UG 18

Voltage Support Test Data System User's Guide

Issued: February 2023

Version: 3.0

Effective Date: 02/15/2023

Recertified: 02/15/2023

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Revision History

Version	Date	Revisions
1.0	06/22/2016	Initial Release
2.0	05/11/2018	Included ability to rollback test submission, changed screenshots to reflect current NYISO branding, corrected references in user role privilege matrix. Added figure titles and Table of Figures.
2.1	05/18/2020	Updated screen-shots of NYISO main page, and clarified the narrative describing how to navigate the Voltage Support Test Data System.
2.2	10/11/2021	Updated submission status descriptions based on software changes
3.0	02/15/2023	Recertified Global ➤ Updated broken reference links Table of Figures ➤ Updated table formatting Section 1.1. ➤ Updated NYISO Ancillary Services Manual section reference from Section 3.6.5. to Section 3.6.6.

1. Introduction

The purpose of this Voltage Support Test Data System User Guide is to describe the features that are available to Market Participants, and to provide the information necessary to submit Leading and Lagging test data. This application replaces the manual process for voltage support test data submission.

This user guide has been organized in the following fashion:

- Section 1 – General introduction.
- Section 2 – Describes the hardware and software requirements to access the Voltage Support Test Data System.
- Section 3 – Presents a roadmap of the Voltage Support Test Data System and the roles of the various users.
- Section 4 – Describes how to view test data saved/submitted for each Treatment Group
- Section 5 – Describes how to view test data saved/submitted for each Member Unit.
- Section 6 – Describes how to enter and submit Leading test data entries.
- Section 7 – Describes how to enter and submit Lagging test data entries.
- Section 8 – Describes how to create a batch unit extract file.

1.1. Definition of the Voltage Support Test Data System (VSTDS)

The Voltage Support Test Data System is designed for Market Participants that are a part of the NYISO Voltage Support Service. This program is overseen by the NYISO VSS Administrator. The Voltage Support Test Data System is a user friendly, secure, web-based application that allows Market Participants to input, update, delete, save, submit, review and view their Leading and Lagging Test Data. This process consists of the following steps:

1. Market Participants will access the VSTDS application to enter test data, review entries, and save/submit test data.
2. NYISO Administrator will review each test data submission, and will approve/reject submissions.
3. Market Participant are allowed to submit entries during the following periods:
   - In-Period: Test Dates for this option include:
     a. Leading test period is from 1/1 to 10/31
     b. Lagging test period is from 5/1 to 10/31
     c. Must be submitted to the NYISO within ten business days of the test
   - Operational: operational data must be submitted to the NYISO within 10 business days of the end of the test period.
   - Out-of-Period: A test taking place outside of the normal test period pursuant to Section 3.6.6. of the NYISO Ancillary Services Manual.

> ***Note:*** The VSTDS application will always display the best leading and lagging value. Best Leading value is the largest accepted absolute leading value. Best Lagging value is the largest accepted absolute lagging value.

1.2. Obtaining Help and Handling Error Messages

When help is required while using the Voltage Support Test Data System software, please contact your Stakeholder Services representative.

Error messages may appear occasionally while using this software. These messages will display in a popup window with information about the error. After reading the message, close the window and proceed. If additional help or information is needed, please contact your Stakeholder Services representative.

2. User Requirements

The computer requirements for the user to run the Voltage Support Test Data System are described in this section.

2.1. Browser Recommendations

The NYISO currently supports Internet Explorer Version 11 (IEv11) and Mozilla Firefox (version 45.x). If you have an older version of that browser (IEv9, IEv10, Firefox 44, Firefox 43, etc.) you may experience difficulties using Voltage Support Test Data System.

2.2. Digital Certificates

All users must have a valid digital certificate linked to their respective MIS account, installed on their respective computers, and specific to their browser in order to access the NYISO Voltage Support Test Data System.

For more information on digital certificates (including applying, exporting, obtaining, installing, and validating) please see Market Participant User's Guide, Section 4.4, *Digital Certificates*, at:

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

Users of the Voltage Support Test Data System do not need to obtain an additional digital certificate. Existing MIS accounts need to be set-up with Voltage Support Test Data System privileges, which may be done by the MIS Administrator of the user's organization.

2.3. Logging in to the Voltage Support Test Data System

⌨ ***To log in to the Voltage Support Test Data Systems — MPs and NYISO Admins***

> ***Note:*** In order to access the Voltage Support Test Data System, the user must have Voltage Support Test Data System privileges.
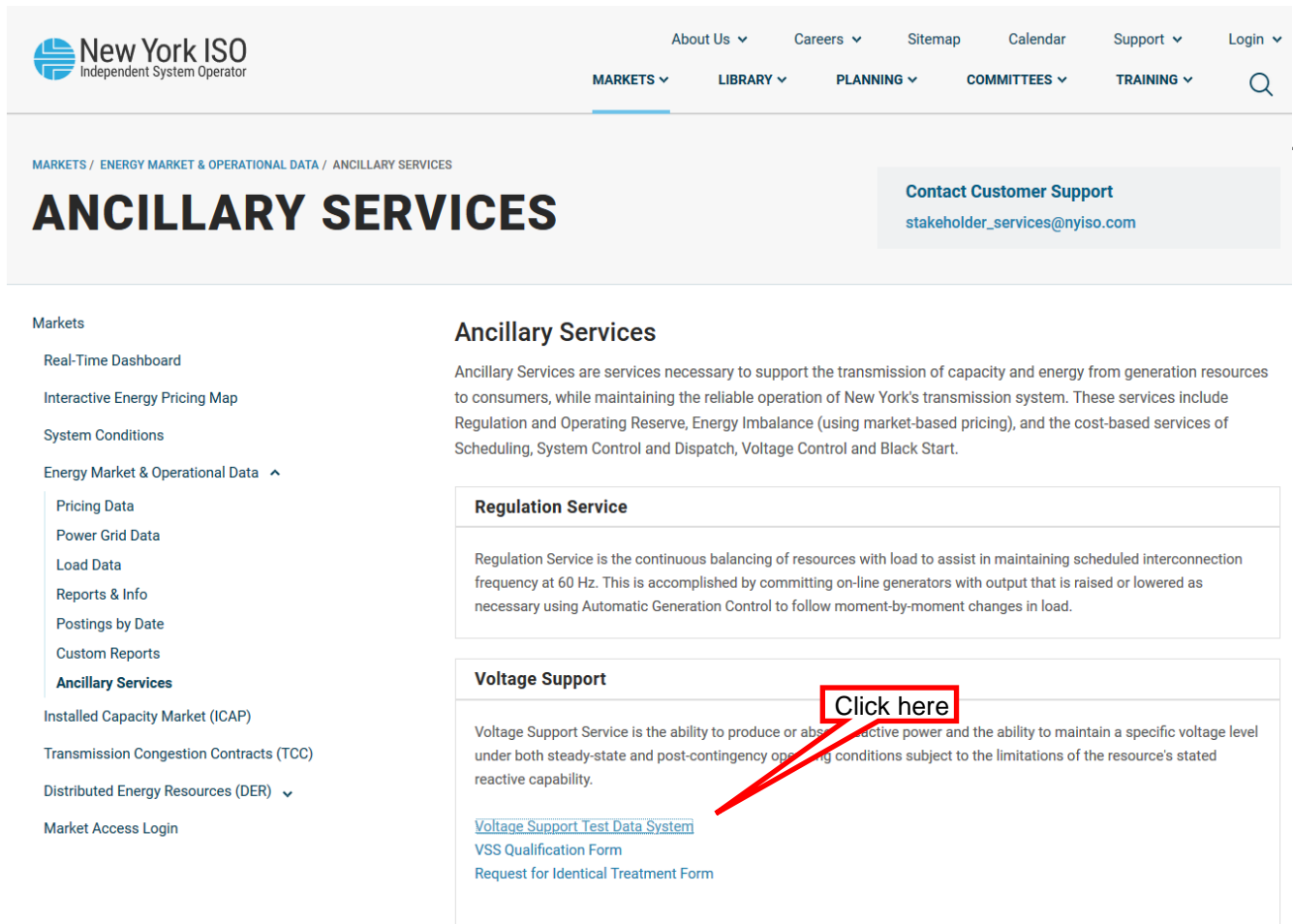
There are two ways to navigate to the VSTDS. You may either follow a link as described below, or enter the following URL into your browser's navigation bar: **https://rtdms.nyiso.com/**

If you would prefer to follow a link, begin on the NYISO home page (https://www.nyiso.com/). From the **Markets** drop down menu, click on the **Ancillary Services** link as shown in Figure 1.

Figure 1: NYISO Home Webpage
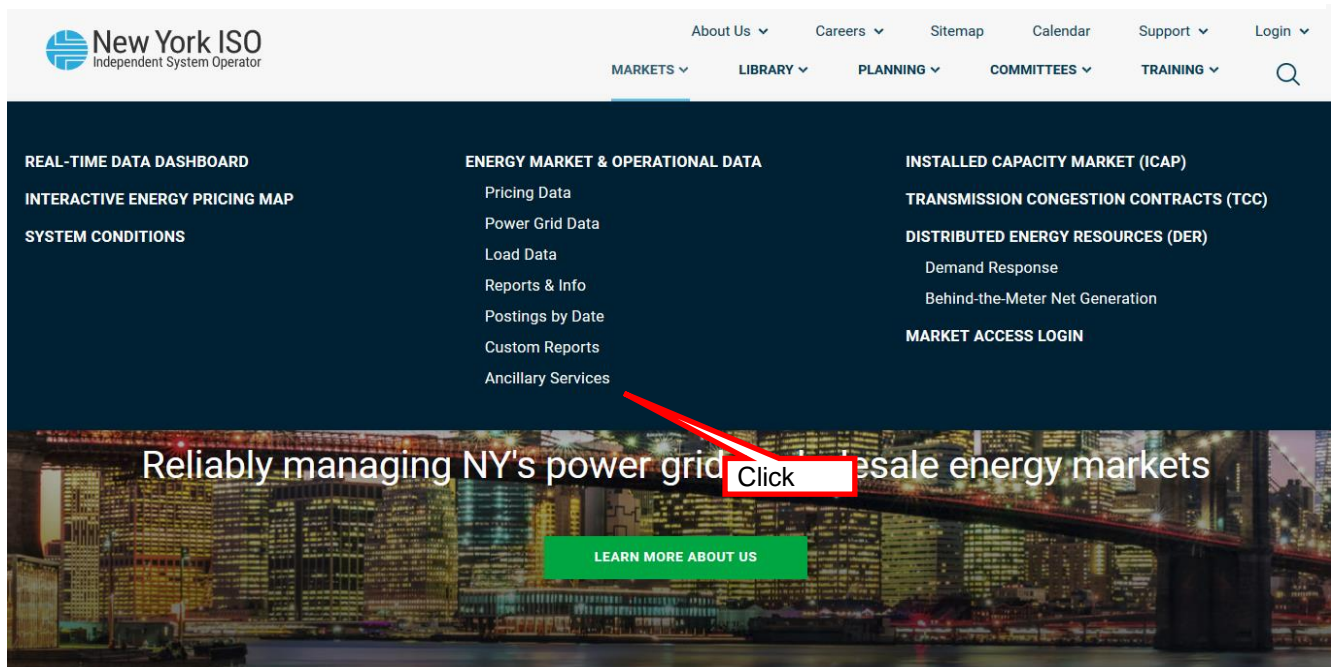
Figure 2: Follow the link to the Voltage Support Test Data System

Figure 3: Login to Voltage Support Test Data System
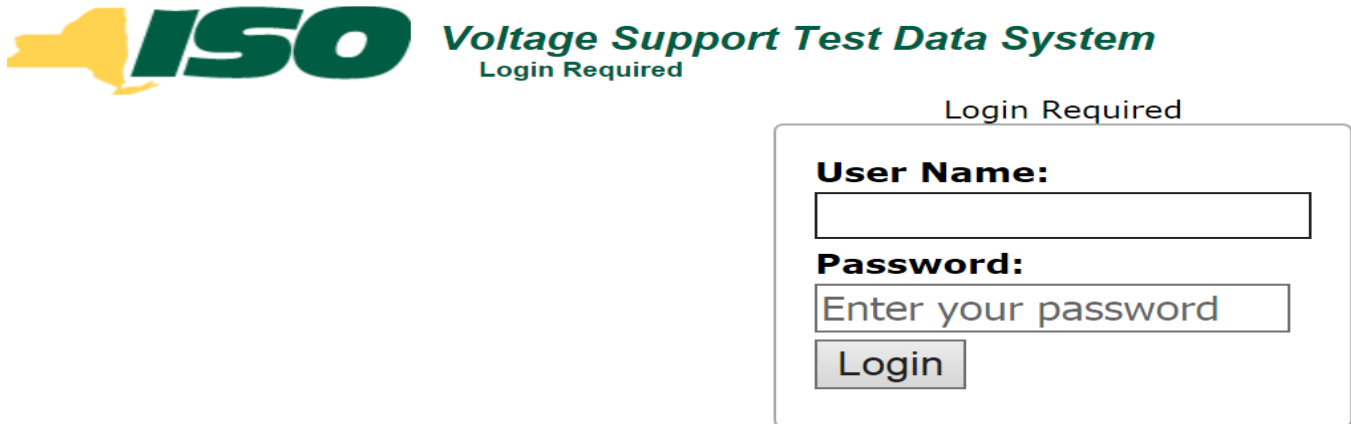
You will now be taken to the Submission Summary screen of the VSTDS. Here you can view a summary of your data submissions for the year, including the current review status, and total MVAr compensation awarded for approved tests for each Treatment Group. This screen should look very similar to Figure 4.
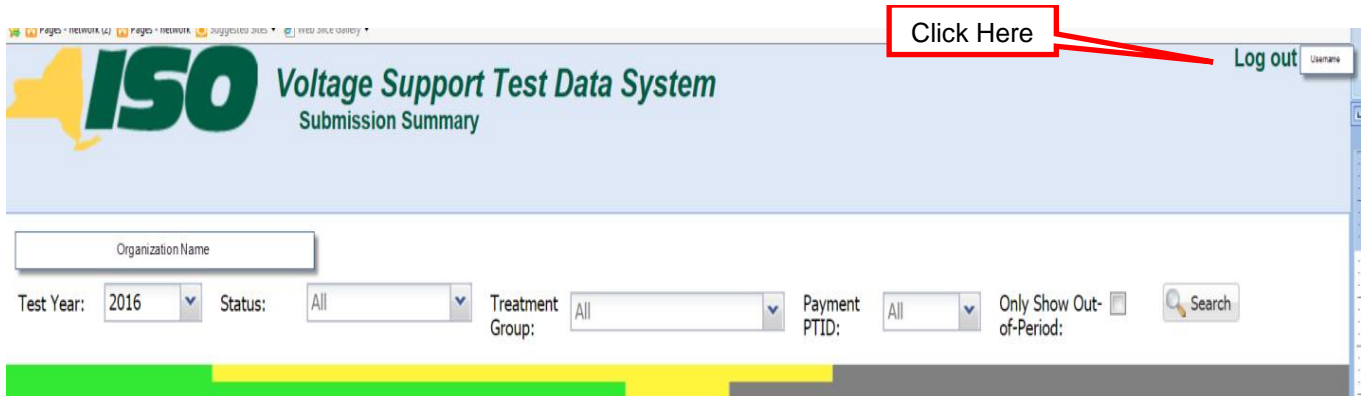
Figure 4: Voltage Support Test Data System Submission Summary Page

⌨ *To log out of the Voltage Support Test Data System*

1. On the main screen, click the **Log Out** item as illustrated on Figure 5 below.

Figure 5: Log Out of the Voltage Support Test Data System.

2. A dialog box will appear as illustrated on Figure 6 below.

Figure 6: Log Out of the Voltage Support Test Data System.

3. Voltage Support Test Data System User Role Privileges

3.1. Matrix of Role Privileges

The Matrix of Role Privileges for the Voltage Support Test Data System is shown in the following Figure 7. This matrix lists all of the functions in the Voltage Support Test Data System (VSTDS) and shows the read (R) and write (W) access privileges for both the MP and the NYISO Voltage Support Administrator. Each of the listed functions is described in the following sections.

Figure 7: Voltage Support Test Data System Role Privileges Matrix.

Refer Section	VSTDS Functions	MP	NYISO Admin
4	**Submission Summary Screen**	R/W	R
5	**Submission Details Screen**		
6	**Leading Tests**		
	Add Leading Test Data	R/W	R
	Update Leading Test Data	R/W	R
	Delete Leading Test Data	R/W	R
	Submit Leading Test Data	R/W	R
7	**Lagging Tests**		
	Add Lagging Test Data	R/W	R
	Update Lagging Test Data	R/W	R
	Delete Lagging Test Data	R/W	R
	Submit Lagging Test Data	R/W	R
8	**Export Batch Unit**	R/W	R

R   Read access only

R/W   Read and write access

4. Submission Summary

Pre-Requisite: Section 4 assumes the user has logged on to the Voltage Support Test Data System. If this is not the case, complete the procedure outlined in .

You can navigate to the Submission Summary for any Treatment Group with test data entered and saved/submitted.

Read Access: NYISO Admin, Market Participants

Write Access: Market Participants

Figure 8: Searching for a Submission Summary.
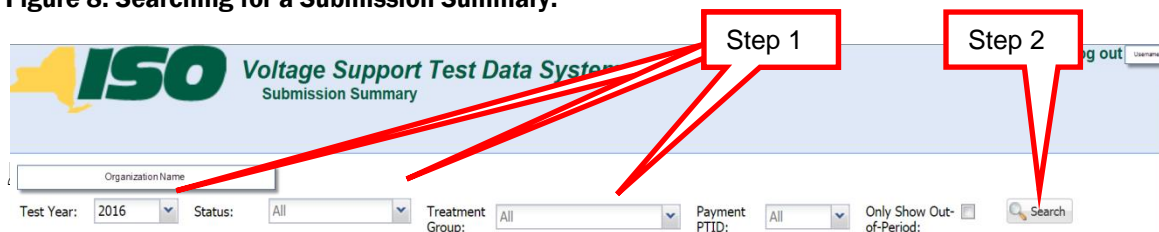
1. Perform a search of Treatment Group test data, specifying criteria as follows:

    a) From the **Year** field, choose individual year

    b) Choose the criteria for **Status**:

        • *Not Submitted:* test data may have been entered and saved but not submitted for NYISO review OR test data may require ministerial correction prior to NYISO review.

        • *Rejected:* test has been rejected by NYISO for failing to meet test requirements.

        • *Pending Validation:* Test is currently undergoing validation checks.

        • *Ready For Approval:* Pending NYISO approval.

        • *Under Review:* Requires additional review by NYISO.

        • *Approved:* Approved for payment.

    c) Choose the criteria for **Treatment Group –** this will only include the Treatment Group that belongs to your Organization.

    d) Choose the criteria for **Payment PTID –** the PTID that a unit or group payment will be made to.

    e) Choose **Only Show Out-of-Period** if you want to search for Out-of-Period test data only.

2. Click the **Search** button.

The search results will be displayed (as shown in the following Figure 9).

Figure 9: Example of Submission Summary Search Results.

5. Submission Summary Details

> **Pre-Requisite**: Section 5 assumes the user has logged on to the Voltage Support Test Data System. If this is not the case, complete the procedure outlined in <u>Section 2.3</u>.

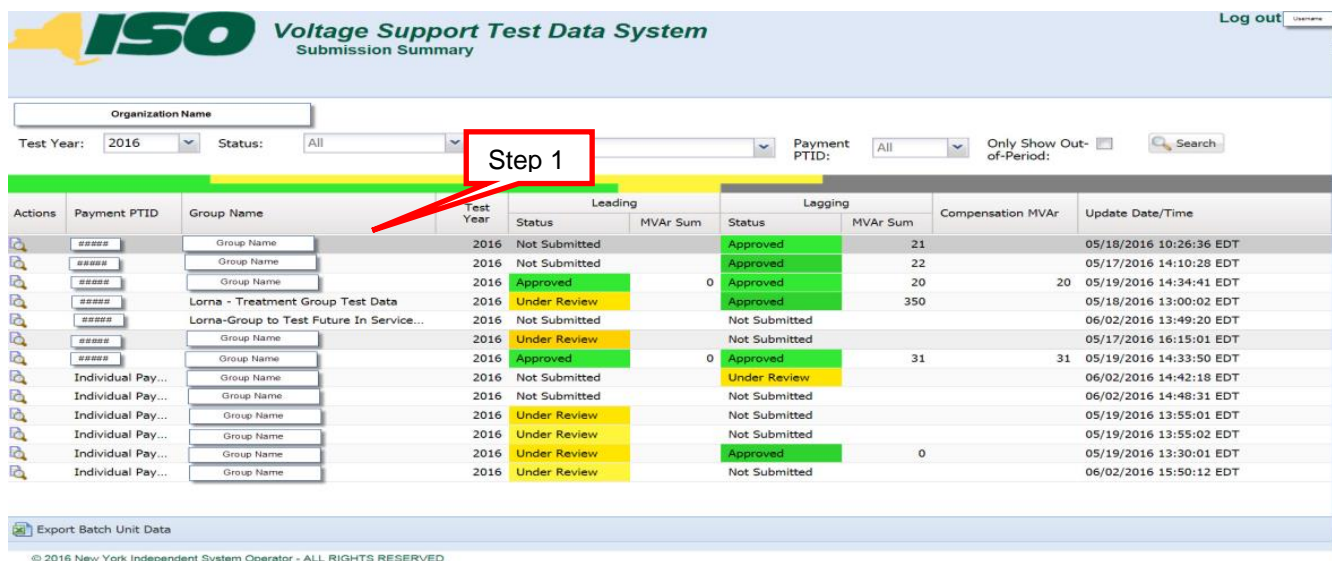You can navigate to the Submission Summary for any Treatment Group with test data entered and saved/submitted.

Read Access: NYISO Admin, Market Participants

Write Access: Market Participants

🖥️   ***To navigate to the Submission Summary Details screen***

1. From the Submission Summary screen, select the Treatment Group you want to view as shown in Figure 10 below.

Figure 10: Selecting a Submission Summary for a Treatment Group.

2. The system will display the Submission Summary Details for the selected Treatment Group as illustrated in Figure 11 below.

Figure 11: Submission Summary Details for a Particular Treatment Group.

6. Leading Test Data Entry

Pre-Requisite: Section 6 assumes the user has logged on to the Voltage Support Test Data System. If this is not the case, complete the procedure outlined in <ins>Section 2.3</ins>.

You can navigate to the Adding Leading Test Data for any Treatment Group with test data entered and saved/submitted.
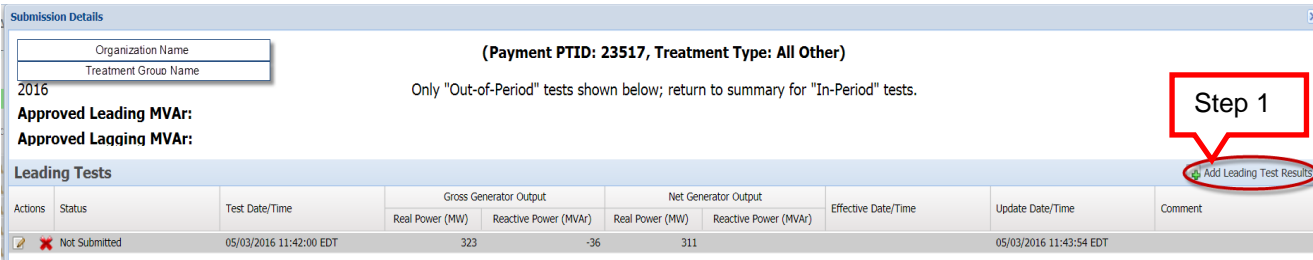
Read/Write Access: Market Participants

🖳 *To navigate to the Adding Leading Test Data screen*

1. From the Submission Detail screen, click **Add Leading Test Results** as illustrated in Figure 12 below.

Figure 12: Navigate to the Adding Leading Test Results Screen.

2. The system will load the Adding Leading Test Data screen as illustrated in Figure 13 below.

Figure 13: The Adding Leading Test Data Screen.

3. Select Test Date/Time.
4. Select Test type (In-Period, Operational Data or Out-of-Period)
5. Enter the following VSS Leading test data:
   - Choose test type Gross Generator Output
     - Real Power (MW)
     - Reactive Power (MVAr)
   - Net Output to System
     - Real Power (MW)
     - Reactive Power (MVAr)
   - Hydrogen Pressure (PSIA)
   - Generator Terminal Voltage
     - Gen Terminal
     - Auxiliary Bus
   - Tap Positions
     - GSU
     - Auxiliary Bus

- In-plant Aux Station Service Load
  - MW
  - MVAr
- Comment

6. After entering test data, the user can do the following

   a) *Save:* the status will be set to "Not Submitted"

   b) *Submit:* the status will be set to either "Ready for Approval", "Under Review", or "Pending Approval".

   c) *Cancel:* test entry will not be saved, and system returns to previous screen.

7. Lagging Test Data Entry

> **Pre-Requisite**: Section 7 assumes the user has logged on to the Voltage Support Test Data System. If this is not the case, complete the procedure outlined in Section 2.3.
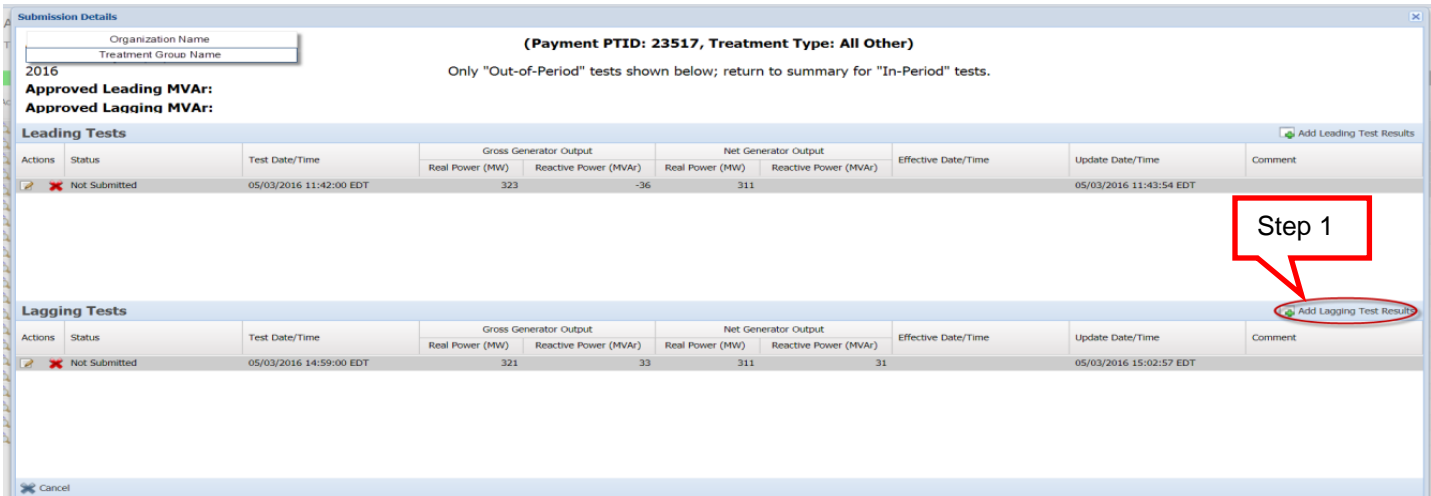
You can navigate to the Adding Lagging Test Data screen for any Treatment Group you have saved/submitted test data for.

Read/Write Access: Market Participants

⌨ ***To navigate to the Adding Lagging Test Data screen***

1. From the Submission Detail screen, click **Add Lagging Test Results** as illustrated in Figure 14 below.
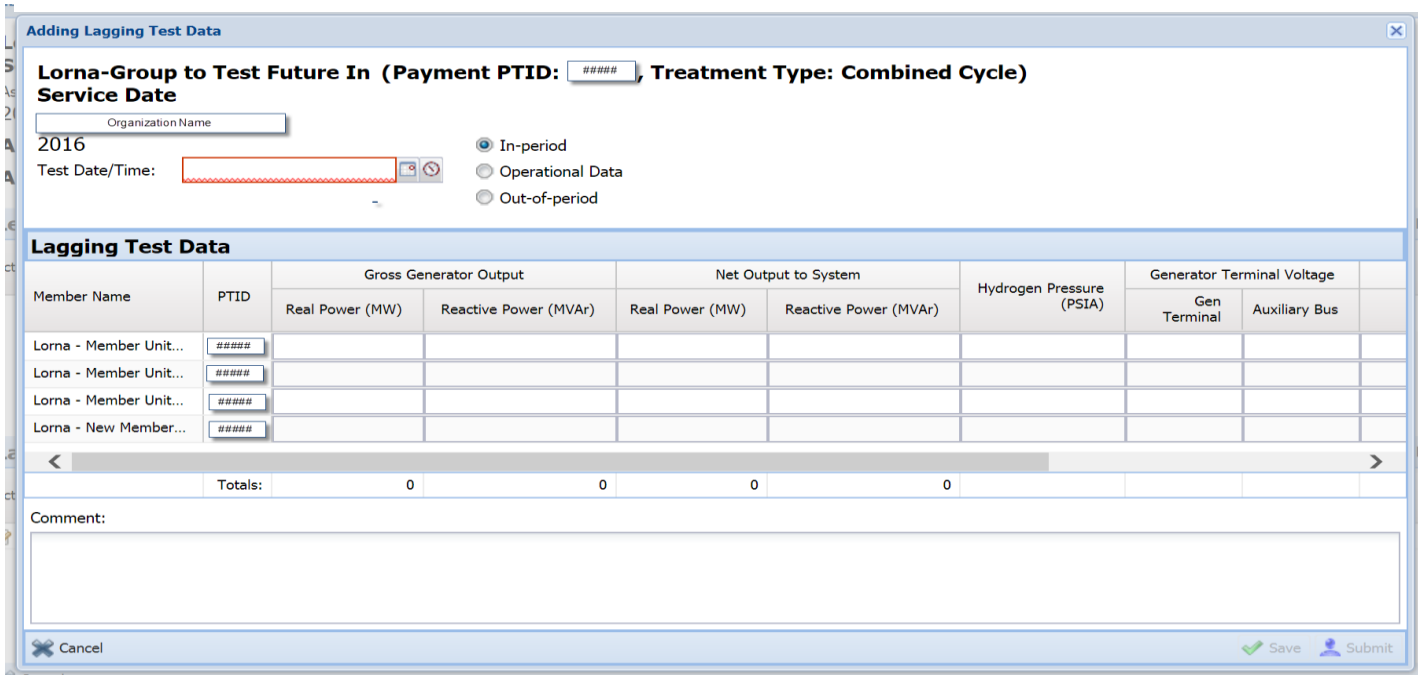
Figure 14: The Adding Lagging Test Data Screen.

2. The system will load the Adding Lagging Test data screen as illustrated in Figure 15 below.

Figure 15: The Adding Lagging Test Data Screen.

3. Select Test Date/Time.
4. Select Test type (In-Period, Operational Data or Out-of-Period)
5. Enter the following VSS Lagging test data:
   ▪ Choose test type Gross Generator Output
      • Real Power (MW)
      • Reactive Power (MVAr)
   ▪ Net Output to System
      • Real Power (MW)
      • Reactive Power (MVAr)
   ▪ Hydrogen Pressure (PSIA)
   ▪ Generator Terminal Voltage
      • Gen Terminal
      • Auxiliary Bus
   ▪ Tap Positions
      • GSU
      • Auxiliary Bus
   ▪ In-plant Aux Station Service Load
      • MW

- MVAr
  - Comment

6. After entering test data, the user can do the following

   a) *Save:* the status will be set to "Not Submitted"

   b) *Submit:* the status will be set to either "Ready for Approval", "Under Review", or "Pending Approval".

   c) *Cancel:* test entry will not be saved, and system returns to previous screen.

8. Export Batch Unit Data

> ***Pre-Requisite***: Section 8 assumes the user has logged on to the Voltage Support Test Data System. If this is not the case, complete the procedure outlined in Section 2.3.

Market Participants can create an export file (.xls or .csv format) of the Member Units with test data entries.

Read Access: Market Participants

Write Access: Market Participants

⌨ ***To Export Batch Unit Data***

1. From the Submission Summary screen, click **Export Batch Unit Data** illustrated in Figure 19 below.

Figure 16: Export Batch Unit Data.

2. The system will create a batch unit file which will only include the

In-Period Test Data for the selected Test Year, and will contain the following information:

- Group Name
- Payment PTID
- Compensation MVAR
- Group Type
- Organization Name
- Test Year
- Test Type
- Test Date/Time
- Member Name
- PTID
- Gross Generator - Real Power (MW)
- Gross Generator - Reactive Power (MVAr)
- Net Generator - Real Power (MW)
- Net Generator - Reactive Power (MVAr)
- Hydrogen Pressure (PSIA)
- Generator Terminal Voltage - Gen Terminal
- Generator Terminal Voltage - Auxiliary Bus
- Tap Positions – GSU
- Tap Positions - Auxiliary Bus
- In-plant Aux Station Service Load - Real Power (MW)
- In-plant Aux Station Service Load - Reactive Power (MVAr)
- Grand Total Gross Generator - Real Power (MW)
- Grand Total Gross Generator - Reactive Power (MVAr)
- Grand Total Net Generator - Real Power (MW)
- Grand Total Net Generator - Reactive Power (MVAr)

An example of the Batch Unit Data file is shown below in the following Figure 17.

Figure 17: Example of a Batch Unit Data file.

Group Name	Payment PTID	Compensation MVAR	Group Type	Org Name	Test Year	Test Type	Test Date/Time	Member Name	PTID	Gross Generator - Real Power (MW)	Gross Generator - Reactive Power (MVAr)	Net Generator - Real Power (MW)	Net Generator - Reactive Power (MVAr)	Hydrogen Pressure (PSIA)	Generator Terminal Voltage - Gen Terminal	Generator Terminal Voltage - Auxiliary Bus	Tap Positions - GSU	Tap Positions - Auxiliary Bus	In-plant Aux Station Service Load - Real Power (MW)	In-plant Aux Station Service Load - Reactive	Grand Total Gross Generator - Real Power (MW)	Grand Total Gross Generator - Reactive Power	Gran Net Gene Real (MW)
Group Name 4	<Payment PTID#>	20	All Other	Organization Name	2016	In-Period Lagging Test	05/18/2016 00:00:00 ED	Astoria 4	<PTID>	345	20			18	22	22	6	6	4	2	345	20	
Group Name 4	<Payment PTID#>	20	All Other	Organization Name	2016	In-Period Leading Test	05/14/2016 00:00:00 ED	Astoria 4	<PTID>	323	0	322	0	8	11	11	9	9	4	3	323	0	
Group Name 2	<Payment PTID#>	31	All Other	Organization Name	2016	In-Period Lagging Test	05/12/2016 00:00:00 ED	Astoria 2	<PTID>	33	31	31	30	8	4	5	6	5	4	3	33	31	
Group Name 2	<Payment PTID#>	31	All Other	Organization Name	2016	In-Period Leading Test	05/14/2016 00:00:00 ED	Astoria 2	<PTID>	155	0	144	0	18	13	13	5	5	4	2	155	0	