 1:

Request File (MIN_OIL_BURN_TO_DATA):

BID_TYPE=MIN_OIL_BURN_TO_DATA &
USERID=USER1&
PASSWORD=PASSWORD1&
DATA_ROWS=3&
 23000,12/01/2019 09:00,12/01/2019 22:00
 24000,12/01/2019 09:00,12/01/2019 22:00
 25000,12/01/2019 11:00,12/01/2019 23:00

Response File (MIN_OIL_BURN_TO_DATA):

TIME_STAMP=12/02/2019 10:34
BID_TYPE=MIN_OIL_BURN_TO_DATA
DATA_ROWS=3
 23000,12/01/2019 09:00,12/01/2019 22:00,Not Validated
 24000,12/01/2019 09:00,12/01/2019 22:00,Not Validated
 25000,12/01/2019 11:00,12/01/2019 23:00,Not Validated

Example 2: Extending Over Midnight

Request File (MIN_OIL_BURN_TO_DATA):

BID_TYPE=MIN_OIL_BURN_TO_DATA &
USERID=USER1&
PASSWORD=PASSWORD1&
DATA_ROWS=1&
 23000,11/02/2019 08:00,11/04/2019 08:00

Response File (MIN_OIL_BURN_TO_DATA):

TIME_STAMP=12/02/2019 10:34
BID_TYPE=MIN_OIL_BURN_TO_DATA
DATA_ROWS=1
 23000,11/02/2019 08:00,11/02/2019 23:59,Not Validated
 23000,11/03/2019 00:00,11/03/2019 23:59,Not Validated
 23000,11/04/2019 00:00,11/04/2019 08:00,Not Validated

2.11.3. MOB Generator Owner Upload

The “MIN_OIL_BURN_GEN_DATA” upload template enables a Generator Owner to upload their G.2/G.3 compliant time periods and oil consumption data for settlement processing.

Data submitted via the MIN_OIL_BURN_GEN_DATA upload template always includes a header that defines the following: “Bid Type” (MIN_OIL_BURN_GEN_DATA), the user’s ID, the user’s password, and the number of rows of data.

Upload Request File: Header Detail:

An ampersand (&) defines the end of each entry field of the header.

Variable Name	Value	Mandatory
USERID	Valid NYISO user name	Y
PASSWORD	Valid NYISO password	Y
BID_TYPE	MIN_OIL_BURN_GEN_DATA	Y
DATA_ROWS	Total number of records in the request: <i>Value must match total data rows in the request file</i>	Y

Request File: Data detail for each record submitted:

A carriage return marks the end of each line of upload data.

Parameter	Data Type	Description
GEN_PTID	NUMBER	Unique integer identifier defined by NYISO.
TO_START_DATE_HOUR	MM/DD/YYYY HH24:MM	Start date/time that the TO has requested the generator to be on MOB.
GEN_START_DATE_HOUR	MM/DD/YYYY HH24:MM	Start date/time generator began engaging for MOB. Date parameter can be defined as the specific day. Included in the upload per PTID would be 23, 24, or 25 hourly values ⁶ . All hours are identified as hour beginning (HB) in 24-hour time. Times are local (New York) time.
GEN_END_DATE_HOUR	MM/DD/YYYY HH24:MM	End date/time generator finished disengage for MOB. Date parameter can be defined as the specific day. Included in the upload per PTID would be 23, 24, or 25 hourly values ⁷ . All hours are identified as hour beginning (HB) in 24-hour time. Times are local (New York) time.
FUEL_CONSUMPTION	NUMBER (5,2)	Daily fuel consumption value (Barrels) of generator during MOB eligibility period. Data entered may not exceed 2 decimal places.

Additional Notes:

- ⁶ For additional information concerning the treatment of 23- and 25-hour days, please refer to NYISO Technical Bulletins 064 (25-hour day) and 088 (23-hour day), both of which are available from the NYISO Web site at <https://www.nyiso.com/manuals-tech-bulletins-user-guides>.
- ⁷ For additional information concerning the treatment of 23- and 25-hour days, please refer to NYISO Technical Bulletins 064 (25-hour day) and 088 (23-hour day), both of which are available from the NYISO Web site at <https://www.nyiso.com/manuals-tech-bulletins-user-guides>.

- The Gen_End_Date_Hour must be later than the Gen_Start_Date_Hour
- The Generator may submit data records for one or more GEN_PTIDs, for one or more billing days
- Generator submitted data may be updated during unlocked periods.
- The time period (between the Gen_Start_Date_Hour and the Gen_End_Date_Hour) may not extend over midnight. Generator Owners must submit this data as two separate consecutive time periods. Refer to the example section for the two scenarios outlined below.
 - If the date of the TO end time is after the date of the TO start time (e.g., the TO call extends over midnight into the next day), then the Generator Owner must upload two records with two different TO start times
 - the first generator upload record will include the original TO start time, and a generator end time of 23:59
 - the second generator upload record will include a TO start time of 00:00 the next day, and the generator start time of 00:00 the next day
 - If the date of the TO end time is prior to the date of the generator end time (e.g., the generator disengagement time takes them into the next day), the Generator must create two records with the same TO start time:
 - the first record will include the original TO start time and a generator end time of 23:59
 - the second record will include the original TO start time and a generator start time of 00:00

Following successful submission of “MIN_OIL_BURN_TO_DATA”, the NYISO will respond with a Response File, which has the following format.

Response File: Generator Header Detail

Variable Name	Value	Mandatory
TIME_STAMP	The time stamp indicating when the NYISO system processed the request	Y
BID_TYPE	MIN_OIL_BURN_GEN_DATA	Y
DATA_ROWS	The total number of records processed in the request	Y

Response File: Generator Data Detail

Response file data detail is automatically returned for each upload

Each row that follows includes: TO_Start_Date_Hour, Gen PTID, Gen_Start_Date_Hour, Gen_End_Date_Hour, Fuel Consumption, Validation Status

Additional Notes:

- In the event that a generator trips and restarts later during the same day during an G.2/G.3 call, the Generator Owner is requested to enter the entire time period (including the hours the unit was offline) and the fuel consumption for the entire time period.
- The validation status for each data record will be included in the generator response file. The following validation status will be used:

- **Pass Validation:** indicating that the TO has submitted data for the same TO_Start_Date_Hour, and that the time periods submitted by the Generator are within the time bounds established by the generator’s engagement time and disengagement time (see below).
- **Not Validated:** indicating that the TO has not submitted data for that same TO_Start_Date_Hour and billing day (based upon the TO_Start_Date_Hour and Gen_Start_Date_Hour). These records will not be included for settlement determination.
- **Fail Validation:** indicating that the time periods submitted by the Generator are outside of the time bounds established by the generator’s engagement time and disengagement time (see below). These records will not be included for settlement determination.

Note: The engagement and disengagement times for each generator are established during the generator registration process.

- Each Generator will have its own engagement time and disengagement time established during the MOB registration process.
- The record will ‘pass validation’ if (1) the generator start time does not precede the ‘TO invocation time minus the generator engagement time’ **AND** (2) if the generator end time is not later than the ‘TO termination time plus the generator disengagement time’; otherwise the record will ‘fail validation’.

Figure 4: Example Engage Time Eligibility

Generator Time to Engage	TO start time	Gen actual start	Time Period Passes Validation?
3 hours	11am	6am	11am – 3 hours = 8am No
3 hours	11am	8am	11am – 3hours = 8am Yes
3 hours	11am	9am	11am – 3hours = 8am Yes

Figure 5: Example Disengage Time Eligibility

Generator Time to Disengage	TO end time	Gen actual end	Time Period Passes Validation?
2 hours	3pm	1pm	3pm + 2 hours = 5pm Yes
2 hours	3pm	5pm	3pm + 2 hours = 5pm Yes
2 hours	3pm	6pm	3pm + 2 hours = 5pm No

Example 1:

Request File (MIN_OIL_BURN_GEN_DATA):

BID_TYPE=MIN_OIL_BURN_GEN_DATA &
USERID=USER2&
PASSWORD=PASSWORD2&
DATA_ROWS=3&
23000,12/01/2019 09:00,12/01/2019 07:00,12/01/2019 23:50,1915.50
23000,12/02/2019 08:00,12/02/2019 06:30,12/02/2019 16:30,562.70
23000,12/03/2019 04:30,12/03/2019 02:30,12/03/2019 12:50,780.50

Response File (MIN_OIL_BURN_GEN_DATA):

TIME_STAMP=12/23/2019 11:48
BID_TYPE=MIN_OIL_BURN_GEN_DATA
DATA_ROWS=3
12/01/2019 09:00,23000,12/01/2019 07:00,12/01/2019 23:50,1915.50,Pass Validation
12/02/2019 08:00,23000,12/02/2019 06:30,12/02/2019 16:30,562.70,Pass Validation
12/03/2019 04:30,23000,12/03/2019 02:30,12/03/2019 12:50,780.50,Not Validated

Example 2: TO Call Extending Over Midnight

Request File (MIN_OIL_BURN_GEN_DATA):

BID_TYPE=MIN_OIL_BURN_GEN_DATA &
USERID=USER2&
PASSWORD=PASSWORD2&
DATA_ROWS=3&
23000,11/02/2019 08:00,11/02/2019 07:00,11/02/2019 23:59,1225.50
23000,11/03/2019 00:00,11/03/2019 00:00,11/03/2019 23:59,1458.68
23000,11/04/2019 00:00,11/04/2019 00:00,11/04/2019 08:30,984.43

Response File (MIN_OIL_BURN_GEN_DATA):

TIME_STAMP=11/16/2019 11:48
BID_TYPE=MIN_OIL_BURN_GEN_DATA
DATA_ROWS=3
23000,11/02/2019 08:00,11/02/2019 09:00,11/02/2019 23:59,1225.0,Pass Validation
23000,11/03/2019 00:00,11/03/2019 00:00,11/03/2019 23:59,1458.0,Pass Validation
23000,11/04/2019 00:00,11/04/2019 00:00,11/04/2019 09:00,984.0,Pass Validation

Example 3: TO Call Ends Prior to Midnight, Generator Extends Over Midnight

Request File (MIN_OIL_BURN_GEN_DATA):

BID_TYPE=MIN_OIL_BURN_GEN_DATA &
USERID=USER2&
PASSWORD=PASSWORD2&
DATA_ROWS=2&
23000,11/05/2019 08:00,11/05/2019 07:00,11/05/2019 23:59,1225.0
23000,11/05/2019 08:00,11/06/2019 00:00,11/06/2019 00:30,95.5

Response File (MIN_OIL_BURN_GEN_DATA):

TIME_STAMP=11/16/2019 11:48
BID_TYPE=MIN_OIL_BURN_GEN_DATA
DATA_ROWS=2
23000,11/05/2019 08:00,11/05/2019 07:00,11/05/2019 23:59,1225.0,Pass Validation
23000,11/05/2019 08:00,11/06/2019 00:00,11/06/2019 00:30,95.5,Pass Validation

2.11.4. MOB Download

The “MIN_OIL_BURN_DETAIL” download template enables a Transmission Owner or Generator Owner to download the MOB data submitted in support of G.2/G.3 compliance. The same data is available and viewable to both the Transmission Owner and the Generator Owner.

The user may request MOB data for a single PTID or multiple PTIDs, or all by leaving the PTID field blank.

Download Request File: Header Detail

An ampersand (&) defines the end of each entry field of the header.

Variable Name	Value	Mandatory
USERID	Valid NYISO user name	Y
PASSWORD	Valid NYISO password	Y
QUERY_TYPE	MIN_OIL_BURN_DETAIL	Y
BILLING_MONTH	MM/YYYY	Y
PTID	PTID exactly as shown in MIS: <i>One to ten supported, comma separated</i>	N
START_DATE	MM/DD/YYYY HH24:MM <i>MM/YYYY must match the BILLING_MONTH field</i>	N
END_DATE	MM/DD/YYYY HH24:MM <i>MM/YYYY must match the BILLING_MONTH field</i>	N
VERSION	Invoice version number: <i>VERSION=0 will return the latest data received</i>	N

Following successful submission of “MIN_OIL_BURN_DETAIL”, the NYISO will respond with a Response File, which has the following format:

Response File: Header Detail

Variable Name	Value	Mandatory
TIME_STAMP	The time stamp indicating when the NYISO system processed the request	Y
BID_TYPE	MIN_OIL_BURN_DETAIL	Y
DATA_ROWS	The total number of records processed in the request	Y
BILLING_MONTH	The month being returned	Y

Response File -Data Detail

The response is provided in CSV format:

Each data row includes: billing date, version, generator PTID, Name of PTID, TO start date/time, TO end date/time, Gen start date/time, Gen end date/time, Gen Fuel Consumption, TO Update Date and Hour, Generator Update Date and Hour, Gen Validation Status, TO Validation Status, Generator Update User, TO Update User, Billed Flag

Example 1:

Request File (MIN_OIL_BURN_DETAIL):

QUERY_TYPE=MIN_OIL_BURN_DETAIL &
USERID=USER2&
PASSWORD=PASSWORD1&
BILLING_MONTH=12/2019&
START_DATE=12/01/2019 00:00&
END_DATE=12/04/2019 00:00&
VERSION=0

Response File (MIN_OIL_BURN_DETAIL):

TIME_STAMP=12/23/2019 11:56
BID_TYPE=MIN_OIL_BURN_DETAIL
DATA_ROWS=3
BILLING_MONTH=12/2019&
12/01/2019,0,23000,Generator1,12/01/2019 09:00,12/1/2019 22:30,12/01/2019 07:00,12/01/2019
23:50,1915.50,Pass Validation,Pass Validation,USER2,USER1,N
12/02/2019,0, 23000,Generator1,12/02/2019 08:00,12/02/2019 15:30, 12/02/2019 06:30,12/01/2019
16:30,562.70,Pass Validation,Pass Validation,USER2,USER1,N
12/03/2019,0, 23000,Generator1,12/03/2019 04:30,12/03/2019 11:15,12/03/2019 02:30,12/01/2019
12:50,780.50,Not Validated,,USER2,USER1,N

2.12. Dual Channel Generator Upload and Download Templates

2.12.1. Dual Channel Generator Transmission Owner Upload

The “DUAL_CHANNEL_GEN_DATA” upload template enables a Meter Authority to upload dual channel generator billing quality hourly injection MW values and the hourly withdrawal MW values to the NYISO for one or more specific LESR generator or Withdrawal Eligible Generators assigned to that Meter Authority, by PTID. Meter data uploads for Aggregations **must** be done through the Metering API.

Data submitted via the DUAL_CHANNEL_GEN_DATA upload template always includes a header that defines the following: “Bid Type” (DUALCHANNEL_GEN_DATA), the user’s ID, the user’s password, and the number of rows of data.

Request File: Header Detail

An ampersand (&) defines the end of each entry field of the header.

Variable Name	Value	Mandatory
USERID	Valid NYISO user name	Y
PASSWORD	Valid NYISO password	Y
BID_TYPE	DUAL_CHANNEL_GEN_DATA	Y
DATA_ROWS	Total number of records in the request: <i>Value must match total data rows in the request file</i>	Y
DATA_SUM	Total sum of MWs in the request: <i>Value must match the sum of the hourly injection MWs and the hourly withdrawal MWs included in the request file</i>	N
UPLOAD_RESPONSE	Y or N: defaults to N <i>N: Only response file parameters returned</i> <i>Y: Response file parameters returned followed by the data records included in the request file</i>	N
REQUEST_ID	30 character alphanumeric	N

Request File: Data detail for each record submitted:

A carriage return marks the end of each line of upload data.

Parameter	Data Type	Description
DATE_HOUR	MM/DD/YYYY HH24:MM	Date parameter can be defined as the specific day. Included in the upload per PTID would be 23, 24, or 25 hourly values ⁸ . All hours are identified as hour beginning (HB) in 24-hour time. Times are local (New York) time.
GEN PTID	NUMBER	Unique integer identifier defined by the NYISO. Only dual channel generators supported. PTID must correspond to LESR Generator Type or must have the ESR attribute for the submitted Date_Hour.
MA REPORTED INJECTION MW	NUMBER (21,4)	Value reported by the Meter Authority must be greater than or equal to zero for each PTID. Data entered may not exceed 4 decimal places. Required field.
MA REPORTED WITHDRAWAL MW	NUMBER (21,4)	Value reported by the Meter Authority must be less than or equal to zero for each PTID. Data entered may not exceed 4 decimal places. Required field.

Following successful submission of “DUAL_CHANNEL_GEN_DATA”, the NYISO will respond with a Response File, which has the following format. Request files which include single channel generator data will not be processed, and a resulting error message will be returned to the user.

Response File: Header Detail

Variable Name	Value	Mandatory
TIME_STAMP	The time stamp indicating when the NYISO system processed the request	Y
BID_TYPE	DUAL_CHANNEL_GEN_DATA	Y
REQUEST_ID	The value submitted to the NYISO in the request file	N
DATA_ROWS	The total number of records processed in the request	Y
DATA_SUM	Sum of the MA reported injection MWhs and the MA reported withdrawal MWhs processed in the request file	Y

Response File: Data Detail

Response file data detail is only returned when the request file includes UPLOAD_RESPONSE=Y

Each row that follows includes summation data by PTID: Gen PTID, Sum of MA Reported Injection MWh, Sum of MA Reported Withdrawal MWh, Net of MA Reported MWh⁹

Example 1:

⁸ For additional information concerning the treatment of 23- and 25-hour days, please refer to NYISO Technical Bulletins 064 (25-hour day) and 088 (23-hour day), both of which are available from the NYISO Web site at <https://www.nyiso.com/manuals-tech-bulletins-user-guides>.

⁹ The sum of the MA Reported Injection MWh and the MA Reported Withdrawal MWh.

Request File (DUAL_CHANNEL_GEN_DATA):

```

BID_TYPE=DUAL_CHANNEL_GEN_DATA&
USERID=USER1&
PASSWORD=PASSWORD1&
DATA_ROWS=6&
DATA_SUM=132.8419&
REQUEST_ID=2201200523000&
UPLOAD_RESPONSE=Y&
12/01/2019 00:00,23456,100,0
12/01/2019 01:00,23456,75.5,0
12/01/2019 02:00,23456,20,0
12/01/2019 03:00,23456,0,-24.5025
12/01/2019 04:00,23456,0,-33.6556
12/01/2019 05:00,23456,5.5,-10
    
```

Response File (DUAL_CHANNEL_GEN_DATA):

```

TIME_STAMP=1202/2019 10:34
BID_TYPE=DUAL_CHANNEL_GEN_DATA
REQUEST_ID=2201200523000
DATA_ROWS=6
DATA_SUM=132.8419
23456,201,-68.1581,132.8419
    
```

2.12.2. Dual Channel Generator Transmission Owner Download

The “DUAL_CHANNEL_GEN_DETAIL” download template enables a Generator Owner or Meter Authority to download dual channel generator hourly MW data for a specified period within a month. Meter data downloads for Aggregations **must** be done through the Metering API.

The user can enter a single dual channel generator, or subzone PTID, or select up to 10 PTIDs at one time. If the user is requesting data for a specific period within a month, the user should enter the specific month in the BILLING_MONTH field and use the START_DATE and END_DATE parameters to specify the period.

Data requests submitted via the DUAL_CHANNEL_GEN_DETAIL download template always includes a header that defines the following: “Query Type” (DUAL_CHANNEL_GEN_DETAIL), the user’s ID, the user’s password, and the billing month.

Download Request File: Header Detail

An ampersand (&) defines the end of each entry field of the header.

Variable Name	Value	Mandatory
USERID	Valid NYISO user name	Y
PASSWORD	Valid NYISO password	Y
QUERY_TYPE	DUAL_CHANNEL_GEN_DETAIL	Y
BILLING_MONTH	MM/YYYY	Y
PTID	PTID exactly as shown in MIS	N

	Includes only Generator Types of LESR or Withdrawal Eligible Generators <i>One to ten supported, comma separated</i>	
SUBZONE_PTID	Subzone PTID exactly as shown in MIS. Only LESR generators and Withdrawal Eligible Generators shall be included for the requested subzone <i>One subzone PTID will return all valid data; multiple or no subzone PTIDs will only return all valid data when data row count < 50,000 records</i>	N
START_DATE	MM/DD/YYYY HH24:MM <i>MM/YYYY must match the BILLING_MONTH field</i>	N
END_DATE	MM/DD/YYYY HH24:MM <i>MM/YYYY must match the BILLING_MONTH field</i>	N
VERSION	Invoice version number: <i>VERSION=0 will return the latest data received</i>	N
UPDATE_TIME_START	MM/DD/YYYY HH24:MM	N
UPDATE_TIME_END	MM/DD/YYYY HH24:MM	N

Following successful submission of “DUAL_CHANNEL_GEN_DETAIL”, the NYISO will respond with a Response File, which has the following format. Request files which include single channel generators will not be processed, and a resulting error message will be returned to the user.

Response File: Header Detail

Variable Name	Value	Mandatory
TIME_STAMP	The time stamp indicating when the NYISO system processed the request	Y
BID_TYPE	DUAL_CHANNEL_GEN_DETAIL	Y
DATA_ROWS	The total number of records processed in the request	Y
START_DATE	The start date of the data range returned (MM/YYYY)	Y
END_DATE	The end date of the data range returned (MM/YYYY)	Y
BILLING_MONTH	The month being returned (MM/YYYY)	Y

Response File: Data Detail

The response is provided in CSV format.

Each data row includes: date and hour, billing date, version, Meter Authority, PTID, Name of PTID, MA Reported MWh¹⁰, Telemetry Avg Actual MWh¹¹, MA Reported Injection MWh, Telemetry Avg Actual Injection MWh, MA Reported Withdrawal MWh , Telemetry Avg Actual Withdrawal MWh, MA Last Updated, MA Last Updated User, Billed Flag

Example 1:

Request File (DUAL_CHANNEL_GEN_DETAIL):

```
BID_TYPE=DUAL_CHANNEL_GEN_DETAIL&
USERID=USER1&
PASSWORD=PASSWORD1&
BILLING_MONTH=12/2019&
```

Response File (DUAL_CHANNEL_GEN_DETAIL):

```
TIME_STAMP=12/03/2019 12:28
BID_TYPE=DUAL_CHANNEL_GEN_DETAIL
DATA_ROWS=6
START_DATE=12/2019
END_DATE=12/2019
BILLING_MONTH=12/2019
12/01/2019 00:00,12/01/2019,0,MA Name,23456,Generator1,100.1234,100,100.1234, 100,0,0,12/03/2019
22:30,USER1,N
12/01/2019 01:00,12/01/2019,0,MA Name,23456,Generator1,75.5,75.5,75.5,75.5,0,0,12/03/2019
22:30,USER1,N
12/01/2019 02:00,12/01/2019,0,MA Name,23456,Generator1,20,20,20,20,0,12/03/2019 22:30,USER1,N
12/01/2019 03:00,12/01/2019,0,MA Name,23456,Generator1,0,0,24.50,24.5,-24.50,-24.5,12/03/2019
22:30,USER1,N
12/01/2019 04:00,12/01/2019,0,MA Name,23456,Generator1,0,0,33.65,33.65,-33.65,-33.65,12/03/2019
22:30,USER1,N
12/01/2019 05:00,12/01/2019,0,MA Name,23456,Generator1,5.5,5.5,10,10,-4.5,-4.5,12/03/2019
22:30,USER1,N
```

¹⁰ MA Reported MWh = Sum of the MA Reported Injection MWh and MA Reported Withdrawal MWh values for the hour

¹¹ Telemetry Avg Actual MWh = Sum of the Telemetry Avg Actual Injection MWh and Telemetry Avg Actual Withdrawal MWh values for the hour

3. Upload/Download Error Messages

The SDX will provide the user with an error message for requests which cannot be processed.

During upload/download processing, only the first error encountered in the request file will be returned to the user.

SDX Error Code/Framework Messages
UPLOAD/DOWNLOAD ERROR-- SDX-10000 Internal application error
UPLOAD/DOWNLOAD ERROR-- SDX-10001 Unsupported template type '<P1>' specified in request. P1 = the unsupported template name.
UPLOAD/DOWNLOAD ERROR-- SDX-10002 Unsupported parameter '<P1>' specified in request. P1=the unsupported parameter.
UPLOAD/DOWNLOAD ERROR-- SDX-10003 Missing required template parameter '<P1>'. P1 = the required parameter that is missing.
UPLOAD/DOWNLOAD ERROR-- SDX-10004 Missing value for template parameter '<P1>'. P1=the missing parameter.
UPLOAD/DOWNLOAD ERROR-- SDX-10005 '<P1>' parameter value '<P2>' is not valid. Must be set to '<P3>' P1=the parameter name, P2=the parameter value, P3=valid values or format string.
UPLOAD/DOWNLOAD ERROR-- SDX-10006 The '<P1>' parameter value '<P2>' is not a valid number. P1=the parameter name, P2=the parameter value.
UPLOAD/DOWNLOAD ERROR-- SDX-10007 The file type in the request is not recognized.
UPLOAD/DOWNLOAD ERROR-- SDX-10008 No file specified in request.
UPLOAD/DOWNLOAD ERROR-- SDX-10009 Invalid username/password; logon denied.
UPLOAD/DOWNLOAD ERROR-- SDX-10010 Maximum upload threshold exceeded; <P1> data rows per request. P1=the maximum data rows upload value.
UPLOAD/DOWNLOAD ERROR-- SDX-10011 No data rows in request.
UPLOAD/DOWNLOAD ERROR-- SDX-10012 Failed data rows count check. Number of data rows sent in request: <P1>; Data rows specified in header: <P2> P1=number of rows uploaded, P2=number of rows specified in header.
UPLOAD/DOWNLOAD ERROR-- SDX-10013 Failed data rows sum check. Sum of data values sent in request: <P1>; Data sum specified in header:<P2> P1=actual data sum value, P2=data sum value in header.

<p>UPLOAD/DOWNLOAD ERROR-- SDX-10014 User '<P1>' not meter qualified. P1=the userid.</p>
<p>UPLOAD/DOWNLOAD ERROR-- SDX-10015 Failed to process request. User '<P1>' has a request active for template type <P2> for <P3> of <P4> minutes P1=the userid , P2=the template type. P3=number of minutes query has been running. P4=time period.</p>
<p>UPLOAD/DOWNLOAD ERROR-- SDX-10016 Failed to read request.</p>
<p>UPLOAD/DOWNLOAD ERROR-- SDX-10017 '<P1> parameter value <P2> exceeds maximum length of <P3> P1=the parameter , P2=the parameter value, P3=defined length of field.</p>
<p>UPLOAD/DOWNLOAD ERROR-- SDX-10018 User <P1> is not Min Oil Burn Gen Qualified. P1=the User ID.</p>
<p>UPLOAD/DOWNLOAD ERROR-- SDX-10019 User <P1> is not Min Oil Burn TO Qualified. P1=the User ID.</p>
<p>UPLOAD/DOWNLOAD ERROR— SDX-10020 ERROR: Password for this account has expired. Please contact your Organization's Administrator for additional information.</p>
<p>SDX Error Code/Common Application Messages</p>
<p>UPLOAD/DOWNLOAD ERROR-- SDX-20001 Application error occurred while processing request.</p>
<p>UPLOAD/DOWNLOAD ERROR-- SDX-20002 Missing required template parameter '<P1>'. P1 = the required parameter that is missing.</p>
<p>UPLOAD/DOWNLOAD ERROR-- SDX-20003 The BILLING_MONTH must be in the format of MM/YYYY [<P1>]. P1 = Submitted Billing Month.</p>
<p>UPLOAD/DOWNLOAD ERROR-- SDX-20004 The BILLING_MONTH, START_DATE and END_DATE month and year must be the same [<P1>]. P1 = billing month, start date, end date.</p>
<p>UPLOAD/DOWNLOAD ERROR-- SDX-20005 User can only enter a SUBZONE_PTID or a PTID query parameter.</p>
<p>UPLOAD/DOWNLOAD ERROR-- SDX-20006 Invalid Date format. Minutes must be set to 00 [<P1>]. P1 = Submitted Date.</p>
<p>UPLOAD/DOWNLOAD ERROR-- SDX-20007 Invalid Date format. Format must be MM/dd/yyyy HH:mm [<P1>]. P1 = Submitted Date.</p>
<p>UPLOAD/DOWNLOAD ERROR-- SDX-20008 The specified DATA_SUM <P1> does not match the MWs sent <P2>. P1 = Submitted data sum, P2 = Total MWs Submitted.</p>
<p>UPLOAD/DOWNLOAD ERROR-- SDX-20009 Hour 25 not valid for Date specified [<P1>]. P1 = Submitted Hour 25 date.</p>

<p>UPLOAD/DOWNLOAD ERROR-- SDX-20010 Hour 2 not valid for 23 hour day [<P1>]. P1 = Submitted Hour 2 date.</p>
<p>UPLOAD/DOWNLOAD ERROR-- SDX-20011 Invalid hour value [<P1>]. P1 = Submitted hour.</p>
<p>UPLOAD/DOWNLOAD ERROR-- SDX-20012 No Date specified.</p>
<p>UPLOAD/DOWNLOAD ERROR-- SDX-20013 Invalid numeric value for <P1> [<P2>] P1 = Submitted Parameter name, P2= Submitted Parameter value.</p>
<p>UPLOAD/DOWNLOAD ERROR-- SDX-20014 Only 4 digits allowed after decimal in MW value [<P1>] P1=the MW value in error.</p>
<p>UPLOAD/DOWNLOAD ERROR-- SDX-20016 User <P1> not authorized for PTID <P2>. P1 = Oracle username, P2 = PTID.</p>
<p>UPLOAD/DOWNLOAD ERROR-- SDX-20017 User can only enter up to 10 PTIDs [<P1>]. P1 = Submitted PTIDs.</p>
<p>UPLOAD/DOWNLOAD ERROR-- SDX-20018 Invoice Date is locked for meter updates for this date [<P1>] for PTID <P2>. P1 = Submitted Date. P2=Submitted PTID.</p>
<p>UPLOAD/DOWNLOAD ERROR-- SDX-20019 No download parameters entered. Cannot perform download.</p>
<p>UPLOAD/DOWNLOAD ERROR-- SDX-20020 Invalid data row format [<P1>]. P1 = Submitted data row.</p>
<p>UPLOAD/DOWNLOAD ERROR-- SDX-20021 User <P1> not authorized to submit meter data. P1 = Oracle username.</p>
<p>UPLOAD/DOWNLOAD ERROR-- SDX-20022 Duplicate <P1> records sent for Date <P2> and PTID <P3>. P1 = Submitted PTID type, P2 = Submitted Date, P3 = Bus PTID</p>
<p>UPLOAD/DOWNLOAD ERROR-- SDX-20023 Inputted generator <P1> does not exist. P1 = PTID</p>
<p>UPLOAD/DOWNLOAD ERROR-- SDX-20024 Invalid request. <P1> may not be less than <P2>. P1 = Submitted Date, P2 = Date</p>
<p>UPLOAD/DOWNLOAD ERROR-- SDX-20025 Data cannot be submitted for PTID <P1> for Billing Date <P2>. P1 = PTID, P2 = Date</p>
<p>UPLOAD/DOWNLOAD ERROR— SDX-20026 Failed to download data.</p>
<p>SDX Error Code/Application Messages – Load_Bus_Hour_Data/Load_Bus_Hour_Detail</p>

<p>UPLOAD/DOWNLOAD ERROR-- SDX-20101 Failed to update Bus Meter Data for user '<P1>' P1 = Oracle username.</p>
<p>UPLOAD/DOWNLOAD ERROR-- SDX-20102 Error occurred while updating Bus Meter Data records <P1> through <P2>. P1 = Update range start value, P2 = Update range end value.</p>
<p>UPLOAD/DOWNLOAD ERROR-- SDX-20103 Failed to download Bus Meter Data for user '<P1>'. P1 = Oracle username.</p>
<p>UPLOAD/DOWNLOAD ERROR-- SDX-20104 PTID <P1> is not meter qualified. P1 = Submitted PTID.</p>
<p>UPLOAD/DOWNLOAD ERROR-- SDX-20105 Bus is defunct. Insert/Update of data not permitted for ptid <P1>. P1 = Bus PTID.</p>
<p>UPLOAD/DOWNLOAD ERROR-- SDX-20107 Missing MLoad for hour <P1> for subzone <P2> P1= the hour timestamp, P2= the subzone.</p>
<p>UPLOAD/DOWNLOAD ERROR-- SDX-20108 No Bus values found for subzone <P1>. P1= the subzone.</p>
<p>SDX Error Code/Application Messages – Tie_Gen_Subzone_Data/Tie_Gen_Subzone_Detail</p>
<p>UPLOAD/DOWNLOAD ERROR-- SDX-20201 Failed to update Tie Gen Subzone Data for user '<P1>'. P1=Oracle username.</p>
<p>UPLOAD/DOWNLOAD ERROR-- SDX-20202 Error occurred while updating Tie Gen Subzone Data records <P1> through P2>. P1=Beginning record, P2=Ending record.</p>
<p>UPLOAD/DOWNLOAD ERROR-- SDX-20203 Generator is defunct. Insert/Update of data not permitted for ptid <P1>. P1=the ptid.</p>
<p>UPLOAD/DOWNLOAD ERROR-- SDX-20204 The MW value <P1> for PTID <P2> can not be negative. P1=the negative MW value, P2=the ptid.</p>
<p>UPLOAD/DOWNLOAD ERROR-- SDX-20205 Tie Gen Subzone Detail download failed for user <P1>. P1=the userid.</p>
<p>UPLOAD/DOWNLOAD ERROR-- SDX-20206 User can only enter up to 10 subzone PTIDs [<P1>]. P1=the list of subzone ptids.</p>
<p>UPLOAD/DOWNLOAD ERROR-- SDX-20207 Query returns more than <P1> max allowed rows. Please enter specific Subzone PTIDs. P1=maximum number of rows allowed.</p>
<p>UPLOAD/DOWNLOAD ERROR-- SDX-20208 Only one SUBZONE_PTID parameter allowed [<P1>]. P1=the subzone ptid value.</p>

<p>UPLOAD/DOWNLOAD ERROR-- SDX-20209 The <P1> Tie Ptid <P2> for Date <P3> is locked for updates. P1=external or internal tie, P2=PTID of tie, P3=billing date.</p>
<p>UPLOAD/DOWNLOAD ERROR— SDX-20210 Can not upload LESR or participating ESR Generators for PTID <P1>. Please use DUAL_CHANNEL_GEN_DATA upload for this data. P1=Submitted PTID.</p>
<p>UPLOAD/DOWNLOAD ERROR-- SDX-20812: Generator <P1> aggregation meter data shall not be allowed to be uploaded or downloaded using SDX. P1=the PTID.</p>
<p>SDX Error Code/Application Messages – Daily_Rec_Dollar/Daily_Rec_MWH</p>
<p>UPLOAD/DOWNLOAD ERROR-- SDX-20301 Failed to download daily mwh data.</p>
<p>UPLOAD/DOWNLOAD ERROR-- SDX-20302 Failed to download daily dollar data.</p>
<p>UPLOAD/DOWNLOAD ERROR-- SDX-20303 The organization: <P1> is not authorized for supplied user. P1=the organization name.</p>
<p>SDX Error Code/Application Messages – Station_Power_Report</p>
<p>UPLOAD/DOWNLOAD ERROR-- SDX-20401 Failed to download station power data.</p>
<p>UPLOAD/DOWNLOAD ERROR-- SDX-20402 Invalid or incomplete Month/Version. Invoice must be complete to download Station Power.</p>
<p>SDX Error Code/Application Messages – Invoice_Hist</p>
<p>UPLOAD/DOWNLOAD ERROR-- SDX-20501 User <P1> not authorized to view Invoice History Data. P1=the userid.</p>
<p>UPLOAD/DOWNLOAD ERROR-- SDX-20502 Failed to download Invoice History Data.</p>
<p>SDX Error Code/Application Messages – Subzone_Load</p>
<p>UPLOAD/DOWNLOAD ERROR-- SDX-20601 Failed to download subzone load data.</p>
<p>SDX Error Code/Application Messages – Min_Oil_Burn_Gen_Data, Min_Oil_Burn_TO_Data, Min_Oil_Burn_Detail</p>
<p>UPLOAD/DOWNLOAD ERROR-- SDX-20701 Start Date entered is before the start of the Min Oil Program.</p>
<p>UPLOAD/DOWNLOAD ERROR-- SDX-20702 The end date cannot be before the start date.</p>
<p>UPLOAD/DOWNLOAD ERROR-- SDX-20703 The dates entered cannot span over 2 days. Please split into 2 lines.</p>
<p>UPLOAD/DOWNLOAD ERROR-- SDX-20704 The fuel consumption cannot equal or exceed 10,000. It cannot be negative. It cannot extend past 2 decimal places.</p>

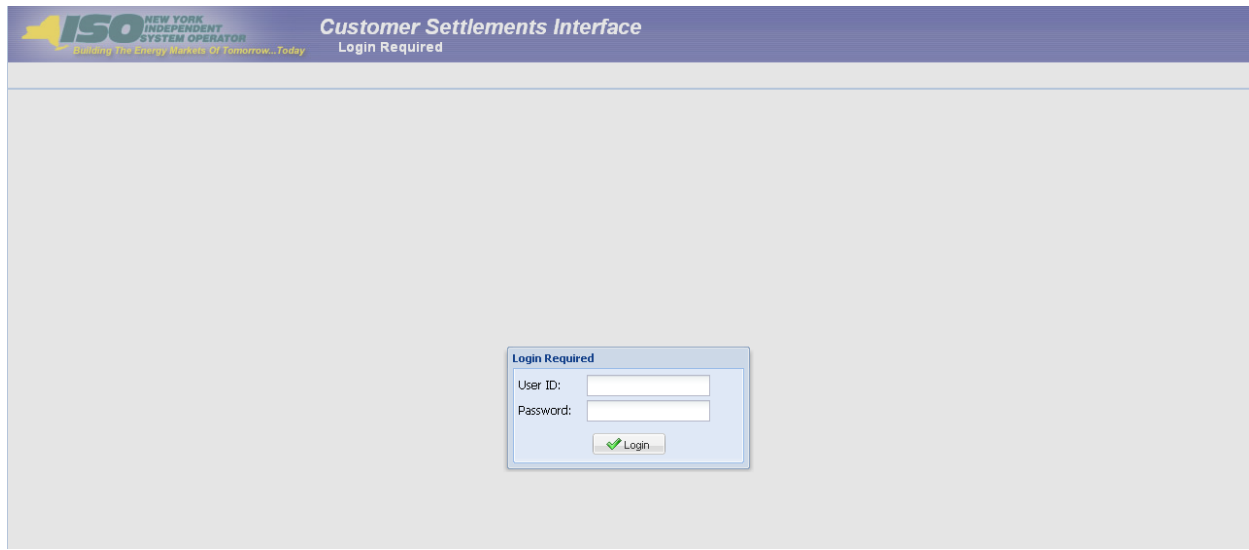
<p>UPLOAD/DOWNLOAD ERROR-- SDX-20705 Invoice Date is locked for Min Oil Burn updates. P1=the parameter name, P2=the parameter value.</p>
<p>UPLOAD/DOWNLOAD ERROR-- SDX-20706 Generator is not in the Min Oil Burn Program.</p>
<p>UPLOAD/DOWNLOAD ERROR-- SDX-20707 Error occurred while updating MOB record.</p>
<p>UPLOAD/DOWNLOAD ERROR-- SDX-20708 You do not have the correct access to upload data to the generator entered.</p>
<p>UPLOAD/DOWNLOAD ERROR-- SDX-20709 The date entered is not in the correct format or it is not a real date.</p>
<p>UPLOAD/DOWNLOAD ERROR-- SDX-20710 A maximum of ten generator PTIDs can be supplied in the download request. Limit exceeded.</p>
<p>UPLOAD/DOWNLOAD ERROR-- SDX-20711 User is not Min Oil Burn Gen Qualified.</p>
<p>UPLOAD/DOWNLOAD ERROR-- SDX-20712 User is not Min Oil Burn TO Qualified.</p>
<p>UPLOAD/DOWNLOAD ERROR— SDX-20713 You can not enter three separate entries with the same TO Invocation time.</p>
<p>SDX Error Code/Application Messages – Dual_Channel_Data</p>
<p>UPLOAD/DOWNLOAD ERROR-- SDX-20801 Hourly Injection MW Values must be greater than or equal to 0.0000 '<P1>' P1 = Hourly Injection MW Value</p>
<p>UPLOAD/DOWNLOAD ERROR-- SDX-20802 Hourly Withdrawal MW Values must be less than or equal to 0.0000 '<P1>' P1 = Hourly Withdrawal MW Value</p>
<p>UPLOAD/DOWNLOAD ERROR-- SDX-20803 The PTID does not match a LESR Generator or participating ESR Generator '<P1>' P1 = Generator PTID</p>
<p>—UPLOAD/DOWNLOAD ERROR— SDX-20804 Error occurred while updating LESR or participating ESR Generators <P1> through <P2>. P1=Beginning record, P2=Ending record.</p>

4. Using Customer Settlements Interface

The Customer Settlements Interface (CSI) Main Menu provides authorized MPs with access to their invoice reports, daily reconciliation data, metering reconciliation data, working capital data, and the global, TSC and NTAC rates for which they have permissions.

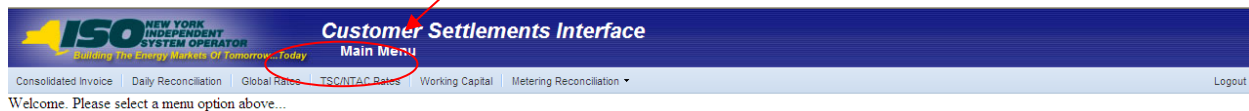
Users will access the CSI using the same MIS login and password that is used to access Marketplace Bidding and Scheduling.

Figure 6: User Login



The Customer Settlements Interface **subheading** will display the current option selected by the user.

Figure 7: CSI Main Menu



4.1. CSI System Requirements

The following requirements have been defined to use the Customer Settlements Interface.

Browser:

Windows Internet Explorer® (version 7.0)

Note: The zoom functionality in Internet Explorer® Version 7 may cause some controls to become disabled. Please set zoom level at 100% to ensure all controls function properly.

Mozilla Firefox™ (version 3.5)

Javascript setting: Enabled

Minimum Screen Resolution: 1024x768 page resolution

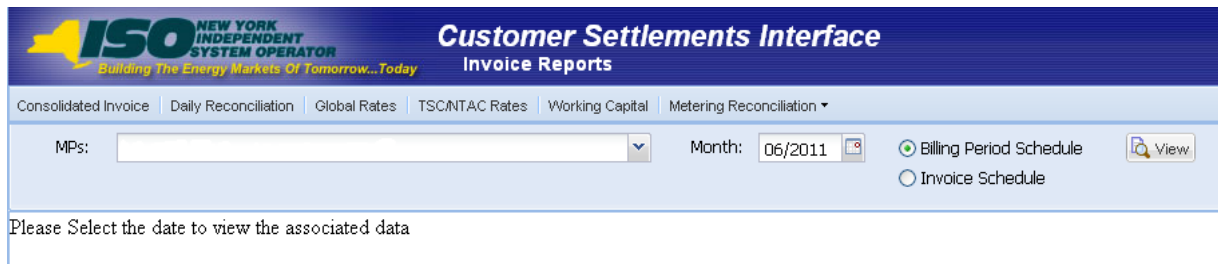
Internet Connection

4.2. Consolidated Invoice

The Consolidated Invoice option will provide the user with the choice of requesting their invoice summary or one of their invoice detail reports.

4.2.1. Consolidated Invoice Query

Figure 8: Invoice Reports - Query



The screenshot shows the 'Customer Settlements Interface' with a sub-header 'Invoice Reports'. A navigation bar includes links for 'Consolidated Invoice', 'Daily Reconciliation', 'Global Rates', 'TSC/NTAC Rates', 'Working Capital', and 'Metering Reconciliation'. The main form area contains a dropdown menu for 'MPs', a date selector for 'Month' set to '06/2011', and two radio buttons: 'Billing Period Schedule' (selected) and 'Invoice Schedule'. A 'View' button is located to the right of the radio buttons. Below the form, a message reads: 'Please Select the date to view the associated data'.

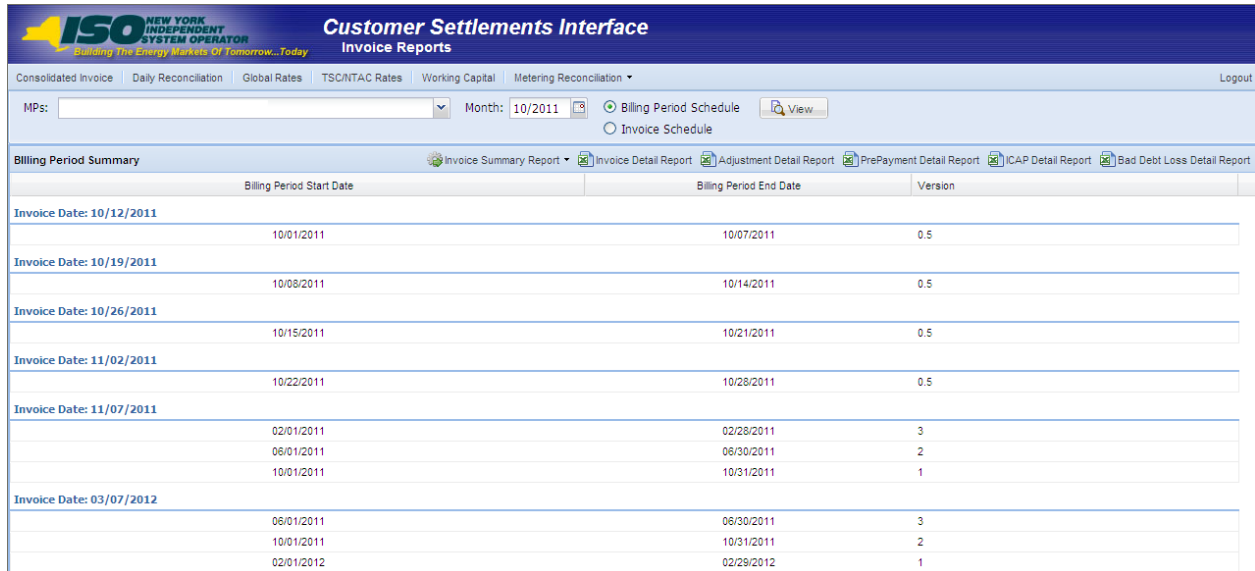
The query for all invoice reports include the selection of the MP organization, the month and either the **Billing Period Schedule** or the **Invoice Schedule**. MPs may query Consolidated Invoice data for the three year period ending with the current month.

Billing Period Schedule (default): provides MPs with the **invoice dates which include the selected billing month or portions thereof**. This includes invoices which have already been issued and may include the current invoice. This will not include future invoices.

Invoice Schedule: provides MPs with the **invoice dates which occur in the month selected**. This includes invoices which have already been issued and may include the current invoice. This will not include future invoices.

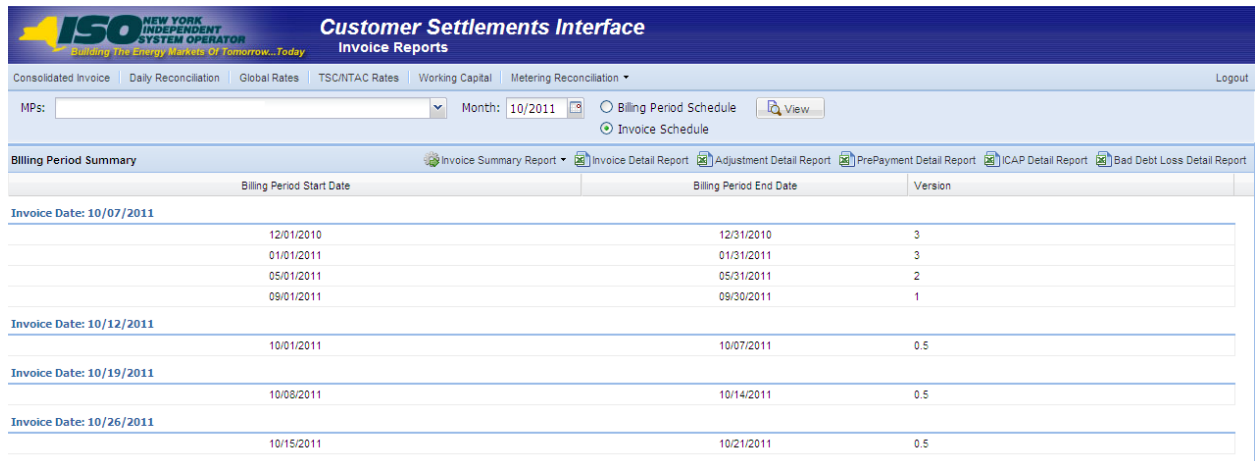
The user enters the filter criteria and clicks on the **View** button. The screen will be refreshed to include the invoices corresponding to the selection criteria. The user will be able to view all applicable invoice dates and their assigned billing periods. Each billing period listed will include their billing period start date, billing period end date and billing period version.

Figure 9: Invoice Reports - Query Response - Billing Period Schedule



Invoice Date	Billing Period Start Date	Billing Period End Date	Version
Invoice Date: 10/12/2011	10/01/2011	10/07/2011	0.5
Invoice Date: 10/19/2011	10/08/2011	10/14/2011	0.5
Invoice Date: 10/26/2011	10/15/2011	10/21/2011	0.5
Invoice Date: 11/02/2011	10/22/2011	10/28/2011	0.5
Invoice Date: 11/07/2011	02/01/2011	02/28/2011	3
	06/01/2011	06/30/2011	2
	10/01/2011	10/31/2011	1
Invoice Date: 03/07/2012	06/01/2011	06/30/2011	3
	10/01/2011	10/31/2011	2
	02/01/2012	02/29/2012	1

Figure 10: Invoice Reports - Query Response - Invoice Schedule



Invoice Date	Billing Period Start Date	Billing Period End Date	Version
Invoice Date: 10/07/2011	12/01/2010	12/31/2010	3
	01/01/2011	01/31/2011	3
	05/01/2011	05/31/2011	2
	09/01/2011	09/30/2011	1
Invoice Date: 10/12/2011	10/01/2011	10/07/2011	0.5
Invoice Date: 10/19/2011	10/08/2011	10/14/2011	0.5
Invoice Date: 10/26/2011	10/15/2011	10/21/2011	0.5

4.2.2. Invoice Reports

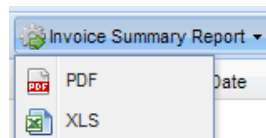
Following the query response in the previous section, the user may elect to view the invoice summary report or one of the invoice detail reports.

In order to view any of the invoice reports, the user will select an invoice by highlighting the billing periods associated with the invoice desired, and click on one of the report options.

4.2.3. Invoice Summary Report

Users that click on the Invoice Summary Report button will have an option to choose the format output of PDF or XLS.

Figure 11: Invoice Summary Report - Report Format Selection



After the user clicks on the **PDF** or **XLS** button, the resulting report will be displayed to the user in the format specified.

Figure 12: Invoice Summary Report - PDF Output

NYISO Market Participant Invoice Dated _____					
Market Participant Name:					
	Sep-2011 Initial Settlement Version 1	May-2011 4 Month Settlement Version 2	Dec-2010 Final Bill Close-out Version 3	Jan-2011 Final Bill Close-out Version 3	Total
Monthly Payments/(Charges)					
Power Supplier	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Transmission Customer	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Transmission Congestion Contract Holder	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Transmission Owner	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Demand Response Customer	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Virtual Bidding Customer	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Settlement Subtotal	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Previous Version Settlement Subtotal	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Total Current Settlement Subtotal	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Adjustments					
Interest Payment to (Charge to) Market Participant					
Current Invoice Payment to (Charge to) Market Participant	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Prepayments					
Net Payment to (Charge to) Market Participant	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Working Capital Cash Transactions					\$0.00
ICAP Transaction to Market Participant					\$0.00
Bad Debt Loss					\$0.00
				Invoice Total	\$0.00
Instructions for making electronic payments to New York Independent System Operator, Inc. Key Bank, N.A. 66 South Pearl Street Albany, NY 12207 ABA# Account#					Overpayment* \$0.00 Past Due Balance* \$0.00
					Total Charge to Market Participant \$0.00

*The amounts of the Overpayment and Past Due Balances may not reflect payments made after the Requisite date of the previously issued invoice.

Figure 13: Invoice Summary Report - XLS Output

NYISO Market Participant Invoice Dated:					
Market Participant Name:			Invoice Number:		
			FBC Posting Date:		
			Invoice Issued:		
			Payment Due to the NYISO:		
			Total Charge to Market Participant:		
		Apr-2012	Dec-2011	Aug-2011	
		Initial Settlement	4 Month Settlement	Final Bill Close-out	Total
		Version 1	Version 2	Version 3	
<u>Monthly Payments / (Charges)</u>					
Power Supplier		\$0.00	\$0.00	\$0.00	\$0.00
Transmission Customer		\$0.00	\$0.00	\$0.00	\$0.00
Transmission Congestion Contract Holder		\$0.00	\$0.00	\$0.00	\$0.00
Transmission Owner		\$0.00	\$0.00	\$0.00	\$0.00
Demand Response Customer		\$0.00	\$0.00	\$0.00	\$0.00
Virtual Bidding Customer		\$0.00	\$0.00	\$0.00	\$0.00
Settlement Subtotal		\$0.00	\$0.00	\$0.00	\$0.00
Previous Version Settlement Subtotal		\$0.00	\$0.00	\$0.00	\$0.00
Total Current Settlement Subtotal		\$0.00	\$0.00	\$0.00	\$0.00
Adjustments					
Interest Payment to (Charge to) Market Participant					
Current Invoice Payment (Charge to) Market Participant		\$0.00	\$0.00	\$0.00	\$0.00
Prepayments					
Net Payment to (Charge to) Market Participant		\$0.00	\$0.00	\$0.00	\$0.00
Working Capital Cash Transactions					\$0.00
ICAP Transaction to Market Participant					\$0.00
Bad Debt Loss					\$0.00
				Invoice Total	\$0.00
Instructions for making electronic payments to New York Independent System Operator, Inc.					
Key Bank, N.A.				Overpayment*	\$0.00
66 South Pearl Street				Past Due Balance*	\$0.00
Albany, NY 12207					
ABA#					
Account#					
Total Charge to Market Participant					\$0.00

* The amounts of the Overpayment and Past Due Balances may not reflect payments made after the Requisite date of the previously issued invoice.

4.2.4. Invoice Detail Report

Users that click ON the **Invoice Detail Report** will have their requested report displayed in XLS format.

Figure 14: Invoice Detail Report in XLS

	A	B	C
1	Power Supplier Statement Monthly Billing Period (09/01/2009)	Initial Settlement	4 Month Settlement
2			
3	Invoice Date	10/7/2009	2/5/2010
4	Energy (MWh)		
5	300 Forward Energy		
6	303 Balancing Energy		
7			
8	Energy Settlement (\$)		
9	301 Forward Energy		
10	302 Balancing Energy		

4.2.4.1. Adjustment Detail Report

Users that click on the **Adjustment Detail Report** will have their requested report displayed in XLS format.

Figure 15: Adjustment Detail Report in XLS

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1	NYISO Market Participant Adjustment Details - Invoice Dated July 07, 2015															
2	Market Participant Name:												Invoice Number: 1038-20150707			
3			Initial	Allocation	Allocation				Total							Source
4	Adjustment	Billing	Banking	Start	End	Allocation	Total	Org	Allocation	Adjustment	Interest	Total	Adjustment	Reversing	Adjustment	Additional
5	ID	Month	Date	Time	Time	Basis	MWh	MWh	Amount	Amount	Amount	Adjustment	Type	Flag	ID	Detail
6	No data available for this report															
7	Total									\$0.00	\$0.00	\$0.00				

4.2.4.2. Pre-Payment Detail Report

Users that click on the **Pre-Payment Detail Report** will have their requested report displayed in XLS format.

Figure 16: Pre-Payment Detail Report in XLS

	A	B
1	NYISO Market Participant Prepayment Details - Invoice Dated January 08, 2010	
2	Market Participant Name:	Invoice Number:
3		
4	Prepayments	
5	Prepayment Type	Prepayment Amount
6	No data available for this report	
7		
8	Total Prepayments	\$0.00
9		

4.2.4.3. ICAP Detail Report

Users that click on the **ICAP Detail Report** will have their requested report displayed in XLS format. This report is only available for billing periods October 2011 or later.

Figure 17: ICAP Detail Report in XLS - Flexible Billing Period

NYISO Market Participant ICAP Details - Invoice Dated October 12, 2011						
Market Participant Name:				Invoice Number:		
ICAP Detail - Invoice with Flexible Billing Period						
Flexible Billing Period of 10/01/11 - 10/07/11						
ICAP Auction Totals (\$)	<i>Divided by</i>	Number of Days in October	<i>Multiplied by</i>	Number of Days in flexible Billing period	<i>Equals</i>	ICAP Transactions/Payment to Market Participant (\$)
No ICAP data available for this Invoice						

Figure 18: ICAP Detail Report in XLS - Initial Month Billing Period

NYISO Market Participant ICAP Details - Invoice Dated November 07, 2011				
Market Participant Name:			Invoice Number:	
ICAP Detail - Invoice with Initial Month Billing Period				
Flexible Invoice Date	Billing Period Start Date	Billing Period End Date	ICAP Transactions/Payment to Market Participant (\$) from Previous Invoices	
10/12/2011	10/1/2011	10/7/2011		
10/19/2011	10/8/2011	10/14/2011		
10/26/2011	10/15/2011	10/21/2011		
11/2/2011	10/22/2011	10/28/2011		
Flexible Total				
ICAP Auction Totals with Load Shift and True-Up (\$)	<i>minus</i>	Flexible Total	<i>Equals</i>	ICAP Transactions/Payment to Market Participant (\$)
No ICAP data available for this Invoice				

4.2.4.4. Bad Debt Loss Detail Report

Users that click on the **Bad Debt Loss Detail Report** will have their requested report displayed in XLS format. This report is only available for billing periods March 2012 or later.

Figure 19: Bad Debt Loss Detail Report in XLS

NYISO Market Participant Bad Debt Loss Details - Invoice Dated October 07, 2011

Market Participant Name:	Invoice Number:
--------------------------	-----------------

Bad Debt Loss

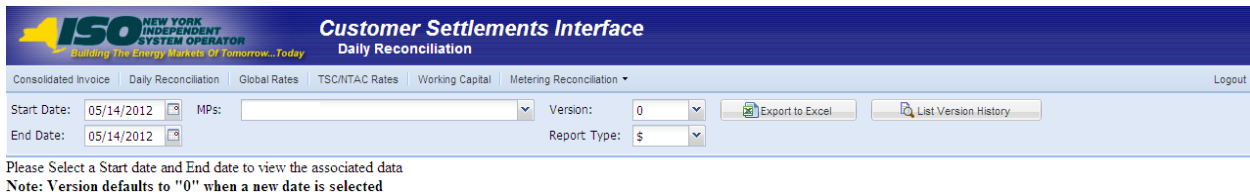
BDL Invoice Default Date	BDL Billing Period Start Date	BDL Billing Period End Date	BDL Amount	BDL Description
No data available for this report				

4.3. Daily Reconciliation

The **Daily Reconciliation** option will provide the user with their daily reconciliation report.

4.3.1. Daily Reconciliation Query

Figure 20: Daily Reconciliation Query Screen



The query for daily reconciliation includes following.

Start Date: start date of the request

End Date: end date of the request

start date and end date must be within the same calendar month

to request a single day, enter the same start date and end date

When requesting multiple days, the data will be summed for the date range

MPs: listing of valid MP organizations accessible by the user

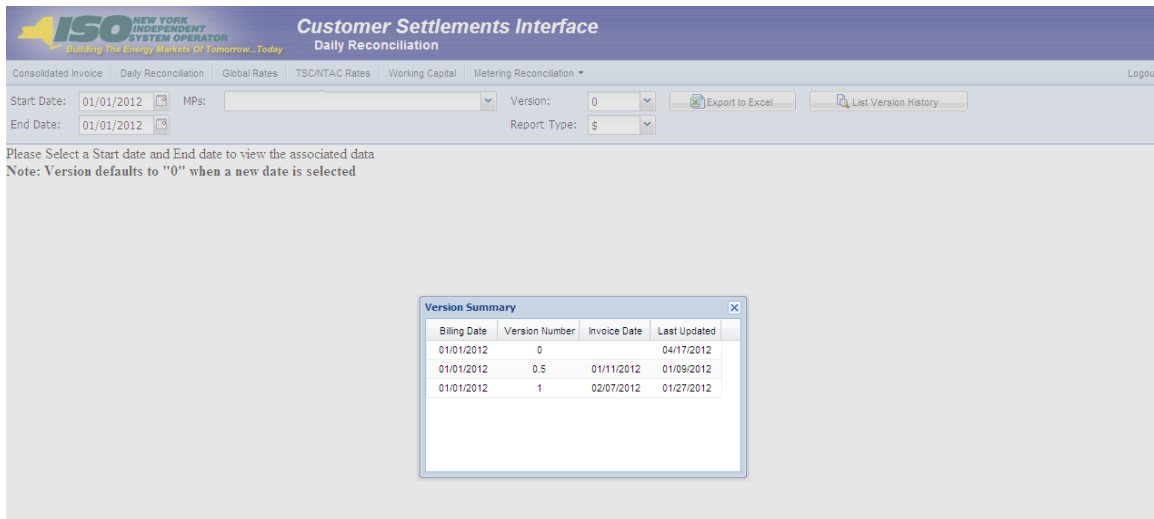
Version: invoice version of the data that is available for the date range selected

List Version History- provides user with all versions available within the start and end date range

(Note: this is no longer a required step)

Version 0 in the daily reconciliation will include the latest information available for any billing day. However, users should look at the update dates that show up in the billing versions display. Once rebills have started for a period, that period could contain a mix of version runs.

Figure 21: List Versions option



Report Type: options include \$ (for cash flow reconciliation) or MWh (for transmission service reconciliation)

The user enters the filter criteria and clicks on the **Export to Excel** button. The requested data will be displayed in an XLS file.

Figure 22: Daily Reconciliation Report Example

SETTLEMENT RECONCILIATION FOR: 01/01/2012 to 01/01/2012 version 0 Report Run Date: Mon May 14 2012 16:04:27 GMT				
Billing Code		Income	Billing Code	
70101	DAM LSE Internal LBMP Energy	0	30101	DAM Internal PS LBMP Energy Purcha
70201	DAM LSE Internal LBMP Losses	0	30102	DAM Internal PS LBMP Losses Purcha
70301	DAM LSE Internal LBMP Congestion	0	30103	DAM Internal PS LBMP Congestion Pu
75901	DAM External TC LBMP Energy Sales Revenue	0	75903	DAM External PS LBMP Energy Purch
76001	DAM External TC LBMP Losses Sales Revenue	0	76003	DAM External PS LBMP Losses Purch
76101	DAM External TC LBMP Congestion Sales Revenue	0	76103	DAM External PS LBMP Congestion P
75902	DAM Replacement LBMP Energy Sales Revenue Due to Curtailed Imports	0	30201	DAM NYISO Bid Production Cost Guar
76002	DAM Replacement LBMP Losses Sales Revenue Due to Curtailed Imports	0	76801	DAM NYISO Bid Production Cost Guar
76102	DAM Replacement LBMP Congestion Sales Revenue Due to Curtailed Imports	0	77301	DAM Virtual Supply LBMP Energy Exp
77101	DAM Virtual Load LBMP Energy Sales	0	77302	DAM Virtual Supply LBMP Losses Exp
77102	DAM Virtual Load LBMP Losses Sales	0	77303	DAM Virtual Supply LBMP Congestion

4.4. Global Rates

The Global Rates option will provide authorized users with global rate data.

4.4.1. Global Rates Query

The query for Global Rates include following.

Global Rate Types: select the name of the Global Rate from a drop-down listing

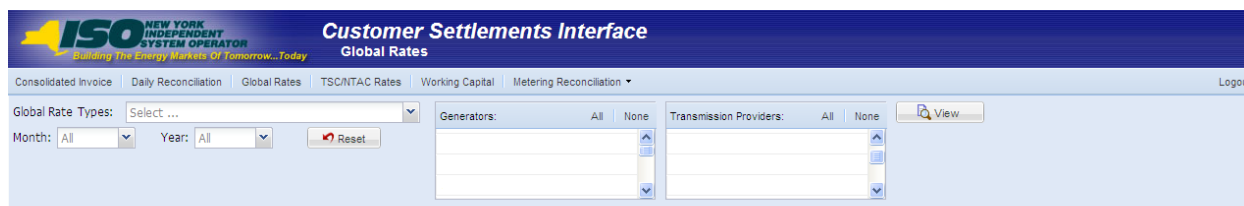
Month: Month of Global Rate

Year: Year of Global Rate

Generators: select one or more Generators from a drop down listing, where applicable

Transmission Providers: select one or more Transmission Providers from a drop down listing, where applicable

Figure 23: Global Rates Query Screen



The screenshot shows the 'Customer Settlements Interface' with the 'Global Rates' tab selected. The interface contains the following elements:

- Navigation Bar:** Consolidated Invoice | Daily Reconciliation | **Global Rates** | TSC/NTAC Rates | Working Capital | Metering Reconciliation | Logout
- Global Rate Types:** A dropdown menu with 'Select ...' as the current selection.
- Month:** A dropdown menu with 'All' selected.
- Year:** A dropdown menu with 'All' selected.
- Reset:** A button with a red arrow icon and the text 'Reset ...'.
- Generators:** A list box with 'All' and 'None' radio buttons above it. The list box is currently empty.
- Transmission Providers:** A list box with 'All' and 'None' radio buttons above it. The list box is currently empty.
- View:** A button with a magnifying glass icon and the text 'View ...'.

Please Select a Global Rate Type to view the associated data

The user enters the filter criteria and clicks on the **View** button. The screen will be refreshed to include the requested data.

4.5. TSC/NTAC Rates

The TSC/NTAC Rates option will provide authorized users with the TSC/NTAC data.

4.5.1. TSC/NTAC Query

The query for TSC/NTAC include following.

Organization Name: select the user authorized organization name

Calendar Month: Calendar Month of TSC/NTAC rates

Figure 24: TSC/NTAC Query Screen



The screenshot shows the 'Customer Settlements Interface' for 'TSC/NTAC Rates'. The navigation menu includes 'Consolidated Invoice', 'Daily Reconciliation', 'Global Rates', 'TSC/NTAC Rates', 'Working Capital', and 'Metering Reconciliation'. The 'TSC/NTAC Rates' option is currently selected. Below the navigation bar, there are two input fields: 'Organization Name' with a dropdown menu showing 'Select ...' and 'Calendar Month' with a text input showing '05/2012'. A 'View' button is located to the right of the 'Calendar Month' field. Below the input fields, there is a message: 'Please Select the Organization name and Calendar Month to view associated data'.

The user enters the filter criteria and clicks on the **View** button. The screen will be refreshed to include the requested data. Where applicable, MPs with appropriate permissions will be able to edit the displayed rates.

4.6. Working Capital

The Working Capital option will provide authorized users with their Working Capital data.

4.6.1. Working Capital Query

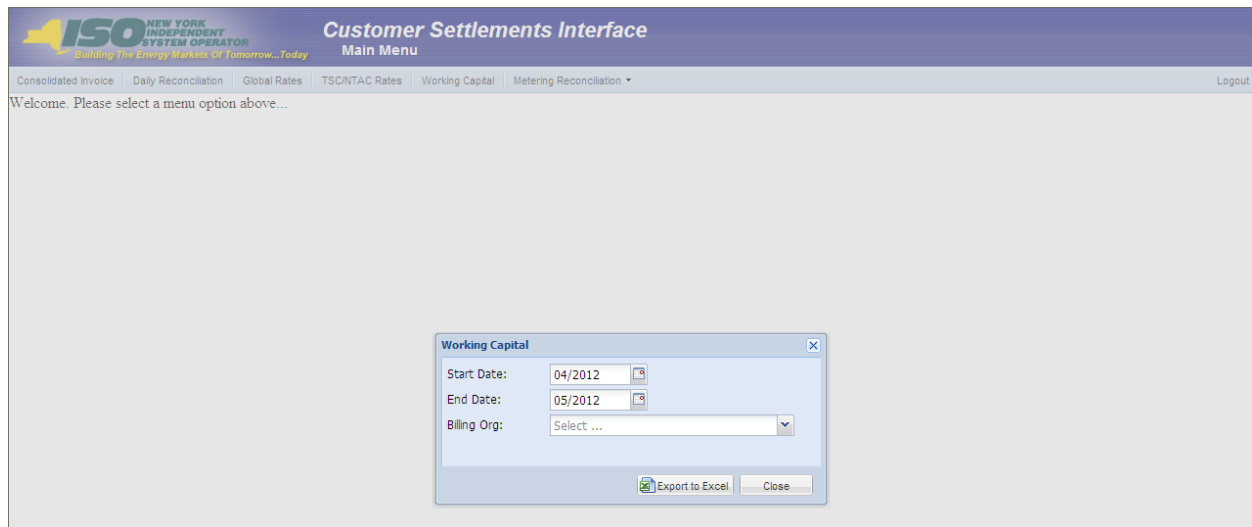
The query for Working Capital includes the following.

Start Date: select the start date of the query

End Date: select the end date of the query

Billing Org: select the user authorized organization

Figure 25: Working Capital Query Screen



The user enters the filter criteria and clicks on the **Export to Excel** button. The requested data will be displayed in an XLS file. To cancel out of the menu option, the user will click on the **Close** Button.

Figure 26: Working Capital Detail Report

Working Capital Detail for						
Type ID	Transaction Date	Type Description	Amount	Transaction Description	Opening Balance	Closing Balance

4.7. Metering Reconciliation

Tie line, generator, subzone, and load bus data may be accessed, reviewed, and updated via the Metering Reconciliation option.

4.7.1. Metering Reconciliation Reports

After the user clicks on the **Metering Reconciliation** button, a drop down list with the following report options is displayed:

Calculated Subzone Load

Subzone Load Detail

Gen/Tie Detail

Wholesale Load Bus Detail

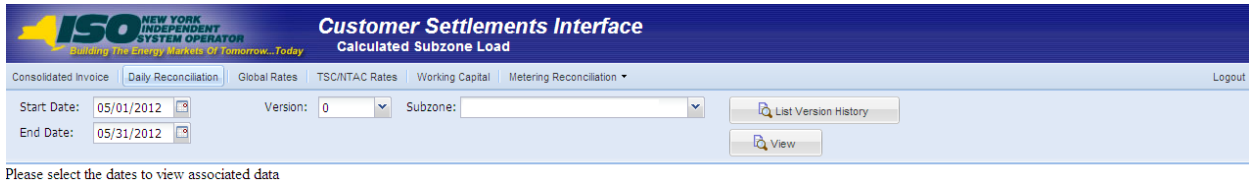
Figure 27: Metering Reconciliation Report Option Screen



4.7.1.1. Calculate Subzone Load Report

After the user clicks on the **Calculate Subzone Load** button a query screen will be displayed to the user.

Figure 28: Calculated Subzone Load Query



The *Calculated Subzone Load* query allows a Meter Authority to view their NYISO calculated subzone load for a specific month. Contributions from Aggregations will be included in the calculated subzone load. The query page includes a drop-down menu that is populated with all subzones owned by the Meter Authority. The user has the ability to choose a single subzone, some or all of their subzones by selecting the appropriate choice from the drop-down menu.

The Calculated Subzone Load query page enables the user to select the following query options:

Start Date: Select the start date of the query

End Date: Select the end date of the query

Version: Select the version of the query

List Version History - provides user with all versions available within the start and end date range (Note: this step is not required to retrieve the report.)

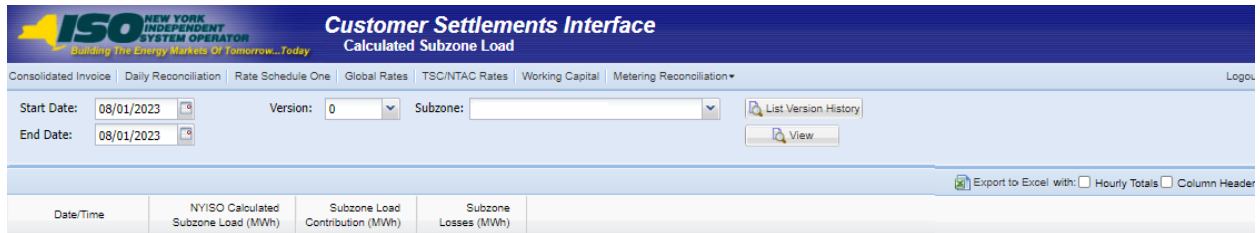
Subzone: Select the subzone of the query

The user enters the filter criteria and clicks on the **View** button. The screen will be refreshed to include the requested data.

After the query parameters have been selected, the *Calculated Subzone Load* results page is displayed. For each day in the specified data range, the NYISO-calculated Subzone Load data is displayed, sorted by hour. If there are multiple days in the date range, each day will be displayed separately.

The data detail for the Tie/Gen Total/MWh value is accessible by selecting the **Date/Time** link for that hour.

Figure 29: Calculated Subzone Load Results page



Customer Settlements Interface
Calculated Subzone Load

Consolidated Invoice | Daily Reconciliation | Rate Schedule One | Global Rates | TSC/NTAC Rates | Working Capital | Metering Reconciliation | [Logout](#)

Start Date: 08/01/2023 Version: 0 Subzone: [List Version History](#)

End Date: 08/01/2023 [View](#)

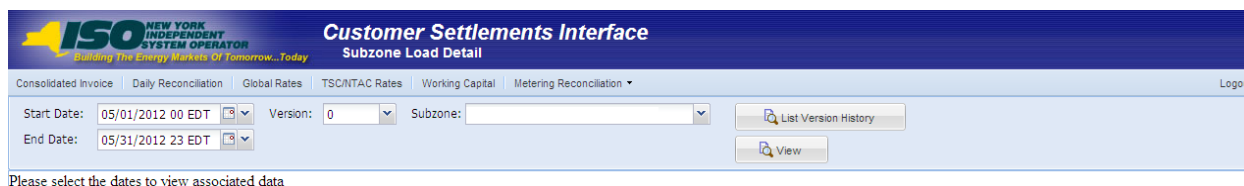
[Export to Excel](#) with: Hourly Totals Column Header

Date/Time	NYISO Calculated Subzone Load (MWh)	Subzone Load Contribution (MWh)	Subzone Losses (MWh)

4.7.1.2. Subzone Load Detail Report

After the user clicks on the **Subzone Load Detail Report** button a query screen will be displayed to the user.

Figure 30: Subzone Load Detail Query



The *Subzone Load Detail* query page allows a Meter Authority to view the generator and tie-line data used in the NYISO subzone load calculation.

The report includes a drop-down menu that is populated with all subzones owned by the Meter Authority. The user has the ability to choose a single, multiple, or all of their subzones by selecting the appropriate choice from the drop down menu.

The Subzone Load Detail query page enables the user to select the following reporting options:

Start Date: Select the start date of the query

End Date: Select the end date of the query

Version: Select the version of the query

List Version History - provides user with all versions available within the start and end date range (Note: this step is not required to retrieve the report.)

Subzone: Select the subzone of the query

The user enters the filter criteria and clicks on the **View** button. The screen will be refreshed to include the requested data. Each hour included in the report will be separated by page breaks with their own heading. For each hour, every tie and generator for that subzone will be displayed.

For clear distinction between dual channel (LESR Generator Type or those Generators which have the ESR attribute) and single channel generators:

Single channel generator and tie-line data is populated in the Subzone Load Contribution MWh, MA Reported MWh, MA Reported Injection MWh, and/or Telemetry MWh columns.

Dual channel generator data is populated in the Subzone Contribution MWh, MA Reported Injection MWh, Telemetry Avg Actual Injection MWh, MA Reported Withdrawal MWh, and/or the Telemetry Avg

Actual Withdrawal MWh columns. The net value of the MA Reported Injection MWh and the MA Reported Withdrawal MWh is populated in the MA Reported MWh column.

Aggregation data is populated in the Subzone Contribution MWh, MA Reported Injection MWh, Telemetry Avg Actual Injection MWh, MA Reported Withdrawal MWh, Telemetry Avg Actual Withdrawal MWh, MA Reported Demand Reduction MWh, and/or the Telemetry Demand Reduction MWh columns. The net value of the MA Reported Injection MWh and the MA Reported Withdrawal MWh is populated in the MA Reported MWh column.

In addition, the Subzone Contribution (MWh) is displayed with the flow multiplier used in the NYISO calculated subzone load calculation.

The Gen, Tie and Gen/Tie totals for the hour is included at the bottom of each hour section.

From the *Subzone Load Detail* page, the user is able to update their reported values for the ties or generators that they own. Clicking on the **Submit** button at the bottom of the display will submit the updated values.

The Subzone Contribution (MWh) column will only be populated for PTIDs that are included in the subzone load calculation. For example, the MWhs scheduled by Demand Response Providers (DRPs) are not included in the subzone load calculation; therefore, the Subzone Contribution (MWh) column will be blank for these units. In addition, the MA Reported MWh values for the single metered point for grouped units will be zero in the Subzone Contribution (MWh) column but the MA Reported MWh values for each individual unit in the grouped unit will be populated.

Figure 31: Subzone Load Detail results page



Anomaly	Pid	Pid Name	Type	Meter Authority	Subzone Load Contribution (M)	MA Reported MWh	Telemetry Avg Actual MWh	MA Reported Injection MWh	Telemetry Avg Actual Injection MWh	MA Reported Withdrawal MWh	Telemetry Avg Actual Withdrawal MWh	MA Reported Demand Reduction MWh	Telemetry Demand Reduction MWh	MA Last Updated	MA Last Updated User	Generator Seasonal UOL	Last Updated	Last Updated User
---------	-----	----------	------	-----------------	-------------------------------	-----------------	--------------------------	---------------------------	------------------------------------	----------------------------	-------------------------------------	----------------------------------	--------------------------------	-----------------	----------------------	------------------------	--------------	-------------------

The user can view details of a particular generator, tie, or subzone by clicking on the PTID name. An example of the detail view for a tie line is shown in Figure 32, below.

Figure 32: Tie Details page

Page Ref: MA-4.3

Tie Details

PTID: 00051
 Name: Name 51
 Meter Qualified?:
 Active?:
 Log:

From SubZone: Name 52
 To SubZone: Name 53
 From Zone: Zone 5 External?
 To Zone: Zone 5 External?

Meter Authority History			
Name	Effective Date	Flow Multiplier	
		Meter Authority	PTS
Metering Authority - Name 530	02/20/2007	-1	1

Flow Multiplier for Tie Lines

The following information details how the Flow Multiplier (sign convention) value is used in the subzone load calculation for tie lines.

Meter Authority (MA) value: used by the application for determining the energy flow of the MA supplied tie-line data. The sign convention is necessary in determining the tie line component of the subzone load calculation.

To Subzone: When the subzone for which the load is being calculated is specified as the ‘To’ subzone, then the **‘opposite value’** of what is stored in the Flow Multiplier Meter Authority column, is multiplied by the MA MWh value.

From Subzone: When the subzone for which the load is being calculated is specified as the ‘From’ subzone, then the **‘value’** stored in the Flow Multiplier Meter Authority column, is multiplied by the MA MWh value.

PTS value: In the absence of MA supplied data, the PTS data is used in the subzone load calculation. In these cases, the sign convention of the PTS data must first be converted to the same sign as the MA data. Then the same MA determination is performed as is defined in the previous section.

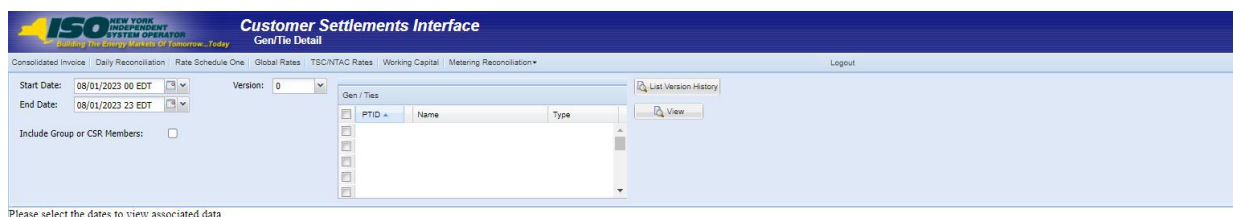
1st Step: The PTS data is converted to the MA sign convention by multiplying the PTS MWh value by the Flow Multiplier PTS column value.

2nd Step: Using the new MWh value resulting from the previous step, apply the same steps as listed in the MA section.

4.7.1.3. Gen/Tie Detail Report

After the user clicks on the **Gen/Tie Detail Report** button a query screen will be displayed to the user.

Figure 33: Gen/Tie Detail Query



The *Gen/Tie Detail* report allows a Meter Authority to focus on grouped or individual generators, tie-lines, or Aggregations. The *Gen/Tie Load Detail* query page includes a drop-down menu of all generators, ties, and Aggregations for which the user has update authorization.

The Gen/Tie Detail query page enables the user to select the following reporting options:

Start Date: Select the start date of the query

End Date: Select the end date of the query

Version: Select the version of the query

List Version History - provides user with all versions available within the start and end date range

(Note: this step is not required to retrieve the report.)

- **Gen/Tie:** Select the authorized generators, tie lines Aggregations; a selection of more than one Gen/Tie is permitted only when the Start Date and End Date are the same day. Advanced filtering will automatically scroll the listing to the first Gen/Tie entry, which corresponds to the letter or number typed by the user in the Gen/Tie drop down listing.
- To select all Gen/Ties, click the **All** button for all subzones in the listing.
- To select no Gen/Ties, click the **None** button to clear all subzones in the listing
- To select one or more Gen/Ties:
 - either click each desired Gen/Tie individually, or
 - press the **CTRL** key then click each desired Gen/Tie in the list, or
 - press the **SHIFT** key then click the first and last Gen/Tie to be included in the report.

Gen/Tie – Type

- To display all Gens, Ties, and Aggregations, click the **All** radio button.
- To display Generators only, click the **Generators** radio button.
- To display Ties only, click the **Ties** radio button.
- To display Aggregations click the **Aggregations** radio button.

Gen/Tie – Sort by

- To sort the selection list by PTID, click the **PTID** radio button.
- To sort the selection list by PTID name, click the **Name** radio button.

The user enters the filter criteria and clicks on the **View** button. The report output only displays the generators, ties, or Aggregations that were selected, and provides the user with the ability to update the Meter Authority reported MWh. Generators or metering authorities creating queries for tie line, generator, and sub-zone hourly MW data for grouped units should note that the data returned from such query to a Web page will appear ordered first by the single metered PTID for the grouped unit and, secondly, by each individual PTID in the grouped unit.

For clear distinction between dual channel (LESR Generator Type or those Generators which have the ESR attribute) single channel generators and Aggregations:

Single channel generator and tie-line data is populated in the MA Reported MWh, MA Reported Injection MWh, and/or Telemetry MWh columns.

Dual channel generator data is populated in the MA Reported Injection MWh, Telemetry Avg Actual Injection MWh, MA Reported Withdrawal MWh, and/or the Telemetry Avg Actual Withdrawal MWh columns. The net value of the MA Reported Injection MWh and the MA Reported Withdrawal MWh is populated in the MA Reported MWh column. When adding or modifying dual channel meter data, the form requires the user to enter a value for both the Injection MWh and the Withdrawal MWh. When the user does not enter a value in both fields, an error message will be displayed.

Aggregation data is populated in the Subzone Contribution MWh, MA Reported Injection MWh, Telemetry Avg Actual Injection MWh, MA Reported Withdrawal MWh, Telemetry Avg Actual Withdrawal MWh, MA Reported Demand Reduction MWh, and/or the Telemetry Demand Reduction MWh columns. The net value of the MA Reported Injection MWh and the MA Reported Withdrawal MWh is populated in the MA Reported MWh column.

Figure 34: Dual channel Injection/Withdrawal MWh-related error message

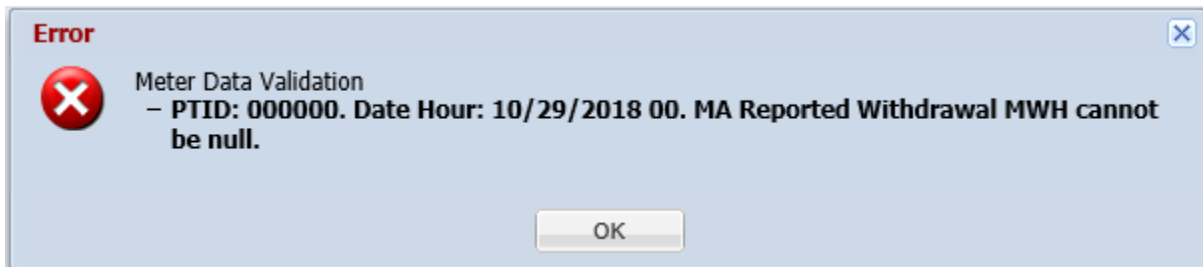
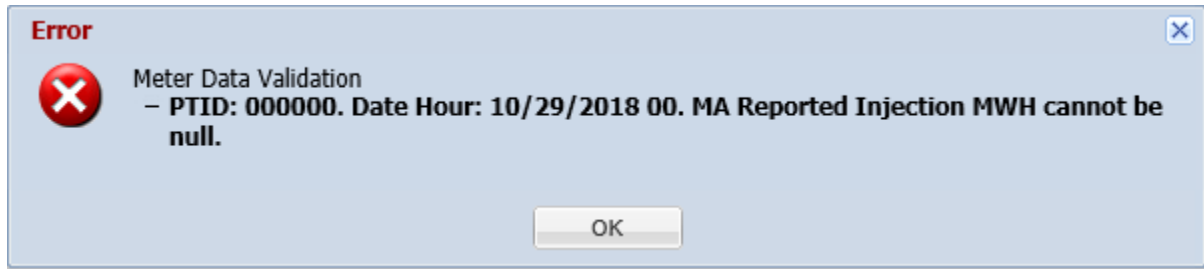
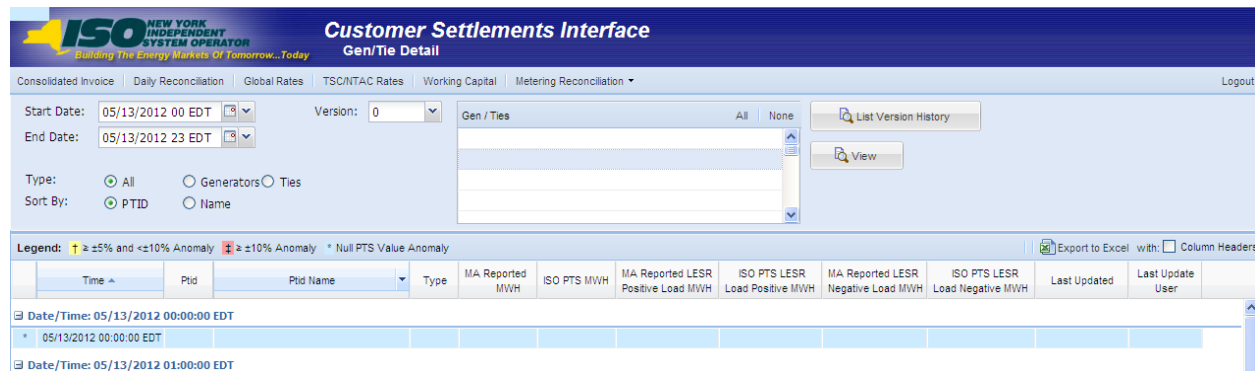
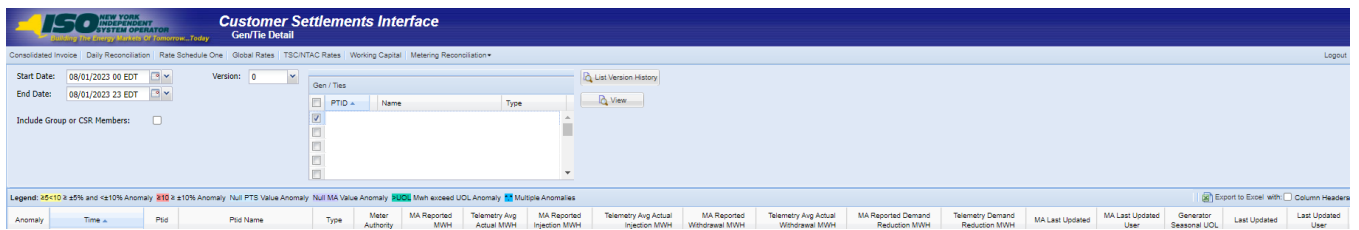


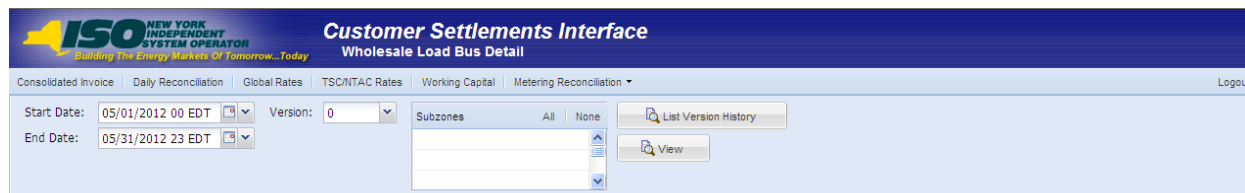
Figure 35: Gens/Ties Hourly Load Detail results page



4.7.1.4 Wholesale Load Bus Detail Query Page

After the user clicks on the **Wholesale Load Bus Detail Report** button a query screen will be displayed to the user.

Figure 36: Wholesale Load Bus Detail Query



Please select the dates to view associated data

The *Wholesale Load Bus Detail* query page allows the user to choose a date or date/time frame, and a specific subzone for which they wish to review/enter their wholesale load bus data.

The *Wholesale Load Bus Detail* query page enables the user to select the following reporting options:

Start Date: Select the start date of the query

End Date: Select the end date of the query

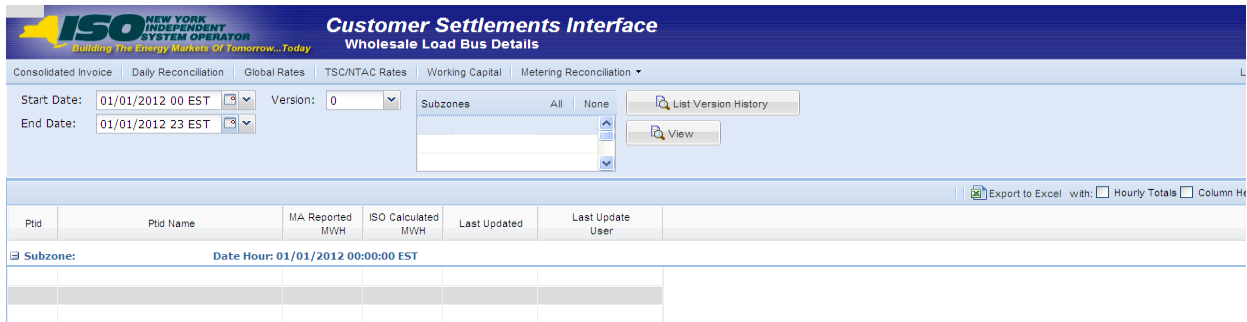
Version: Select the version of the query

List Version History - provides user with all versions available within the start and end date range (Note: this step is not required to retrieve the report.)

- **Subzones** – A selection of more than one Subzone is permitted only when the Start Date and End Date are the same day.
 - To select all Subzones, click the **All** button for all subzones in the listing.
 - To select no Subzones, click the **None** button to clear all subzones in the listing.
 - To select one or more Subzones, either click each desired subzone, or press the **CTRL** key then click each desired subzone in the list, or press the **SHIFT** key then select the first and last Subzone to be included in the report.

The user enters the filter criteria and clicks on the **View** Button. The report output only displays the PTIDs for which the Meter Authority is responsible. The user can report and submit wholesale load bus data from this display.

Figure 37: Wholesale Load Bus Detail results page



Customer Settlements Interface
Wholesale Load Bus Details

Consolidated Invoice | Daily Reconciliation | Global Rates | TSC/NTAC Rates | Working Capital | Metering Reconciliation

Start Date: 01/01/2012 00 EST | End Date: 01/01/2012 23 EST | Version: 0

Subzones: All | None | List Version History | View

Export to Excel with: Hourly Totals Column Headers

Ptid	Ptid Name	MA Reported MWH	ISO Calculated MWH	Last Updated	Last Update User
Subzone: Date Hour: 01/01/2012 00:00:00 EST					

5. Using Marketplace User, Administrator and Organization Links

The Market Participant User, Administrator and Organization Web pages enable the user to view and update access to the SDX functions based upon user permissions. For additional information please refer to section 6 of the *Market Participant User's Guide (MPUG)*, available from the NYISO Web site at the following URL: <https://www.nyiso.com/manuals-tech-bulletins-user-guides>