Settlement Data Exchange User's Guide

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NYISO SETTLEMENT DATA EXCHANGE USER'S GUIDE

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Revision History

Revision	Date	Changes
1.0	8/3/2007	**Replaces the Web-Based Reconciliation (WBR) User's Guide (Ver 3.0) with updates delivered with the WBR Replacement Project**

1. INTRODUCTION

The MIS web-enabled applications described in this Settlement Data Exchange (SDX) User's Guide support upload and download query functions related to hourly tie line, generation, subzone, and load bus data. This SDX User's Guide assumes prior knowledge in using the NYISO MIS and the 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). For additional information relating to the upload/download process, please refer to Section 8 of the MPUG.

1.1 User Account Overview

The NYISO MIS provides Market Participants (MPs) with significant flexibility in establishing user accounts to meet the specific roles and responsibilities that its staff may have within its organization. The types of actions allowed have been developed over time with input from MPs. The Settlement Data Exchange (SDX) is built on top of the MIS and offers 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 they want to manage the account.

Each of the Metering Authorities (MA) has a Metering 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 Administrator[1] responsible for establishing accounts should understand the following points.

1. The individual accounts for SDX are configured and maintained by their Meter Authority Administrator(s) (individuals within their own company) via SDX screens on the NYISO Markeplace (refer to Market Participant Administrator Web Pages).

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

3. Users must be authorized to submit various types of data such as meter data for SDX. 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. In SDX, a user must be authorized to submit meter data and must be authorized for that particular gen, tie, or load.

4. The permissions established for the SDX users support both Bidpost (upload/download) and Marketplace (web pages for SDX).

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[1] **Metering Authority Administrator** - Individual or Individuals authorized by their Metering Authority to submit and/or access metering data through the SDX Database.

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1.2 User Account Configuration and Management

The Settlement Data Exchange (SDX) application supports the following objectives:

- Provide automated users with the ability to submit tie, gen, and/or load data for a particular MA
- Provide web users with the ability to view tie, gen, subzone data
- Provide web users with the ability to view their load data
- Provide individual user accountability and viewing for each user account

The SDX proposed solution to meeting the defined objectives:

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 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 is needed. As these accounts have the "submit" flag turned on, they should not 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.

2. USING SDX UPLOAD/DOWNLOAD TEMPLATES

2.1 Web Access to the Upload/Download Templates

A new Universal Resource Locator (URL) is available for all Settlement Data Exchange (SDX) upload and download templates. All of the SDX upload and download templates supported by the SDX are included in this user guide. All other NYISO templates are documented in the Market Participants User's Guide (MPUG).

2.1.1 Market Data Exchange Web Page

All users will continue to access the NYISO's Bidding and Scheduling web address:

http://www.nyiso.com/public/market_data/market_access.jsp

From this page, users will find access to the Settlement Data Exchange documentation and application links (refer to Figure 1 - Market Data Exchange).
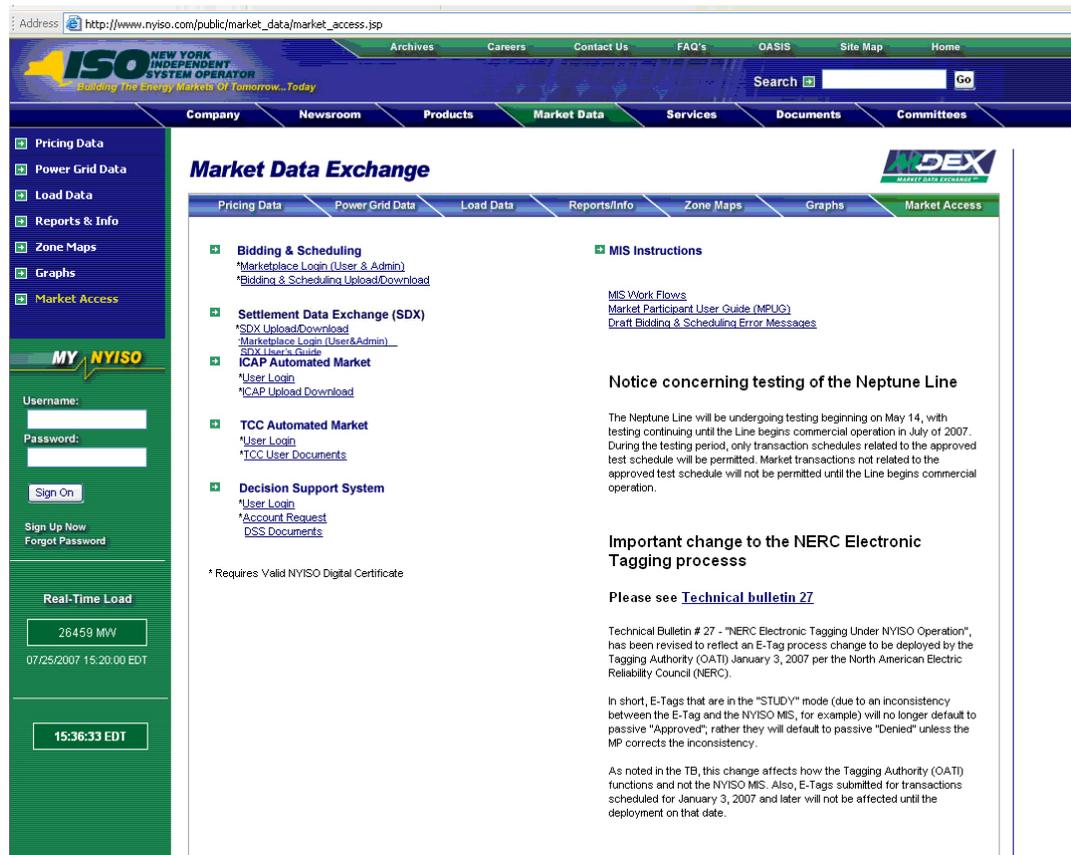
Figure 1 - Market Data Exchange

2.1.2 SDX Upload and Download Web Page

The SDX upload and download page is available directly by using the SDX Upload and Download link:

https://sdx.nyiso.com/upload.html
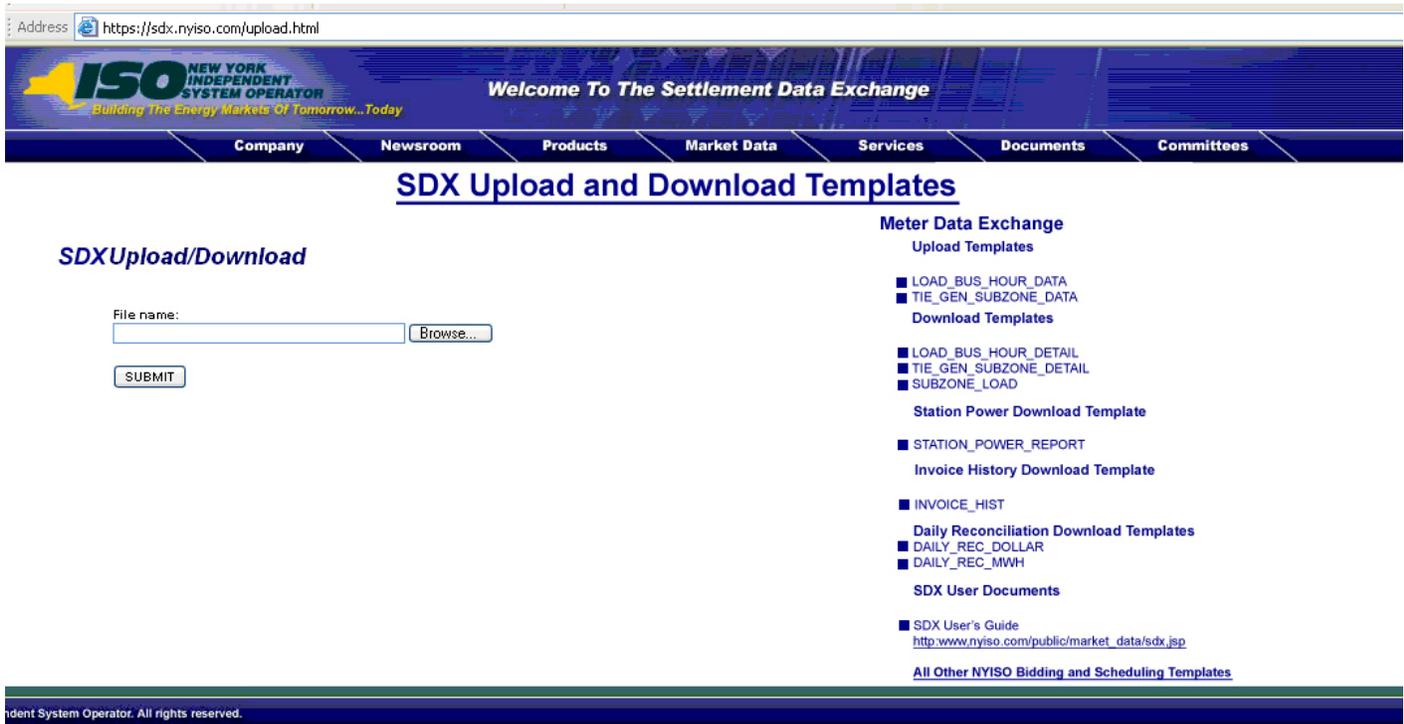
Figure 2 - SDX Upload and Download Web Page

2.1.3 **NYISO User Guide Web Page**

The NYISO user guide Web page has a link to the SDX User Guide. To view and select this link:

- go to the NYISO home page: http://www.nyiso.com/public/index.jsp
- select Documents, User Guides
- view Guides web page as shown below
- view Settlement Data Exchange User's Guide (refer to Figure 3 - Guides Web Page)

Figure 3 - Guides Web Page

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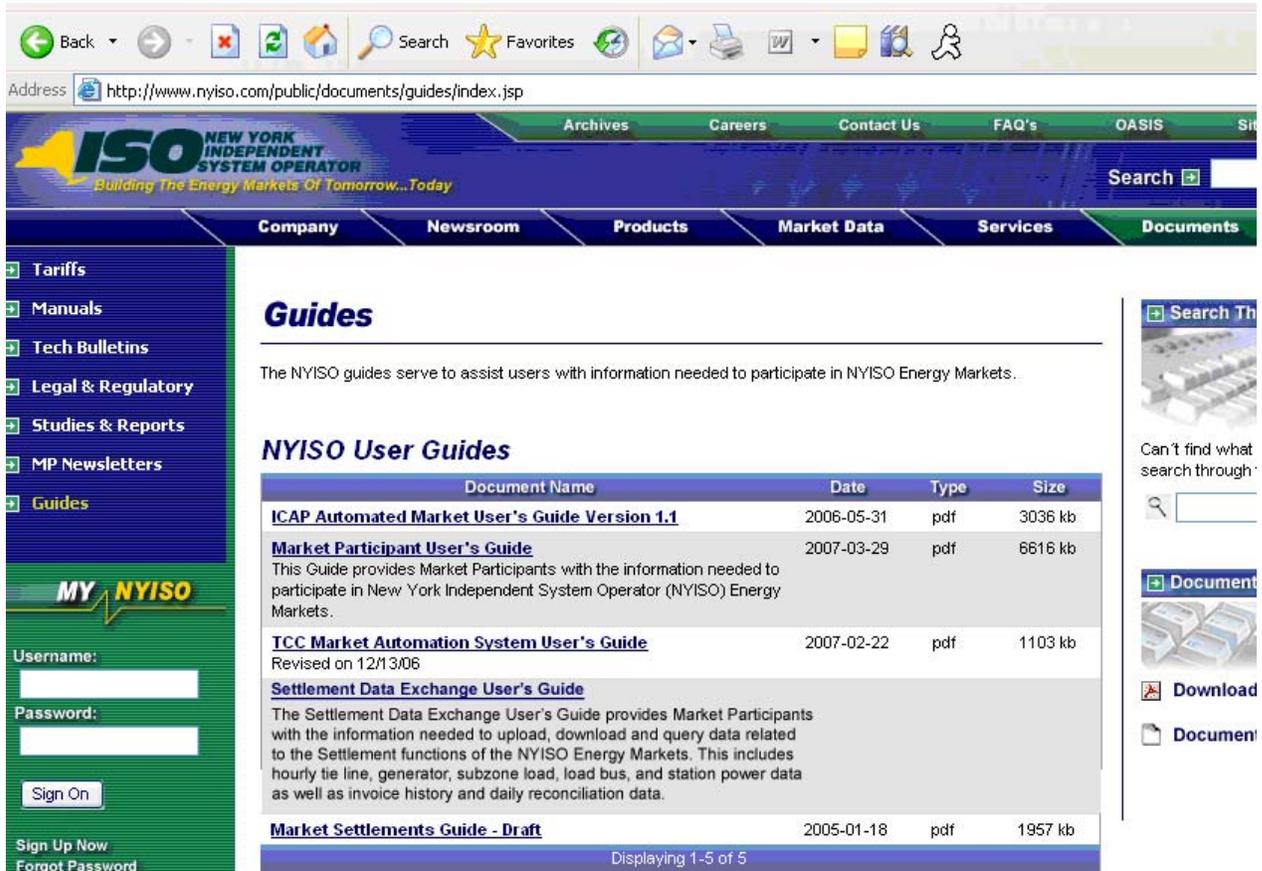
2.2 Upload template for tie line, generator, and subzone data

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, generator, or subzone PTID, or up to all applicable PTIDs assigned to that meter authority.

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.

<u>Request File: Header Detail</u>

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

<u>Request File: Data detail for each record submitted:</u>

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/SUBZONE PTID	NUMBER	Unique integer identifier defined by NYISO
Hourly MW Value	NUMBER (20,3)	Hourly MW value reported by the meter authority for each PTID. Data entered may not exceed 3 decimal places.

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[2] For additional information concerning the treatment of 23 and 25- hour days, please refer to NYISO Technical Bulletins # 64 (25-hour day) and # 88 (23-hour day).

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

<u>**Response File: Header Detail**</u>

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
DATA_ROWS	The total number of records processed in the request	Y
DATA_SUM	Total sum of MWs processed in the request	Y

<u>**Response File: Data Detail**</u>

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
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.		
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
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.		
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
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.		

Example1:

Request File (TIE_GEN_SUBZONE_DATA):

Request File: For example, hourly MW values submitted for HB 00 through HB 01 of
December 1, 2005 for three PTIDs would include the following:

BID_TYPE=TIE_GEN_SUBZONE_DATA&
USERID=USER1&
PASSWORD=PASSWORD1&
DATA_ROWS=6&
DATA_SUM=600&
UPLOAD_RESPONSE=Y&
12/1/2005 0:00,23000,100
12/1/2005 1:00,23000,100
12/1/2005 0:00,25000,100
12/1/2005 1:00,25000,100
12/1/2005 0:00,55000,100
12/1/2005 1:00,55000,100

Response File (TIE_GEN_SUBZONE_DATA):

TIME_STAMP=07/1/2006 10:34
BID_TYPE=TIE_GEN_SUBZONE_DATA
DATA_ROWS=6
DATA_SUM=600
GEN_SUM=200
23000,200
TIE_SUM=200
25000,200
SZ_SUM=200
55000,200

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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, generator, and subzone hourly MW data for a specified period within a month.

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.

Generators or metering authorities downloading tie line, generator, and subzone hourly MW data for grouped units should note that the data returned in an output file will appear ordered first, by PTID and, secondly, by the PTIDs associated with grouped units.

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 will not include the METER_VERIFICATION field and may contain optional parameters

2. Subzone summary level data, grouped by generator, tie, and subzone:

   - request file will include the METER_VERIFICATION=SUMMARY, optional parameters are not supported

3. Subzone detail level data, grouped by generator, tie and subzone, and sub-grouped by PTID

   - request file will include the METER_VERIFICATION=DETAIL, optional parameters are not supported

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 (subzone PTID only required when meter verification is not included).

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: *One to ten supported, comma separated*	N
SUBZONE_PTID	Subzone PTID exactly as shown in MIS: *One subzone PTID per request when METER_VERIFICATION is not included in request*	N if METER_VERIFICATION is included in the request; otherwise Y
START_DATE	MM/DD/YYYY HH24:MM *MM/YYYY must match the BILLING_MONTH field*	N
END_DATE	MM/DD/YYYY HH24:MM *MM/YYYY must match the BILLING_MONTH field*	N
VERSION	Invoice version number: *VERSION=0 will return the latest data received*	N
UPDATE_TIME_START	MM/DD/YYYY HH24:MM	N
UPDATE_TIME_END	MM/DD/YYYY HH24:MM	N
METER_VERIFICATION	SUMMARY, DETAIL *SUMMARY: Summary information by Subzone PTID* *DETAIL: Summary information by Generator, Tie-line and Subzone PTIDs* *All other optional parameters ignored*	N

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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
QUERY_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
BILLING_MONTH	The month being returned (MM/YYYY)	N: included for METER_VERIFICATION requests
SUBZONE_NUM	The number of subzones returned	N: included for METER_VERIFICATION requests

Response File – Data Detail:

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

<u>Each data row includes</u>: date and hour, billing date, version, Metering Authority, PTID, Name of PTID, Metering Authority Hourly MWh Value, NYISO Hourly MWh Value, Metering Authority Hourly Meter Update Date and Hour, Update User, Billed Flag

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(2) Requests, which include the METER_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
GEN_SUM	MA MWh Value, NYISO MWh Value *The total MWh value of all generator data for the specified time period:*	Summary and Detail: included when generator data is included in the subzone
GEN_PTIDS Number of Generator PTIDs which follow Each row that follows includes the generator PTID, total MA MWh value and the total NYISO MWh value in CSV (comma-separated value) format. GROUP_GEN <no associated value> *The GROUP_GEN parameter indicates that the next data row is the parent PTID of a group unit* INDV_UNITS Number of child PTIDs which follow *The INDV_UNITS parameter indicates that the data rows which follow are the child PTIDs of a group unit*	Detail: included when GEN_SUM is returned
TIE_SUM	MA MWh Value, NYISO MWh Value *The total MWh value of all tie data for the specified time period*	Summary and Detail: included when tie-line data is included in the request file
TIE_PTIDS Number of tie PTIDs which follow Each row that follows includes the tie PTID, total MA MWh value and the total NYISO MWh value in CSV format.	Detail: included when TIE_SUM is returned
SZ_SUM	MA MWh Value, NYISO MWh Value *The total MWh value of all subzone data for the specified time period*	Summary and Detail: included when subzone data is included in the request file
Each row that follows includes the subzone PTID, total MA MWh value and the total NYISO MWh value in CSV format.		Detail: included when SZ_SUM is returned

Example 1:

- MA requests monthly data for a single PTID
- METER_VERIFICATION is not included in request file

Request File (TIE_GEN_SUBZONE_DETAIL):

USERID=MAuser&
PASSWORD=password&
QUERY_TYPE=TIE_GEN_SUBZONE_DETAIL&
BILLING_MONTH=10/2005&
START_DATE=10/01/2005 00:00&
END_DATE=10/02/2005 00:00&
SUBZONE_PTID=12345&
PTID=23111&

Response File (TIE_GEN_SUBZONE_DETAIL):

TIME_STAMP=12/21/2006 09:09
BID_TYPE=TIE_GEN_SUBZONE_DETAIL
START_DATE=10/01/2005 00:00
END_DATE=10/02/2005 00:00
DATA_ROWS=24

"10/01/2005 00:00","10/01/2005 ",0,"XYZ Company",23111,"ABC",123.456,123.654,"09/20/2006 08:48","TESTUSER","Y"
"10/01/2005 01:00","10/01/2005 ",0,"XYZ Company",23111,"ABC",123.456,123.654,"09/20/2006 08:48","TESTUSER","Y"
"10/01/2005 02:00","10/01/2005 ",0,"XYZ Company",23111,"ABC",123.456,123.654,"09/20/2006 08:48","TESTUSER","Y"
"10/01/2005 03:00","10/01/2005 ",0,"XYZ Company",23111,"ABC",123.456,123.654," 09/20/2006 08:48","TESTUSER","Y"
"10/01/2005 04:00","10/01/2005 ",0,"XYZ Company",23111,"ABC",123.456,123.654," 09/20/2006 08:48","TESTUSER","Y"
"10/01/2005 05:00","10/01/2005 ",0,"XYZ Company",23111,"ABC",123.456,123.654," 09/20/2006 08:48","TESTUSER","Y"
"10/01/2005 06:00","10/01/2005 ",0,"XYZ Company",23111,"ABC",123.456,123.654," 09/20/2006 08:48","TESTUSER","Y"
"10/01/2005 07:00","10/01/2005 ",0,"XYZ Company",23111,"ABC",123.456,123.654,………………

Example 2:

- User has access to all Gens/Ties/Subzone PTID's with values
- METER_VERIFICATION=**SUMMARY** option is requested, for a Month

Request File (TIE_GEN_SUBZONE_DETAIL):

USERID=MAuser&
PASSWORD=password&
QUERY_TYPE=TIE_GEN_SUBZONE_DETAIL&
BILLING_MONTH=10/2005&
METER_VERIFICATION=SUMMARY&

Response File (TIE_GEN_SUBZONE_DETAIL):

TIME_STAMP=12/21/2006 09:09
BID_TYPE=TIE_GEN_SUBZONE_DETAIL
DATA_ROWS=18
BILLING_MONTH=10/2005
START_DATE=10/01/2005
END_DATE=10/31/2005
SUBZONE_NUM=3
SUBZONE_NAME=Subzone AAA
SUBZONE_PTID=11111
GEN_SUM=1000.000, 998.000
TIE_SUM=1000.000, 998.000
SZ_SUM=1000.000
SUBZONE_NAME=Subzone BBB
SUBZONE_PTID=22222
GEN_SUM=2000.000, 1999.000
TIE_SUM=2000.000, 1999.000
SZ_SUM=2000.000
SUBZONE_NAME=Subzone CCC
SUBZONE_PTID=33333
GEN_SUM=3000.000, 2999.000
TIE_SUM=3000.000, 2999.000

Example 3:

- User has access to all Gens/Ties/Subzone PTID's with values
- METER_VERIFICATION=**DETAIL** option is requested, for a Month

Request File (TIE_GEN_SUBZONE_DETAIL):

USERID=MAuser&
PASSWORD=password&
QUERY_TYPE=TIE_GEN_SUBZONE_DETAIL&
BILLING_MONTH=10/2005&
METER_VERIFICATION=DETAIL&

Response File (TIE_GEN_SUBZONE_DETAIL):

TIME_STAMP=12/21/2006 09:09
BID_TYPE=TIE_GEN_SUBZONE_DETAIL
DATA_ROWS=38
BILLING_MONTH=10/2005
START_DATE=10/01/2005
END_DATE=10/31/2005
SUBZONE_NUM=3
SUBZONE_NAME=Subzone AAA
SUBZONE_PTID=11111
GEN_SUM=1000.000, 998.000
GEN_PTIDS=2
23111,500.000, 499.000
24111,500.000, 499.000
TIE_SUM=1000.000, 998.000
TIE_PTIDS=2
25111,500.000, 499.000
26111,500.000, 499.000
SZ_SUM=1000.000
11111,1000.000
SUBZONE_NAME=Subzone BBB
SUBZONE_PTID=22222
GEN_SUM=2100.000, 2094.999
GEN_PTIDS=3
23222,500.000, 499.000
24222,750.000, 749.000
24223,100.000, 99.999
GROUP_GEN
24000, 750.000   (Group Unit)
INDV_UNITS=3
24001,250.000, 249.000   (Indiv Unit)
24002,250.000, 249.000   (Indiv Unit)
24003,250.000, 249.000   (Indiv Unit)
TIE_SUM=2000.000, 1998.000
TIE_PTIDS=2
25222,500.000, 499.000
26222,1500.000, 1499.000
SZ_SUM=2000.000
22222,2000.000

SUBZONE_NAME=Subzone CCC
SUBZONE_PTID=33333
GEN_SUM=3000.000, 2998.000
GEN_PTIDS=2
23333,500.000, 499.000
24333,2500.000, 2499.000
TIE_SUM=3000.000, 2998.000
TIE_PTIDS=2
25333,500.000, 499.000
26333,2500.000, 2499.000

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 day.

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 three decimal places.

Data submitted via the LOAD_BUS_HOUR_DATA upload template is always preceded by a header that defines the following: "Bid Type" (LOAD_BUS_HOUR_DATA), the user's ID, the user's password, and the number of rows of data. An ampersand (&) defines the end of each entry field of the header.

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.

<u>Request File: Header Detail</u>

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 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 (20,3)	Hourly MW value reported by the meter authority for each PTID. Data entered may not exceed 3 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
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

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[3] For additional information concerning the treatment of 23 and 25- hour days, please refer to NYISO Technical Bulletins # 64 (25-hour day) and # 88 (23-hour day).

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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=username&
PASSWORD=password&
DATA_ROWS=8&
DATA_SUM=800&
UPLOAD_RESPONSE=Y&
12/1/2005 0:00,999991,100
12/1/2005 1:00,999991,100
12/1/2005 2:00,999991,100
12/1/2005 3:00,999991,100
12/1/2005 0:00,999999,100
12/1/2005 1:00,999999,100
12/1/2005 2:00,999999,100
12/1/2005 3:00,999999,100

Response File (LOAD_BUS_HOUR_DATA):

TIME_STAMP=07/01/2006 10:34
BID_TYPE=LOAD_BUS_HOUR_DATA
DATA_ROWS=8
DATA_SUM=800
999999,400
999991,400

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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=youruser&
PASSWORD=yourpassword&
DATA_ROWS=8&
DATA_SUM=800&
UPLOAD_RESPONSE=N&
12/1/2005 0:00,999991,100
12/1/2005 1:00,999991,100
12/1/2005 2:00,999991,100
12/1/2005 3:00,999991,100
12/1/2005 0:00,999999,100
12/1/2005 1:00,999999,100
12/1/2005 2:00,999999,100
12/1/2005 3:00,999999,100

Response File (LOAD_BUS_HOUR_DATA):

TIME_STAMP=07/1/2006 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: *One to ten supported, comma separated*	N
SUBZONE_PTID	Subzone PTID exactly as shown in MIS:	N

Variable Name	Value	Mandatory
	One subzone PTID per request	
START_DATE	MM/DD/YYYY HH24:MM *MM/YYYY must match the BILLING_MONTH field*	N
END_DATE	MM/DD/YYYY HH24:MM *MM/YYYY must match the BILLING_MONTH field*	N
VERSION	Invoice version number: *VERSION=0 will return the latest data received*	N
UPDATE_TIME_START	MM/DD/YYYY HH24:MM	N
UPDATE_TIME_END	MM/DD/YYYY HH24:MM	N
LOAD_VERIFICATION	SUMMARY, DETAIL *SUMMARY: Summary information on comparison between the TO submitted load and the NYISO calculated subzone load* *DETAIL: Same as summary with detail by bus PTID* *All other optional parameters ignored*	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: billing date, version, load bus PTID, Name of PTID, Metering Authority Hourly MWh Value, Update Date and Hour, Update User, Billed Flag

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(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 Y: Each hour of the month matches between Hourly LOAD and Hourly BUS_SUM N: Each hour of the month does not match	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 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=10/2005&
LOAD_VERIFICATION=SUMMARY&

Response File (LOAD_BUS_HOUR_DETAIL)

TIME_STAMP=12/21/2006 09:09
BID_TYPE=LOAD_BUS_HOUR_DETAIL
DATA_ROWS=8
BILLING_MONTH=10/2005
SUBZONE_NUM=1
SUBZONE_PTID=11111
MLOAD=2000.000
BUS_SUM=2000.000
DELTA=0
HOURS_MATCH=Y
BUS_PTIDS=2

Example 2:

- 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=10/2005&
LOAD_VERIFICATION=DETAIL&

Response File (LOAD_BUS_HOUR_DETAIL)

TIME_STAMP=12/21/2006 09:09
BID_TYPE=LOAD_BUS_HOUR_DETAIL
DATA_ROWS=58
BILLING_MONTH=10/2005

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SUBZONE_NUM=3
SUBZONE_NAME=AAA
SUBZONE_PTID=11111
MLOAD=2000.000
BUS_SUM=2000.000
DELTA=0.000
HOURS_MATCH=Y
BUS_PTIDS=2
100101,BUS_A1,1000.000
100102,BUS_B1,1000.000
SUBZONE_NAME=BBB
SUBZONE_PTID=22222
MLOAD=2000.000
BUS_SUM=2000.000
DELTA=0.000
HOURS_MATCH=Y
BUS_PTIDS=2
100991,BUS_A2,1000.000
100999,BUS_B2,1000.000
SUBZONE_NAME=CCC
SUBZONE_PTID=33333
MLOAD=2000.000
BUS_SUM=1800.000
DELTA=200.000
HOURS_MATCH=N
SDX-001=2
Hourly mismatch for 04/01/2006 00:00
Hourly mismatch for 04/01/2006 01:00

Example 3:

- A LSE user who is authorized to view 3 of their own busses across 3 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=10/2005&
LOAD_VERIFICATION=SUMMARY&

Response File (LOAD_BUS_HOUR_DETAIL)

TIME_STAMP=12/21/2006 09:09
BID_TYPE=LOAD_BUS_HOUR_DETAIL
DATA_ROWS=11
BILLING_MONTH=10/2005
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 4:

- A LSE user who is authorized to view 3 of their own busses across 3 subzones, requests a TOL Download with LOAD_VERIFICATION=DETAIL and receives an error. (LSE's are only authorized to see their own bus values):

Request File (LOAD_BUS_HOUR_DETAIL):

USERID=username&
PASSWORD=password&
QUERY_TYPE=LOAD_BUS_HOUR_DETAIL&
BILLING_MONTH=10/2005&
LOAD_VERIFICATION=DETAIL&

Response File (LOAD_BUS_HOUR_DETAIL)

TIME_STAMP=*12/21/2006 09:09*
BID_TYPE=*LOAD_BUS_HOUR_DETAIL*
DATA_ROWS=*9*
BILLING_MONTH=*10/2005*
SUBZONE_NUM=*2*
SUBZONE_PTID=*10001*
HOURS_MATCH=*Y*
100999,BUS_A1,1000.000
SUBZONE_PTID=*10002*
HOURS_MATCH=*N*
SDX-001=1
Hourly mismatch for *10/01/2005 00:00*

2.6 Download template for Metering Authority Subzone Load Data

The "Subzone Load" download template enables a Metering 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 MA may request data for a specific date, or an entire month, as specified by the user.

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

<u>Request File: Header Detail</u>

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: *One or more permitted, comma delimited*	N
START_DATE	DD/YYYY HH24:MM or MM/DD/YYYY HH24:MM *MM/YYYY must match the BILLING_MONTH field*	N
END_DATE	DD/YYYY HH24:MM or MM/DD/YYYY HH24:MM *MM/YYYY must match the BILLING_MONTH field*	N
VERSION	Invoice version number: *VERSION=0 will return the latest data received*	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 (integrated MWh), losses

Example 1:

Request File (SUBZONE_LOAD):

USERID=MAuser&
PASSWORD=password&
QUERY_TYPE=SUBZONE_LOAD&
BILLING_MONTH=10/2006&

Response File (SUBZONE_LOAD):

TIME_STAMP=05/22/2007 15:41
BID_TYPE=SUBZONE_LOAD
DATA_ROWS=0
"02/01/2007 00:00","02/01/2007",0,12345,2054.359,22.108
"02/01/2007 01:00","02/01/2007",0, 12345,1966.229,22.553
"02/01/2007 02:00","02/01/2007",0, 12345,1915.635,20.706
"02/01/2007 03:00","02/01/2007",0, 12345,1897.199,20.331
"02/01/2007 04:00","02/01/2007",0, 12345,1929.151,20.442
"02/01/2007 05:00","02/01/2007",0, 12345,2059.115,21.722
"02/01/2007 06:00","02/01/2007",0, 12345,2354.294,25.11
"02/01/2007 07:00","02/01/2007",0, 12345,2570.756,27.575
"02/01/2007 08:00","02/01/2007",0, 12345,2660.813,27.986
…

2.7 Download template for Invoice History

The "INVOICE_HIST" download template enables a user to download previous invoice dates for a specified billing month.

Data requests submitted via the INVOICE_HIST download template always includes a header that defines the "Query Type" (INVOICE_HIST), 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	INVOICE_HIST	Y
BILLING_MONTH	MM/YYYY	Y

Following successful submission of "INVOICE_HIST", 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	INVOICE_HIST	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: billing month, version number, invoice date, last update time

Example 1:

Request File (INVOICE_HIST):

USERID=MAuser&
PASSWORD=password&
QUERY_TYPE=INVOICE_HIST&
BILLING_MONTH=04/2006&

Response File (INVOICE_HIST):

TIME_STAMP=07/17/2007 13:24
BID_TYPE=INVOICE_HIST
DATA_ROWS=3
"04/01/2006 00:00",1,"05/05/2006 00:00","05/05/2006 19:46"
"04/01/2006 00:00",2,"09/08/2006 00:00","09/08/2006 11:50"
"04/01/2006 00:00",3,"05/07/2007 00:00","05/07/2007 15:37"

2.8 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 Marketplace Wholesale Load Bus Detail Page or by using the bidpost 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 Marketplace Wholesale Load Bus Detail Page or by using the bidpost download template for load busses (load_bus_hour_detail).

2.8.1 **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.

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: *VERSION=0 will return the latest data received*	Y
PTID	Generator PTID exactly as shown in MIS: *Up to 10 permitted, comma delimited*	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 value, Net Generation, 3rd Party PTID, 3rd Party Name, 3rd Party MW Allocation, 3rd Party Station Power Credit/Charge, Ancillary Service Charge, Remote Self Supply MW, NTAC Charge

Example 1:

Request File (STATION_POWER_REPORT):

USERID=MAuser&
PASSWORD=password&
QUERY_TYPE=STATION_POWER_REPORT&
BILLING_MONTH=03/2007&
VERSION=1&

Response File (STATION_POWER_REPORT):

TIME_STAMP=09/02/2001 07:35
BID_TYPE= STATION_POWER_REPORT
DATA_ROWS=721
"03/01/2007 00:00",12345,"Generator 12345",1,0,0,-1,123,"3rd Party Name",0,0,0,0,0
"03/01/2007 01:00",12345,"Generator 12345",1,0,0,-1,123,"3rd Party Name",0,0,0,0,0
"03/01/2007 02:00",12345,"Generator 12345",1,0,0,-1,123,"3rd Party Name",0,0,0,0,0
"03/01/2007 03:00",12345,"Generator 12345",1,0,0,1,123,"3rd Party Name",0,0,0,0,0
…

2.9 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.

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: *VERSION=0 will return the latest data received*	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

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Example 1:

Request File (DAILY_REC_DOLLAR):

USERID=NYISOuser&
PASSWORD=password&
QUERY_TYPE=DAILY_REC_DOLLAR&
START_DATE=01/01/2007&
END_DATE=01/31/2007&
VERSION=0&

Response File (DAILY_REC_DOLLAR):

TIME_STAMP=06/22/2007 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,
…

2.10 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.

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: *VERSION=0 will return the latest data received*	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

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Example 1:

Request File (DAILY_REC_MWH):

USERID=NYISOuser&
PASSWORD=password&
QUERY_TYPE=DAILY_REC_MWH&
START_DATE=01/01/2007&
END_DATE=01/31/2007&
VERSION=0&

Response File (DAILY_REC_MWH):

TIME_STAMP=06/22/2007 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,
…

3. UPLOAD/DOWNLOAD ERROR MESSAGES

The SDX will provide the user with an error message for requests, which are not able to be processed.

During upload/download processing, only the 1st error encountered in the request file will be returned to the user.

General Error Code – Not Specific to WBR Templates
Upload/Download Error – Invalid username/password, logon denied

SDX Error Code/Common template error messages
Upload/Download Error -- SDX-00001 Application error occurred while processing request.
Upload/Download Error -- SDX-00002   The {0} is missing
Upload/Download Error -- SDX-00003   The BILLING_MONTH must be in the format of MM/YYYY [{0}].
Upload/Download Error -- SDX-00004   The BILLING_MONTH, START_DATE and END_DATE month and year must be the same [{0}].
Upload/Download Error -- SDX-00005   User can only enter a SUBZONE_PTID or a PTID query parameter.
Upload/Download Error -- SDX-00006   Invalid Date format. Minutes must be set to 00 [{0}].
Upload/Download Error -- SDX-00007   Invalid Date format. Format must be MM/DD/YYYY HH:MM [{0}].
Upload/Download Error -- SDX-00008   The specified DATA_SUM {0} does not match the MWs sent {1}.
Upload/Download Error -- SDX-00009   Hour 25 not valid for Date specified [{0}].
Upload/Download Error -- SDX-00010   Hour 2 not valid for 23-hour day [{0}].
Upload/Download Error -- SDX-00011   Invalid hour value [{0}].
Upload/Download Error -- SDX-00012   No Date specified.

SDX Error Code/Load Bus Hour Data and Load Bus Hour Detail error messages
Upload/Download Error -- SDX-01001   Failed to update Bus Meter Data for user {0}
Upload/Download Error -- SDX-01002   Error occurred while updating Bus Meter Data records {0} through {1}.
Upload/Download Error -- SDX-01003   Invalid data row format [{0}].

Upload/Download Error --   SDX-01004   PTID {0} is not meter qualified.
Upload/Download Error --   SDX-01005   User {0} not authorized to submit meter data.
Upload/Download Error --   SDX-01006   User {0} not authorized for PTID {1}.
Upload/Download Error --   SDX-01007   Invoice Day Meter Versions not found for date [{0}].
Upload/Download Error --   SDX-01008   Bus is defunct. Insert/Update of data not permitted for ptid {0}.
Upload/Download Error --   SDX-01009   No download parameters entered. Cannot perform download.
Upload/Download Error --   SDX-01010   Duplicate load bus records sent for Date {0} and PTID {1}.
Upload/Download Error --   SDX-01011   User can only enter up to 10 PTIDs [{0}].

4. ACCESS THROUGH INTERACTIVE WEB DISPLAYS

4.1 Meter Reconciliation Link

Tie line, generator, subzone, and load bus data may be accessed, reviewed, and updated via an interactive MIS SDX feature. To use this feature, first, login to the NYISO MIS through the User Login page at http://www.nyiso.com/public/market_data/market_access.jsp, and then select the SDX Marketplace login. With the proper NYISO Digital Certificate, the User Login display will appear allowing the user to log into the NYISO MIS. For additional information related to logging into the NYISO MIS, please refer to Section 7 of the NYISO MPUG.

Once logged into the NYISO MIS select Metering Reconciliation as illustrated in Figure 3-1.
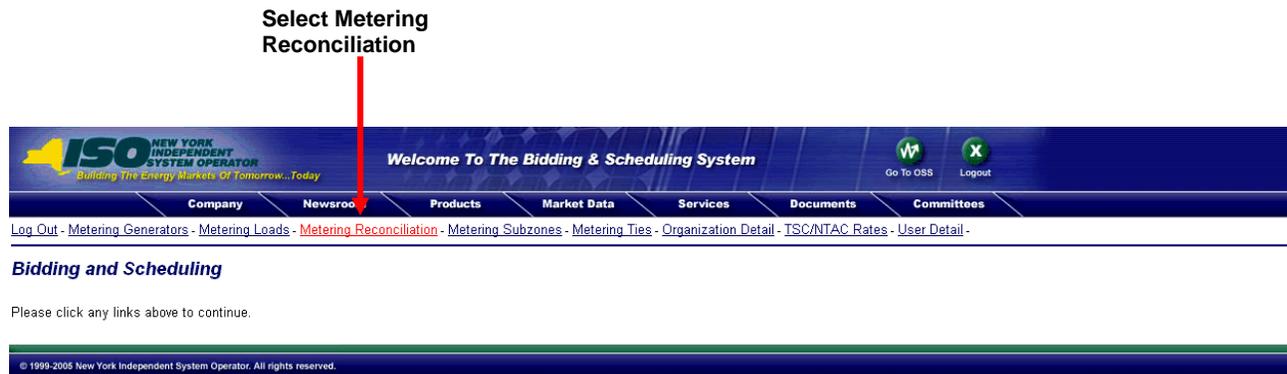
Figure 4 - Marketplace: Selection Menu Frame

After selecting the Metering Reconciliation link, the available Metering Reconciliation Reports will be available.

1. Calculated Subzone Load Report

2. Subzone Load Detail Report

3. Gen/Tie Detail Report

4. Wholesale Load Bus Detail Report

Show Invoice History

Each of the report query pages for the Meter Reconciliation reports includes a "Show Invoice History" button that provides the option of choosing a specific invoice version. When this button is selected, the query page will be regenerated with an additional menu that provides a list of all available versions for the specified billing month. By default, a report will represent the current metering information.

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Print to CSV

The data returned from each of the Meter Reconciliation reports includes an optional 'Print to CSV' feature. All the data displayed on the report is available in the CSV format. By selecting the Print to CSV button on the top of the screen, the user has the option to (1) open the data file or (2) save the data file.

Figure 5 - Print to CSV Pop-Up Screen

4.1.1 Calculated Subzone Load Query Page

The *Calculated Subzone Load* query page (refer to Figure 6 - Calculated Subzone Load Query Page) is the default page when the user selects the Metering Reconciliation link. Click on the "Report Type" button to access the other Metering Reconciliation query pages. A drop down menu lists the query options.

The *Calculated Subzone Load* query allows a meter authority to view their NYISO calculated subzone load for a specific month. 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 reporting options:

- ➢ Billing Month
- ➢ Start Date
- ➢ End Date
- ➢ Subzone

  - All Subzones: Click on the All button for all subzones in the listing

  - No Subzones: Click on the None button to clear all subzones in the listing

  - One or more Subzones: Either click on an individual subzone, or click on the 'CTRL' key and click on each Subzone in the listing, or click on the 'SHIFT' key and select the first and last Subzone to be included in the report

After the query, information is entered, click on *Submit* to retrieve the specified report, or *Reset* to clear the query fields.

Figure 6 - Calculated Subzone Load Query Page

After the query parameters have been selected, the *Calculated Subzone Load* results page (refer to Figure 7 - 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 title of the page includes the formula used for calculating the NYISO subzone load. Each column of data includes a component of the calculation (e.g. NYISO calculated subzone load, total of the generator and tie data and subzone losses).

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

Figure 7 - Calculated Subzone Load Results Page

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4.1.2 Subzone Load Detail Query page

The *Subzone Load Detail* query page (refer to Figure 8 - Subzone Load Detail Query Page) allows a meter authority to view the generator and tie 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 subzone, some 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:

- ➢ Billing Month

- ➢ Start Date/Time

- ➢ End Date/Time

- ➢ Subzone

  - • All Subzones: Click on the All button for all subzones in the listing

  - • No Subzones: Click on the None button to clear all subzones in the listing

  - • One or more Subzones: Either click on an individual subzone, or click on the 'CTRL' key and click on each Subzone in the listing, or click on the 'SHIFT' key and select the first and last Subzone to be included in the report

Figure 8 - Subzone Load Detail Query Page

After the query parameters have been submitted, the results page is displayed (refer to Figure 9 - Subzone Load Detail Results Page). 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. In addition, the Gen/Tie Total (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* screen, 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.

Figure 9 - Subzone Load Detail Results Page

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 below.

Page Ref: MA-4.3

Tie Details

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

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

Log:

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

Figure 10 – Tie Details Page

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.

1. 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.

2. 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.

4.1.3 **Gen/Tie Load Detail Query page**

The *Gen/Tie Detail* report allows a meter authority to focus on grouped or individual generators or tie-lines. The *Gen/Tie Load Detail* query page (refer to Figure 11 - Gen/Tie Detail Query Page) includes a drop down menu of all generators and ties for which the user has update authorization.

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

➢ Billing Month

➢ Start Date/Time

➢ End Date/Time

➢ Gen/Tie

Gen/Tie - **Selection**

- All Gen/Ties: Click on the All button for all subzones in the listing

- No Gen/Ties: Click on the None button to clear all subzones in the listing

- One or more Gen/Ties: Either click on an individual subzone, or click on the 'CTRL' key and click on each Gen/Tie in the listing, or click on the 'SHIFT' key and select the first and last Gen/Tie to be included in the report

Gen/Tie - **Type**

- All Gens and Ties: Click on the All radio button

- Generators only: Click on the Generators radio button

- Ties only: Click on the Ties radio button

Gen/Tie – **Sort by**

- Selection list ordered by PTID: Click on the PTID radio button

- Selection list ordered by PTID name: Click on the Name radio button

Figure 11 - Gen/Tie Detail Query Page

The report output (refer to Figure 12 - Gens/Ties Hourly Load Detail Results Page) only displays the generators or ties 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, PTID and, secondly, by the PTIDs associated with grouped units.

Page Ref: B-14-3

Gens/Ties Hourly Load Detail

Query Criteria:

Query Type:	Gens/Ties Hourly Load Detail	**PTID:**	00000
Start Date/Time:	01/01/2007 00:00 EST	**Name:**	Name 65
End Date/Time:	01/01/2007 01:00 EST		Print to CSV
Version:	0		

Date/Time: 01/01/2007 00:00:00 EST   **Bill Date:** 01/01/2007

Ptid	Ptid Name	Type	MA Reported MWH	ISO PTS MWH	Last Updated	Last Updated User
23516	Name 65	GEN	.0000	.0000	01/02/2007 06:01	

Date/Time: 01/01/2007 01:00:00 EST   **Bill Date:** 01/01/2007

Ptid	Ptid Name	Type	MA Reported MWH	ISO PTS MWH	Last Updated	Last Updated User
23516	Name 65	GEN	.0000	.0000	01/02/2007 06:01	

Anomaly Legend: † ≥ ±5% and <±10% Anomaly   ‡ ≥ ±10% Anomaly   * Null PTS Value Anomaly

Figure 12 - Gens/Ties Hourly Load Detail Results Page

4.1.4 **Wholesale Load Bus Detail Query page**

After a meter authority reviews their NYISO calculated subzone load figures, they then proceed to upload their Wholesale Load Bus information.

From the *Wholesale Load Bus Detail* query page (refer to Figure 13 - Wholesale Load Bus Detail Query Page), the user has the ability 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:

➢ Billing Month

➢ Start Date/Time

➢ End Date/Time

➢ Subzone

- All Subzones: Click on the All button for all subzones in the listing

- No Subzones: Click on the None button to clear all subzones in the listing

- One or more Subzones: Either click on an individual subzone, or click on the 'CTRL' key and click on each Subzone in the listing, or click on the 'SHIFT' key and select the first and last Subzone to be included in the report
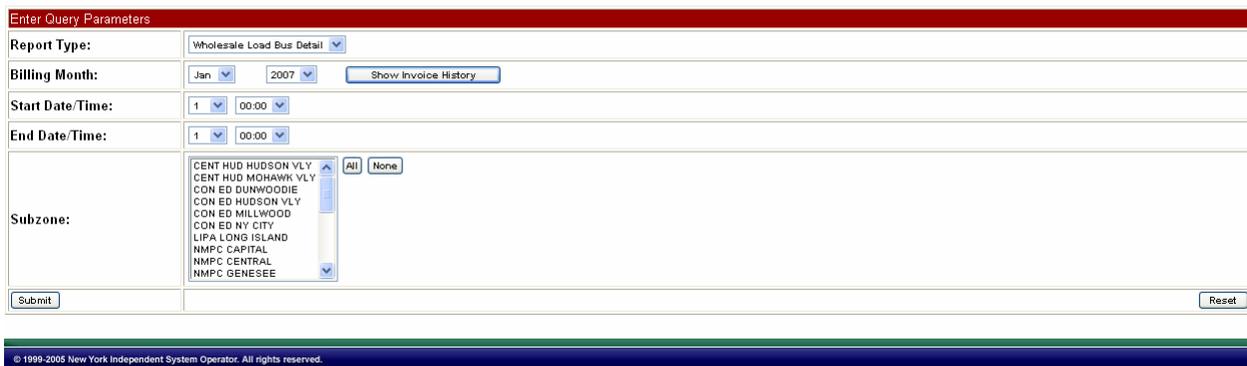
Figure 13 - Wholesale Load Bus Detail Query Page

Once the query criteria are entered, the *Wholesale Load Bus Detail* results page (refer to Figure 14 - Wholesale Load Bus Detail Results Page) is displayed with the PTIDs for which the meter authority is responsible. The user can report and submit wholesale load bus data from this display.

Figure 14 - Wholesale Load Bus Detail Results Page

4.2 User Detail Link

A user may review information pertaining to the privileges assigned to the user via the User Detail link Figure 4 - Marketplace: Selection Menu Frame

After selecting the User Detail link, the following screen is displayed to the user.

Figure 15 - User Detail Page

Links at the top of the User Detail page provide access to additional displays that define the specific loads, ties, subzones, and generators that the individual user is authorized to view, as well as information about the organization (refer to Figure 16 - Organization Information/Details Page).

4.3 Organization Detail Link

A user may review information pertaining to an Organization associated with the user via the Organization Detail link (refer to Figure 4 - Marketplace: Selection Menu Frame). The Organization Detail page displays information about the organization.

After selecting the Organization Detail link, the following screen is displayed to the user.

Figure 16 - Organization Information/Details Page

4.4 Metering Generators Link (Loads, Subzones and Ties)

The Metering Generators page displays the generators for which the user is authorized to view metering data. A user may review information pertaining to Metering Generators associated with the user via the Metering Generators link (refer to Figure 4 - Marketplace: Selection Menu Frame).

After selecting the Metering Generators link, the following screen is displayed to the user.

Page Ref: MA-1.2

Metering Generators

User FLINSTONE is currently authorized for these Generators:

ALGAMAE GEM	FLAGSTONE	MARBLE PARRISH	SLATEVILLE
BASALT	GRANITE CITY	ROCK VEGAS	
BEDROCK	LIMESTONE VALLEY	SANDSTONE ACRES	

Figure 17 - Metering Generators Page

Similar pages display the same information with respect to **Metering Loads**, **Metering Subzones**, and **Metering Ties**.

5. MARKET PARTICIPANT ADMINISTRATOR WEB PAGES

The Market Participant Administrator web pages enable the meter authority's system administrator to assign and control access to the SDX functions. Through the use of these administrator web pages, the system administrator can permit or deny access to select bus, load and subzone information, and readily alter the assigned permissions. For additional information about administrative tasks, please refer to Section 6 of the NYISO MPUG.

To access the Market Participant Administrator web pages, login via the Administrator login page from the NYISO MIS home page. Select "Organization Users" from the Administrator Menu frame, and then select the desired organization and click on "Display" to view the users associated with that organization. Select the desired user to access the *User Detail* page (refer to Figure 18 - User Detail Page) for that user.

Figure 18 - User Detail Page

To assign meter data submission privileges to an individual user, click on the "Metering" checkbox on the lower left of the *User Detail* page.

The *User Detail* page includes hyperlinks to additional administrative web pages that enable the system administrator to grant permissions to an individual user to view metering data for specific generators, loads, ties, and subzones.

5.1 Metering Generators Permissions Page

This page is accessed via the hyperlink located at the bottom of the *User Detail* page (refer to Figure 18 - User Detail Page). The *Metering Generators* page (refer to Figure 19 - Metering Generators Page) enables the system administrator to view the generators that the selected user is authorized to submit metering data for, and provides the mechanism to change the authorizations.

Figure 19 - Metering Generators Page

To add a generator to the authorized list, select the generator from the "Add Generators" list and click on submit. The selected generator will be added to the authorized list for that user. To remove authorization for a generator, select the generator to be removed from the "Remove Generators" list and then click on submit. The approved generators list for that user will reflect the change.

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The generators listed as "Generators for which user currently authorized to view data" also serve as hyperlinks to Generator Parameters pages (refer to Figure 20 - Generators Parameters Page) that provide additional information about the selected generator.

Figure 20 - Generators Parameters Page

5.2 Metering Loads Permissions Page

This page is accessed via the hyperlink located at the bottom of the *User Detail* page (refer to Figure 18 - User Detail Page). The *Metering Loads* page (refer to Figure 21 - Metering Loads Permissions Page) enables the system administrator to view the loads that the selected user is authorized to submit metering data for, and provides the mechanism to change the authorizations.
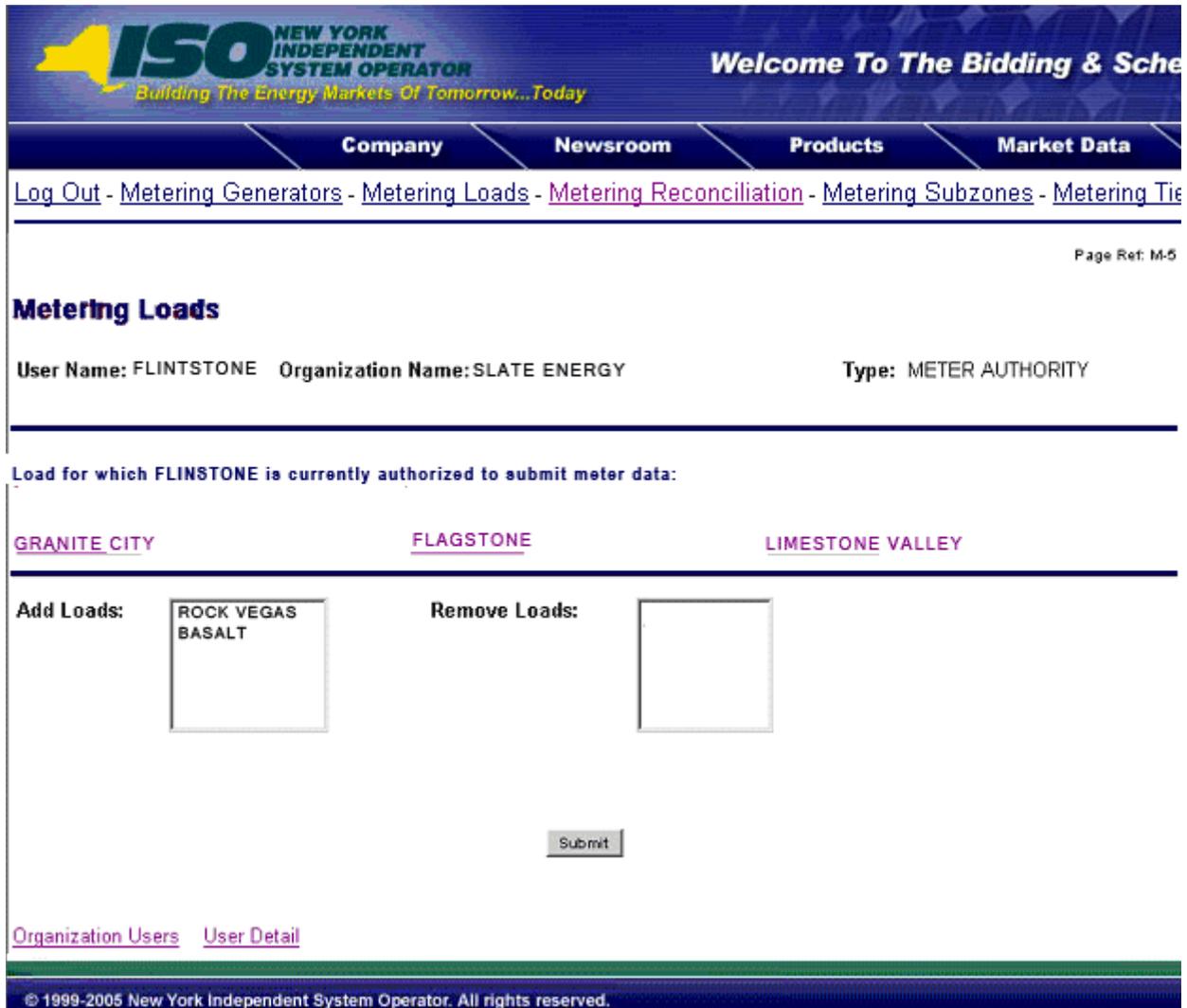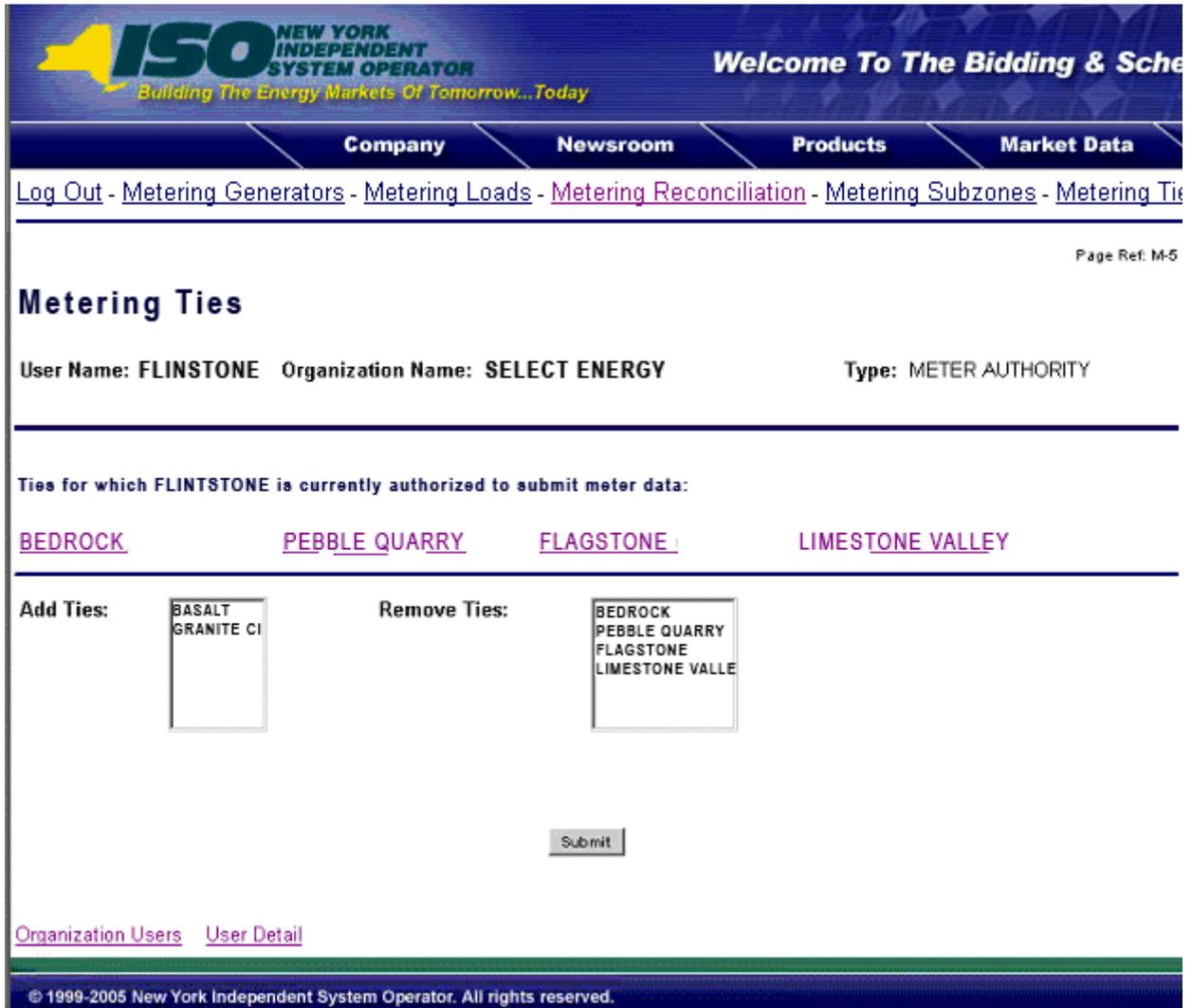

Figure 21 - Metering Loads Permissions Page

To add a load to the authorized list, select the load from the "Add Loads" list and click on submit. The selected loads will be added to the authorized list for that user. To remove authorization for a load, select the load to be removed from the "Remove Loads" list and then click on submit. The approved loads list for that user will reflect the change.

The loads listed as "Loads for which user currently authorized to view" also serve as hyperlinks to Load Details pages (refer to Figure 22 - Load Details Page) that provide additional information about the selected load.

Figure 22 - Load Details Page

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5.3 Metering Ties Permissions Page

This page is accessed via the hyperlink located at the bottom of the *User Detail* page (refer to Figure 18 - User Detail Page). The *Metering Ties* page (refer to Figure 23 - Metering Ties Permission Page) enables the system administrator to view the ties that the selected user is authorized to submit metering data for, and provides a mechanism to change the authorizations.

Figure 23 - Metering Ties Permission Page

To add a tie to the authorized list, select the tie from the "Add Ties" list and click on submit. The selected ties will be added to the authorized list for that user. To remove authorization for a tie, select the tie to be removed from the "Remove Ties" list and then click on submit. The approved ties list for that user will reflect the change.

The ties listed as "Ties for which user currently authorized to view" also serve as hyperlinks to Tie Details pages (refer to Figure 24 - Ties Details Page) that provide additional information about the selected tie.

Figure 24 - Ties Details Page

5.4 Metering Subzones Permissions Page

This page is accessed via the hyperlink located at the bottom of the *User Detail* page (refer to Figure 18 - User Detail Page). The *Metering Subzones* page (refer to Figure 25 - Metering Subzones Permissions Page) enables the system administrator to view the subzones that the selected user is authorized to submit metering data for, and provides a mechanism to change the authorizations.

Figure 25 - Metering Subzones Permissions Page

To add a subzone to the authorized list, select the subzone from the "Add Subzone" list and click on submit. The selected subzone will be added to the authorized list for that user. To remove authorization for a subzone, select the subzone to be removed from the "Remove Subzones" list and then click on submit. The approved subzones list for that user will reflect the change.

The subzones listed as "Subzones for which user currently authorized to view" also serve as hyperlinks to Subzone Details pages (refer to Figure 26 - Subzone Details Page) that provide additional information about the selected subzone.

Figure 26 - Subzone Details Page

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