

Outage Scheduler (OMS) System Generator Owner (GO) Edition

Instruction by: Gina E. Craan, Manager, Market Training, NYISO

Development by: Kelly Stegmann, Senior Market Trainer, Market Training, NYISO

Pre-Market Trials Training

July 5-7, 2022

Remote Learning

Presentation Outline

- **OMS Implementation Date and System Benefits**
- **OMS User Requirements**
- **OMS Application Walk-Through**
- **Next Steps**
- **Additional Resources**

OMS Implementation Date & System Benefits

Outage Scheduler (OMS) System Implementation

- Targeted Implementation set for October 2022
- Benefits of OMS
 - ✓ User-Friendly
 - ✓ Secure
 - ✓ Web-based
 - ✓ Ease of application modifications/upgrades

OMS User Requirements

OMS User Requirements

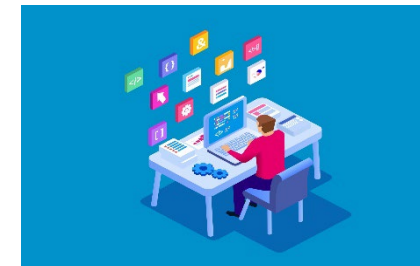
- Hardware Specifications



	Recommended	Optimal
Graphics Memory (GPU)	512 MB of GDDR4 or higher	2GB GDDR5 or higher
Processor	(4 MB cache, 4 cores, 4 threads) or higher	(6 MB cache, 4 cores, 8 threads) or higher
RAM	8 GB	16 GB
HDD	SSD	M.2 SSD

OMS User Requirements

- Software Specifications



Product	Required
Operating System	64-bit
Browser	Internet Explorer 11 ¹ (Run in 64-Bit) Google Chrome 96 or higher ² Microsoft Edge 96 or higher ² Mozilla Firefox - x64 - 96 or higher ²
Browser Add-ons	Microsoft Silverlight 5.1.50907.0 ³
CSV	Spreadsheet application
PDF	PDF Reader

OMS User Requirements

- Network Specifications

	Recommended	Optimal
Network Connectivity	T1 internet connection	OATInet or other private network connection



OMS User Requirements

■ Digital Certificate

- Valid NAESB Digital Certificate Required
 - Installed on respective computer
 - Specific to respective browser used to access OMS

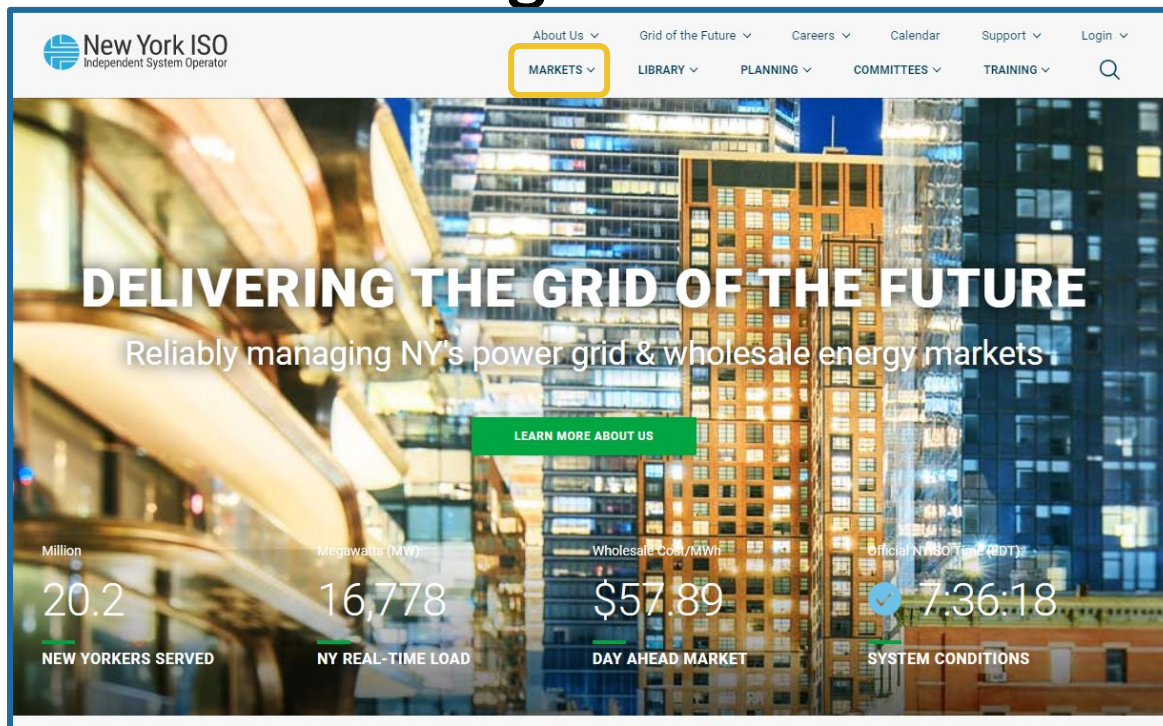
■ MIS Privileges

- 1st OMS Privileges must be set-up for MIS account at *Org Level*
 - Assigned by NYISO
- 2nd OMS Privileges must be assigned to MIS account at *User Level*
 - Assigned by organization's MIS Administrator

OMS Application Walk-Through

Accessing OMS

- NYISO Market Access Login

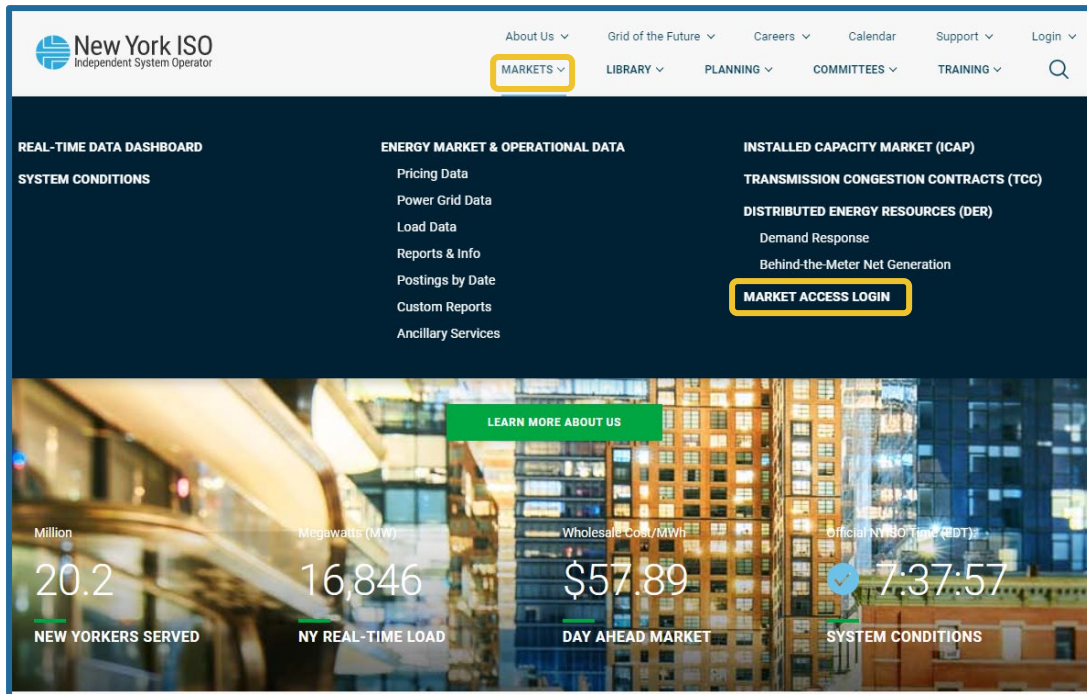


The screenshot shows the New York ISO website homepage. The header includes the New York ISO logo and a navigation menu with items: About Us, Grid of the Future, Careers, Calendar, Support, Login, MARKETS (highlighted with a yellow box), LIBRARY, PLANNING, COMMITTEES, and TRAINING. A search icon is also present. The main content area features a large image of a city at night with the text "DELIVERING THE GRID OF THE FUTURE" and "Reliably managing NY's power grid & wholesale energy markets". A green button labeled "LEARN MORE ABOUT US" is centered below the text. At the bottom, four key metrics are displayed: 20.2 Million NEW YORKERS SERVED, 16,778 Megawatts (MW) NY REAL-TIME LOAD, \$57.89 Wholesale Cost/MWh DAY AHEAD MARKET, and 7:36:18 Official NYISO Time (EDT) SYSTEM CONDITIONS.

Metric	Value
Million NEW YORKERS SERVED	20.2
Megawatts (MW) NY REAL-TIME LOAD	16,778
Wholesale Cost/MWh DAY AHEAD MARKET	\$57.89
Official NYISO Time (EDT) SYSTEM CONDITIONS	7:36:18

Accessing OMS

■ NYISO Market Access Login



The screenshot shows the NYISO website interface. The top navigation bar includes the NYISO logo and several menu items: About Us, Grid of the Future, Careers, Calendar, Support, and Login. A yellow box highlights the 'MARKETS' dropdown menu. Below the navigation bar, the main content area is divided into three columns of links. The right column contains a yellow box around the 'MARKET ACCESS LOGIN' link. Below the navigation bar, there is a large banner image of a city at night with a green 'LEARN MORE ABOUT US' button. Below the banner, there are four data cards: 'NEW YORKERS SERVED' (20.2 Million), 'NY REAL-TIME LOAD' (16,846 Megawatts (MW)), 'DAY AHEAD MARKET' (\$57.89 Wholesale Cost/MWh), and 'SYSTEM CONDITIONS' (7:37:57 Official NYISO Time (EDT)).

New York ISO
Independent System Operator

About Us ▾ Grid of the Future ▾ Careers ▾ Calendar Support ▾ Login ▾
MARKETS ▾ LIBRARY ▾ PLANNING ▾ COMMITTEES ▾ TRAINING ▾ 🔍

REAL-TIME DATA DASHBOARD
SYSTEM CONDITIONS

ENERGY MARKET & OPERATIONAL DATA
Pricing Data
Power Grid Data
Load Data
Reports & Info
Postings by Date
Custom Reports
Ancillary Services

INSTALLED CAPACITY MARKET (ICAP)
TRANSMISSION CONGESTION CONTRACTS (TCC)
DISTRIBUTED ENERGY RESOURCES (DER)
Demand Response
Behind-the-Meter Net Generation
MARKET ACCESS LOGIN

LEARN MORE ABOUT US

Million
20.2
NEW YORKERS SERVED

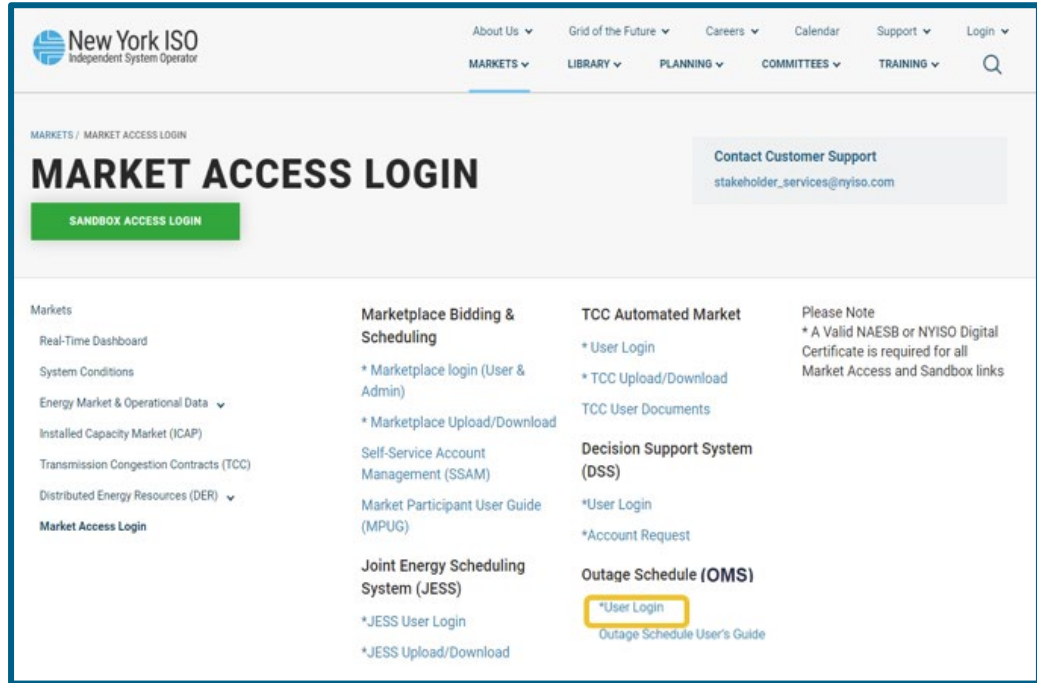
Megawatts (MW)
16,846
NY REAL-TIME LOAD

Wholesale Cost/MWh
\$57.89
DAY AHEAD MARKET

Official NYISO Time (EDT)
7:37:57
SYSTEM CONDITIONS

Accessing OMS

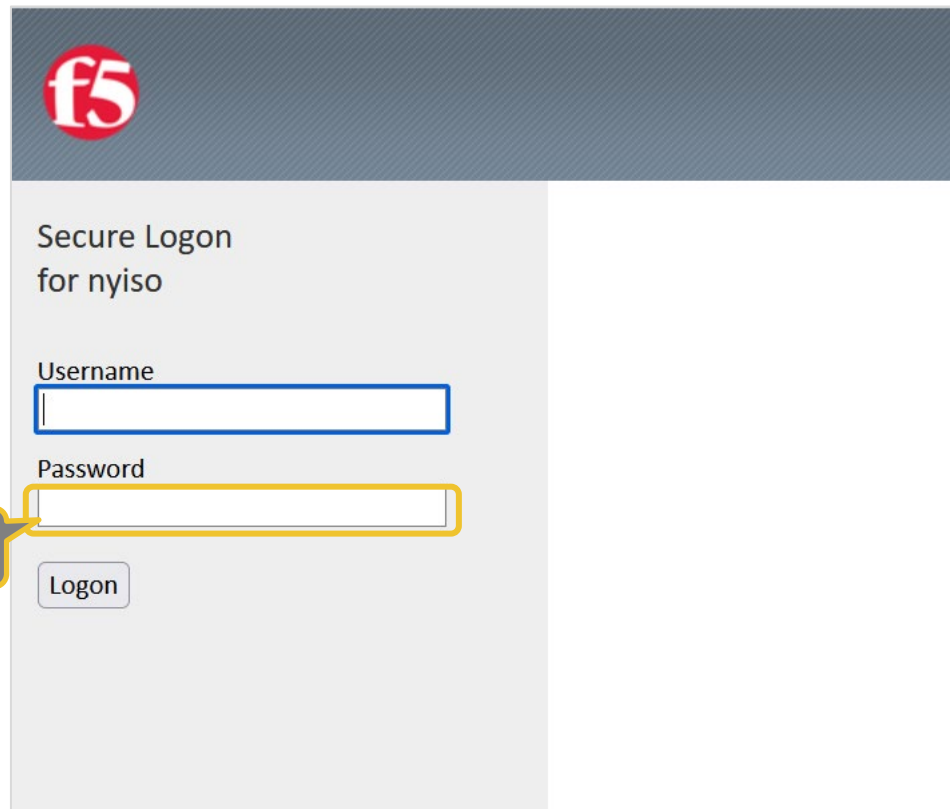
■ NYISO Market Access Login



The screenshot shows the NYISO website's Market Access Login page. The header includes the NYISO logo and navigation links: About Us, Grid of the Future, Careers, Calendar, Support, Login, MARKETS, LIBRARY, PLANNING, COMMITTEES, TRAINING, and a search icon. The main heading is "MARKET ACCESS LOGIN" with a "SANDBOX ACCESS LOGIN" button below it. A "Contact Customer Support" box with the email stakeholder_services@nyiso.com is on the right. The main content area is divided into four columns: Markets (with links like Real-Time Dashboard, System Conditions, etc.), Marketplace Bidding & Scheduling (with links like Marketplace login, etc.), TCC Automated Market (with links like User Login, etc.), and Decision Support System (DSS) (with links like User Login, etc.). The "Outage Schedule (OMS)" section is highlighted with a yellow box around the "*User Login" link. A "Please Note" section on the right states: "* A Valid NAESB or NYISO Digital Certificate is required for all Market Access and Sandbox links".

Accessing OMS

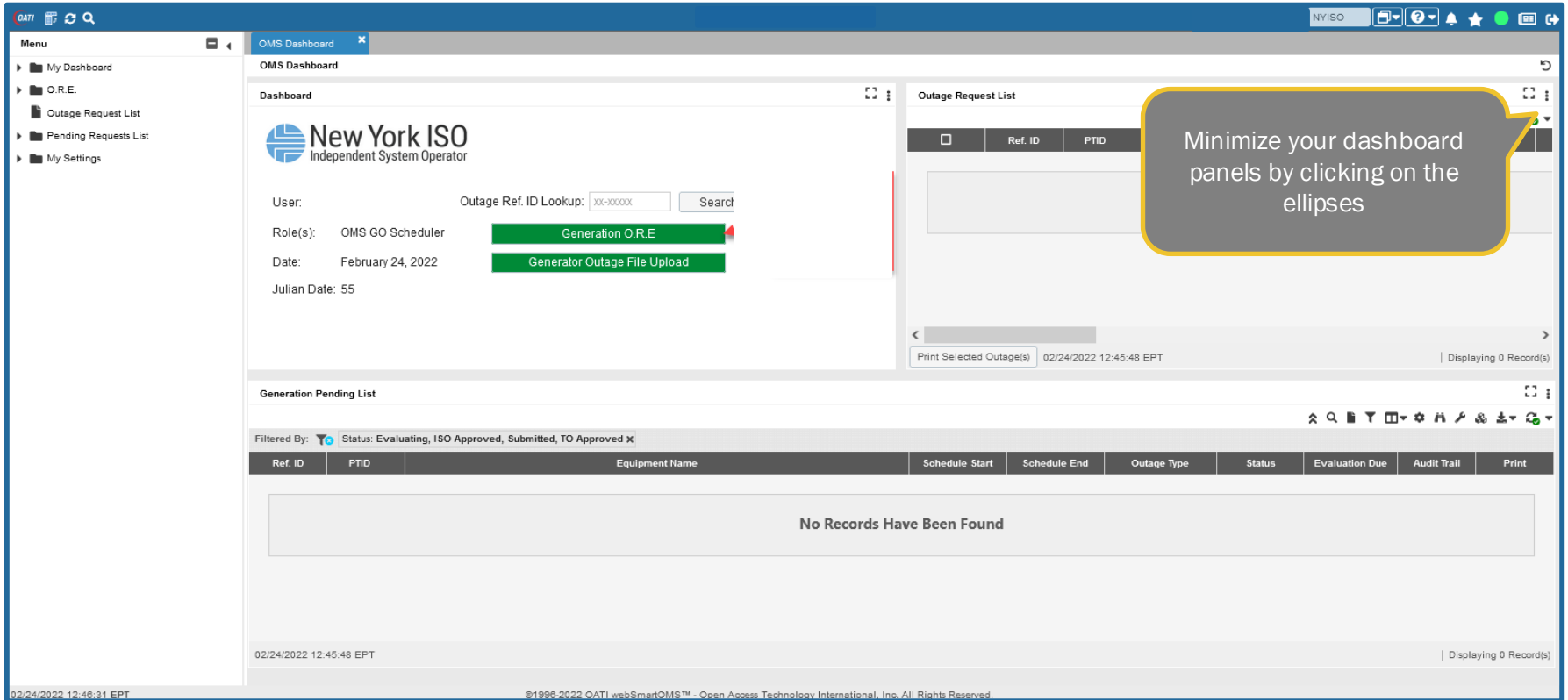
- OMS User Login



The screenshot shows the F5 OMS login interface. At the top left is the F5 logo. Below it, the text reads "Secure Logon for nyiso". There are two input fields: "Username" and "Password". The "Password" field is highlighted with a yellow border. Below the fields is a "Logon" button.

Password is case sensitive

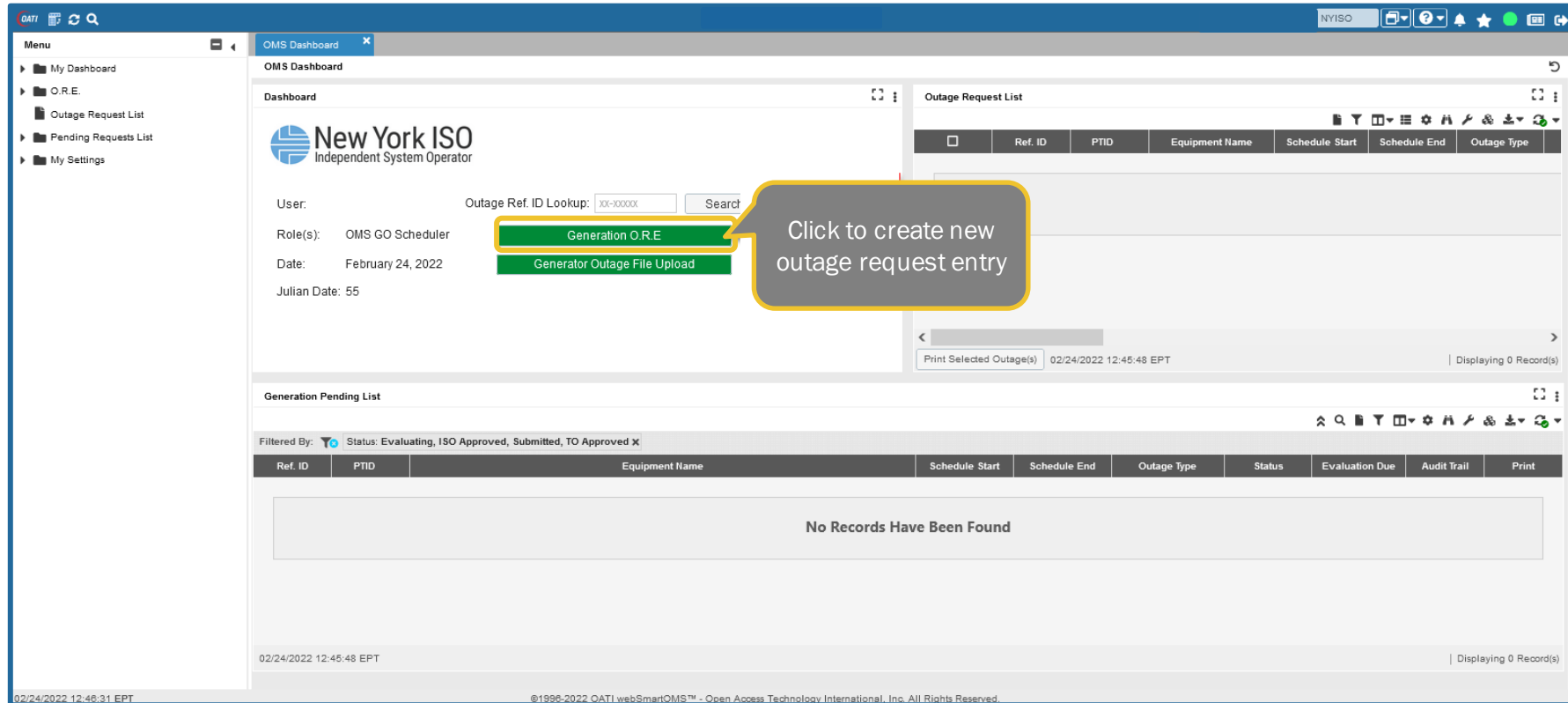
OMS Dashboard



The screenshot shows the OMS Dashboard interface. On the right side, there is a panel titled "Outage Request List". A callout box with a yellow border points to the minimize button (represented by two vertical ellipses) in the top right corner of this panel. The text inside the callout box reads: "Minimize your dashboard panels by clicking on the ellipses".

The dashboard includes a menu on the left with items like "My Dashboard", "O.R.E.", "Outage Request List", "Pending Requests List", and "My Settings". The main content area features the "New York ISO Independent System Operator" logo, user information (User: OMS GO Scheduler, Role(s): OMS GO Scheduler), and search filters (Outage Ref. ID Lookup: xxx-xxxxx). Below this is a "Generation Pending List" section with a table header and a "No Records Have Been Found" message.

OMS Dashboard



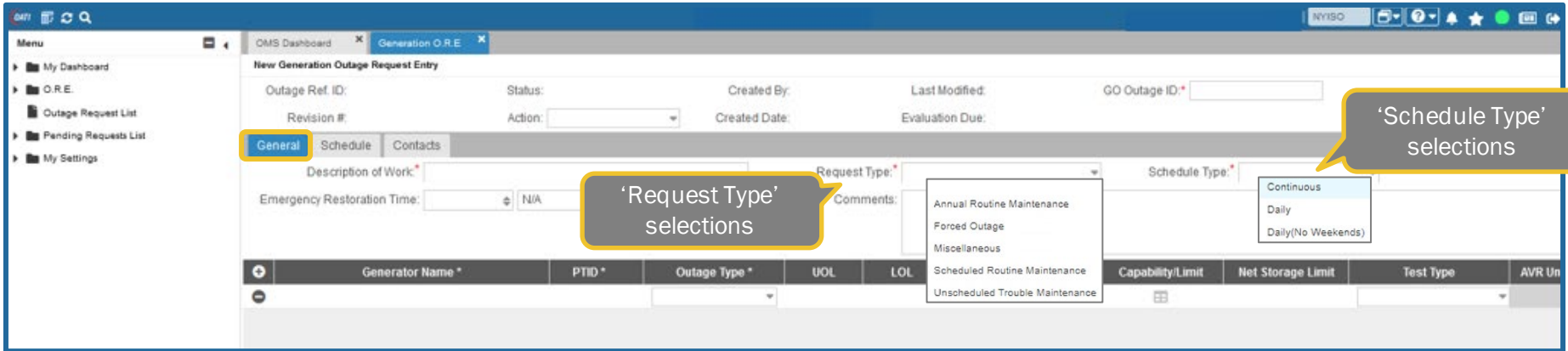
The screenshot displays the OMS Dashboard for the New York ISO. The interface includes a left-hand menu with options like 'My Dashboard', 'O.R.E.', 'Outage Request List', 'Pending Requests List', and 'My Settings'. The main content area is divided into several sections:

- Dashboard:** Displays the New York ISO logo and user information:
 - User: [Redacted]
 - Role(s): OMS GO Scheduler
 - Date: February 24, 2022
 - Julian Date: 55
- Outage Ref. ID Lookup:** A search bar with a 'Search' button and a dropdown menu showing 'Generation O.R.E.' (highlighted in green) and 'Generator Outage File Upload'.
- Outage Request List:** A table with columns: Ref. ID, PTID, Equipment Name, Schedule Start, Schedule End, and Outage Type. It shows 'Displaying 0 Record(s)'. Below the table is a 'Print Selected Outage(s)' button and a timestamp '02/24/2022 12:45:48 EPT'.
- Generation Pending List:** A section with a filter 'Status: Evaluating, ISO Approved, Submitted, TO Approved X'. Below it is a table with columns: Ref. ID, PTID, Equipment Name, Schedule Start, Schedule End, Outage Type, Status, Evaluation Due, Audit Trail, and Print. The table content is empty, displaying 'No Records Have Been Found'.

A callout bubble with a yellow border and a speech bubble tail points to the 'Generation O.R.E.' button, containing the text: 'Click to create new outage request entry'.

GO Outage Request Entry Form

■ General



New Generation Outage Request Entry

Outage Ref. ID: _____ Status: _____ Created By: _____ Last Modified: _____ GO Outage ID: _____

Revision #: _____ Action: _____ Created Date: _____ Evaluation Due: _____

General | Schedule | Contacts

Description of Work: _____ Request Type: _____ Schedule Type: _____

Emergency Restoration Time: _____ N/A

Comments: _____

Request Type dropdown options:

- Annual Routine Maintenance
- Forced Outage
- Miscellaneous
- Scheduled Routine Maintenance
- Unscheduled Trouble Maintenance

Schedule Type dropdown options:

- Continuous
- Daily
- Daily(No Weekends)

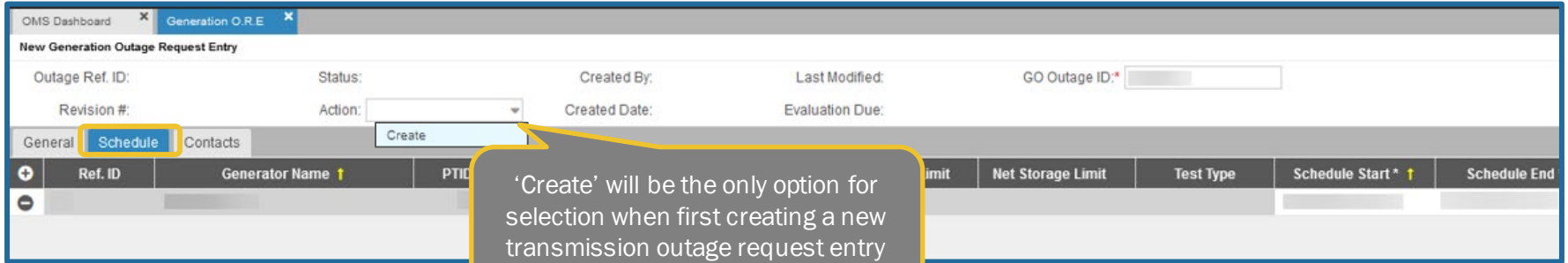
Generator Name *	PTID *	Outage Type *	UOL	LOL	Capability/Limit	Net Storage Limit	Test Type	AVR Un

'Schedule Type' selections

'Request Type' selections

GO Outage Request Entry Form

- Schedule



OMS Dashboard x Generation O.R.E x

New Generation Outage Request Entry

Outage Ref. ID: Status: Created By: Last Modified: GO Outage ID:*

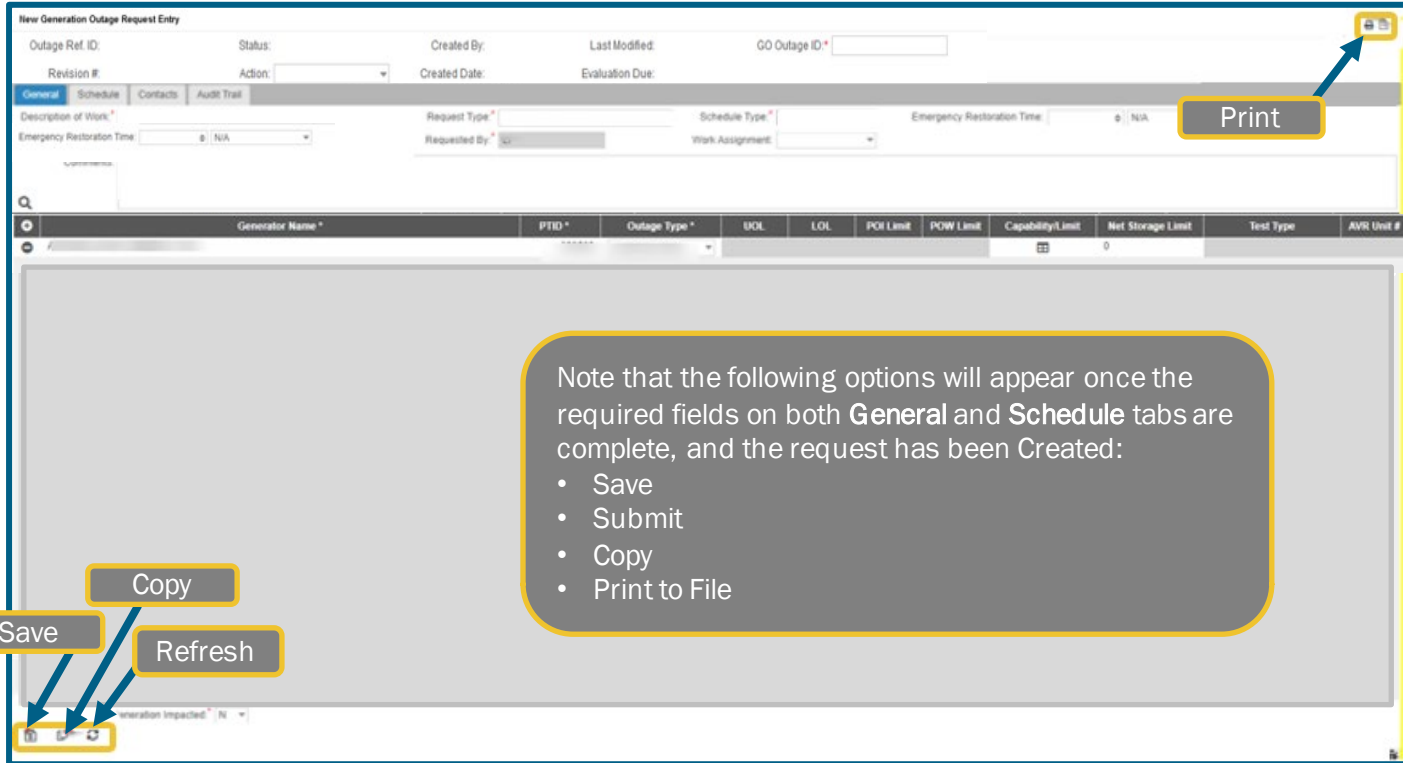
Revision #: Action: Created Date: Evaluation Due:

General **Schedule** Contacts Create

Ref. ID	Generator Name ↑	PTID	Limit	Net Storage Limit	Test Type	Schedule Start * ↑	Schedule End

'Create' will be the only option for selection when first creating a new transmission outage request entry

GO Outage Request Entry Form



The screenshot shows the 'New Generation Outage Request Entry' form. At the top right, there is a 'Print' button. At the bottom left, there is a toolbar containing 'Save', 'Copy', and 'Refresh' buttons. A central text box provides instructions on when these buttons become available.

Print

Save

Copy

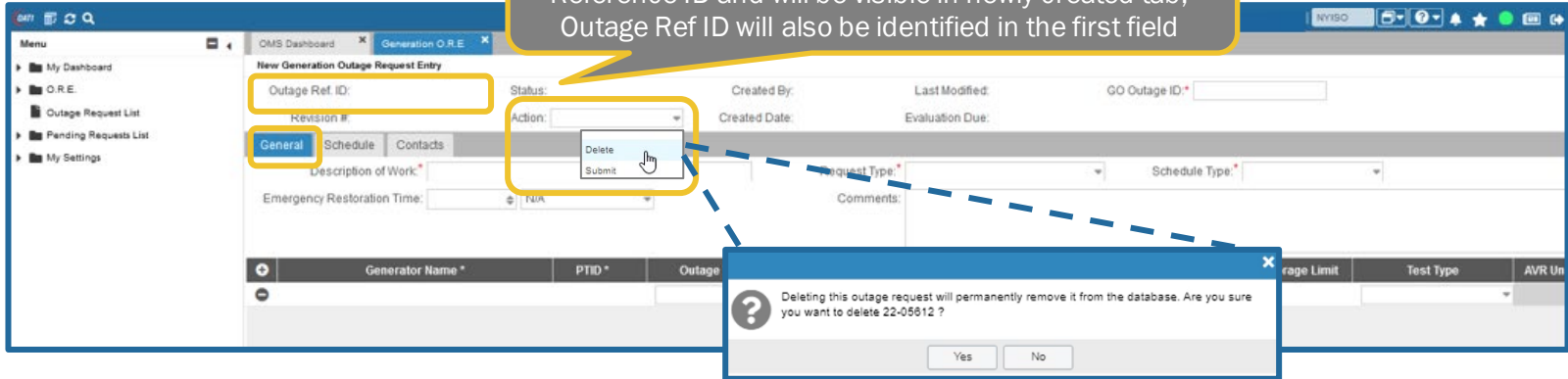
Refresh

Note that the following options will appear once the required fields on both **General** and **Schedule** tabs are complete, and the request has been Created:

- Save
- Submit
- Copy
- Print to File

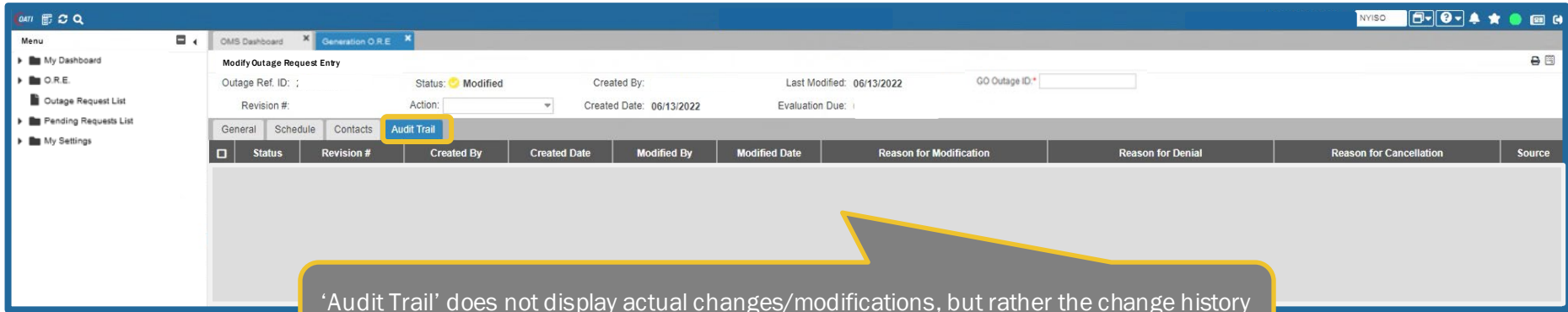
Submitting a Request

Outage request entry will be assigned an Outage Reference ID and will be visible in newly created tab; Outage Ref ID will also be identified in the first field



The screenshot shows the 'New Generation Outage Request Entry' form in the OMS Dashboard. The form includes fields for 'Outage Ref. ID', 'Revision #', 'Status', 'Created By', 'Last Modified', 'GO Outage ID', 'Created Date', 'Evaluation Due', 'Description of Work', 'Emergency Restoration Time', 'Request Type', and 'Schedule Type'. A 'General' tab is selected, and an 'Action' dropdown menu is open, showing 'Delete' and 'Submit' options. A blue dashed line connects the 'Delete' option to a confirmation dialog box that reads: 'Deleting this outage request will permanently remove it from the database. Are you sure you want to delete 22-05612?' with 'Yes' and 'No' buttons. A yellow callout box highlights the 'Outage Ref. ID' field and the 'Action' dropdown menu.

Audit Trail

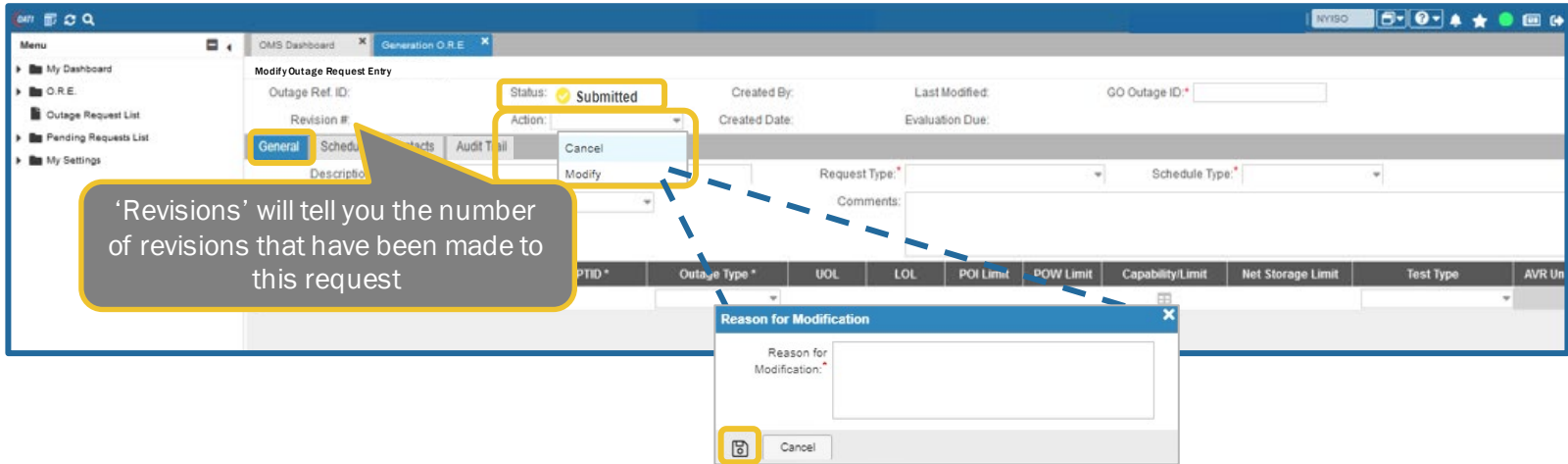


The screenshot shows the 'Modify Outage Request Entry' page in the OMS Dashboard. The 'Audit Trail' tab is selected in the navigation bar. The table below the navigation bar is empty, indicating that the audit trail data is not yet visible or filtered.

Status	Revision #	Created By	Created Date	Modified By	Modified Date	Reason for Modification	Reason for Denial	Reason for Cancellation	Source

'Audit Trail' does not display actual changes/modifications, but rather the change history across the various fields for this outage request

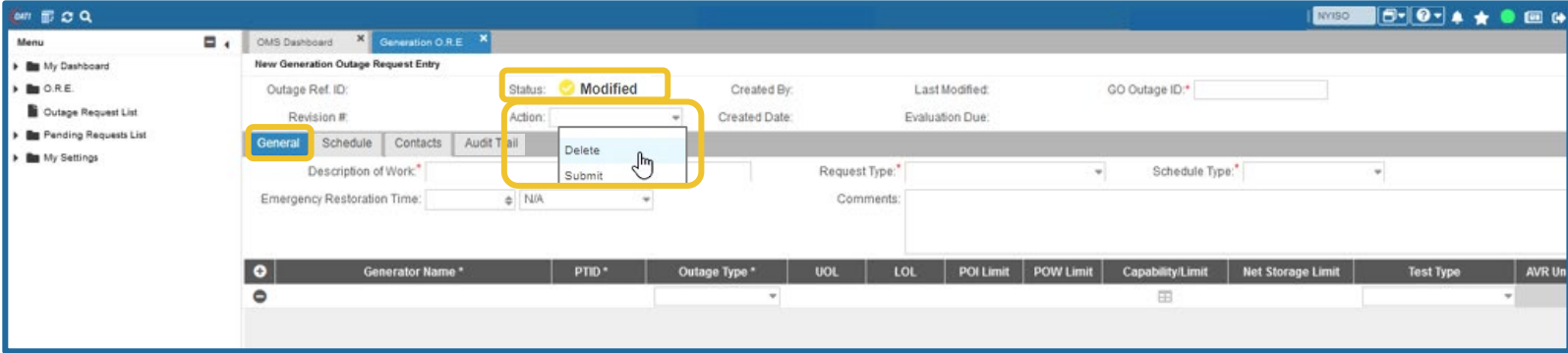
Modifying Request



The screenshot displays the 'Modify Outage Request Entry' interface. Key elements include:

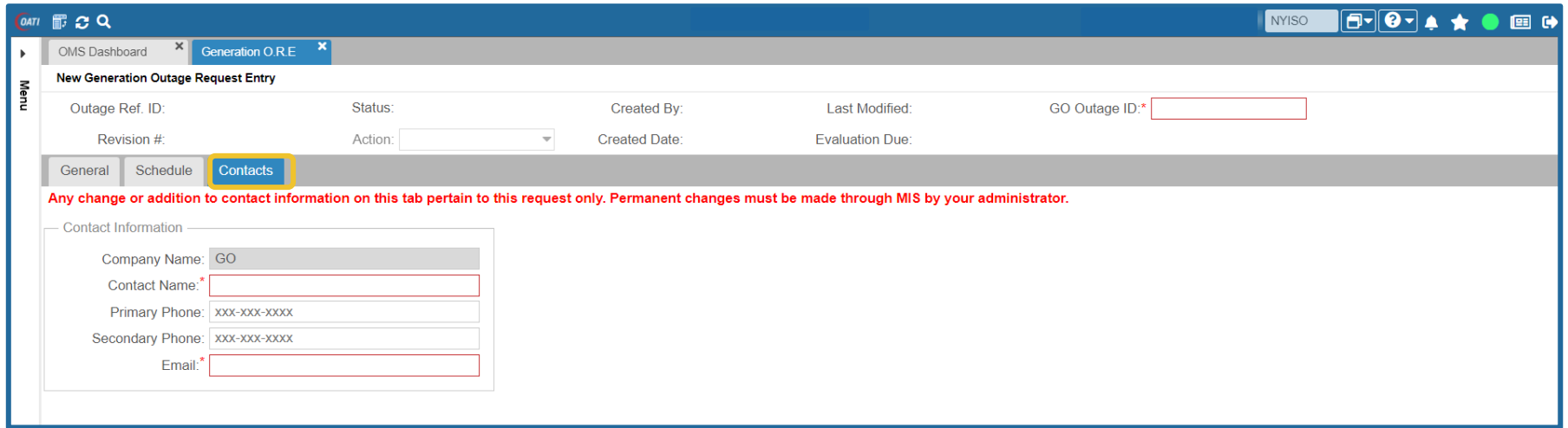
- Status:** Submitted (indicated by a yellow checkmark icon).
- Action:** A dropdown menu with 'Cancel' and 'Modify' options.
- Revisions:** A field labeled 'Revisions' with a callout box stating: "Revisions' will tell you the number of revisions that have been made to this request".
- Reason for Modification:** A dialog box with a text area for the reason and a 'Cancel' button.
- Technical Parameters:** A row of fields including PTID, Outage Type, UOL, LOL, POI Limit, POW Limit, Capability Limit, Net Storage Limit, Test Type, and AVR Un.

Submitting Request



GO Outage Request Entry Form

■ Contacts



The screenshot shows a web browser window with the URL 'NYISO'. The page title is 'New Generation Outage Request Entry'. The 'Contacts' tab is selected and highlighted with a yellow box. The form contains the following fields:

- Outage Ref. ID: [Text Field]
- Status: [Text Field]
- Created By: [Text Field]
- Last Modified: [Text Field]
- GO Outage ID:* [Text Field]
- Revision #: [Text Field]
- Action: [Dropdown Menu]
- Created Date: [Text Field]
- Evaluation Due: [Text Field]

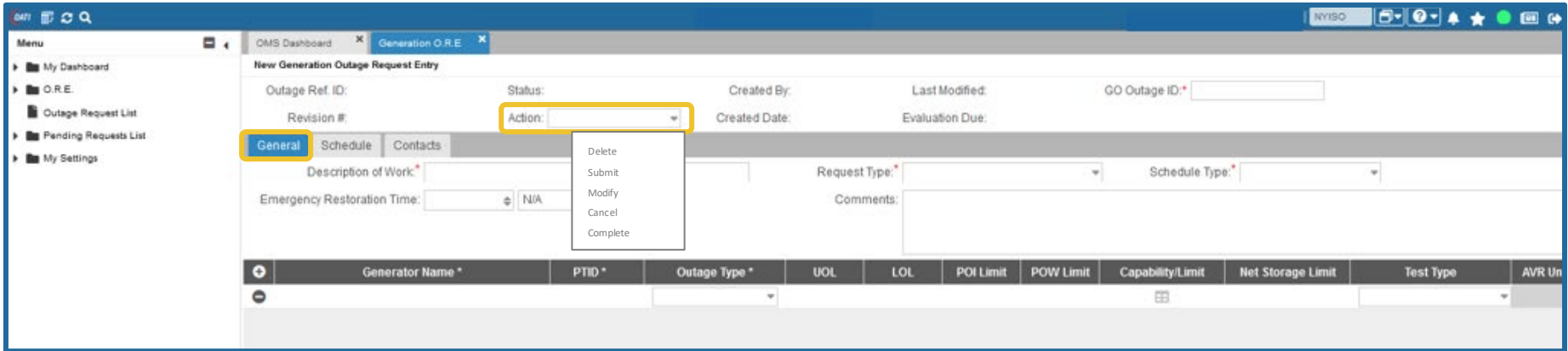
Below the tabs, there is a red warning message: "Any change or addition to contact information on this tab pertain to this request only. Permanent changes must be made through MIS by your administrator."

The 'Contact Information' section includes the following fields:

- Company Name: GO [Text Field]
- Contact Name:* [Text Field]
- Primary Phone: xxx-xxx-xxxx [Text Field]
- Secondary Phone: xxx-xxx-xxxx [Text Field]
- Email:* [Text Field]

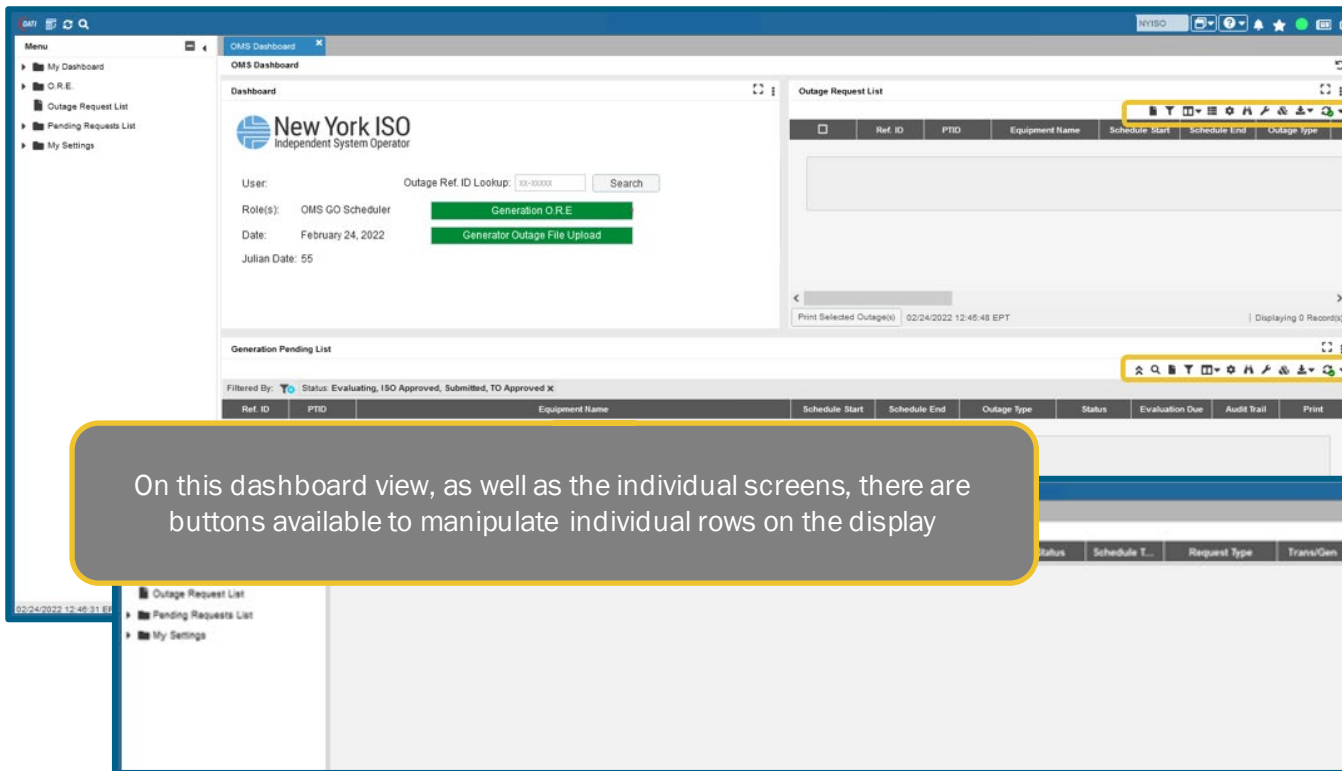
GO Outage Request Entry Form

- General



The screenshot displays the 'New Generation Outage Request Entry' form. The 'Action' dropdown menu is open, showing the following options: Delete, Submit, Modify, Cancel, and Complete. The 'General' tab is selected in the left sidebar. The form includes fields for Outage Ref. ID, Status, Created By, Last Modified, GO Outage ID, Revision #, Created Date, Evaluation Due, Description of Work, Request Type, Schedule Type, Emergency Restoration Time, and Comments. A table at the bottom lists various parameters: Generator Name, PTID, Outage Type, UOL, LOL, POI Limit, POW Limit, Capability/Limit, Net Storage Limit, Test Type, and AVR Un.

OMS Dashboard



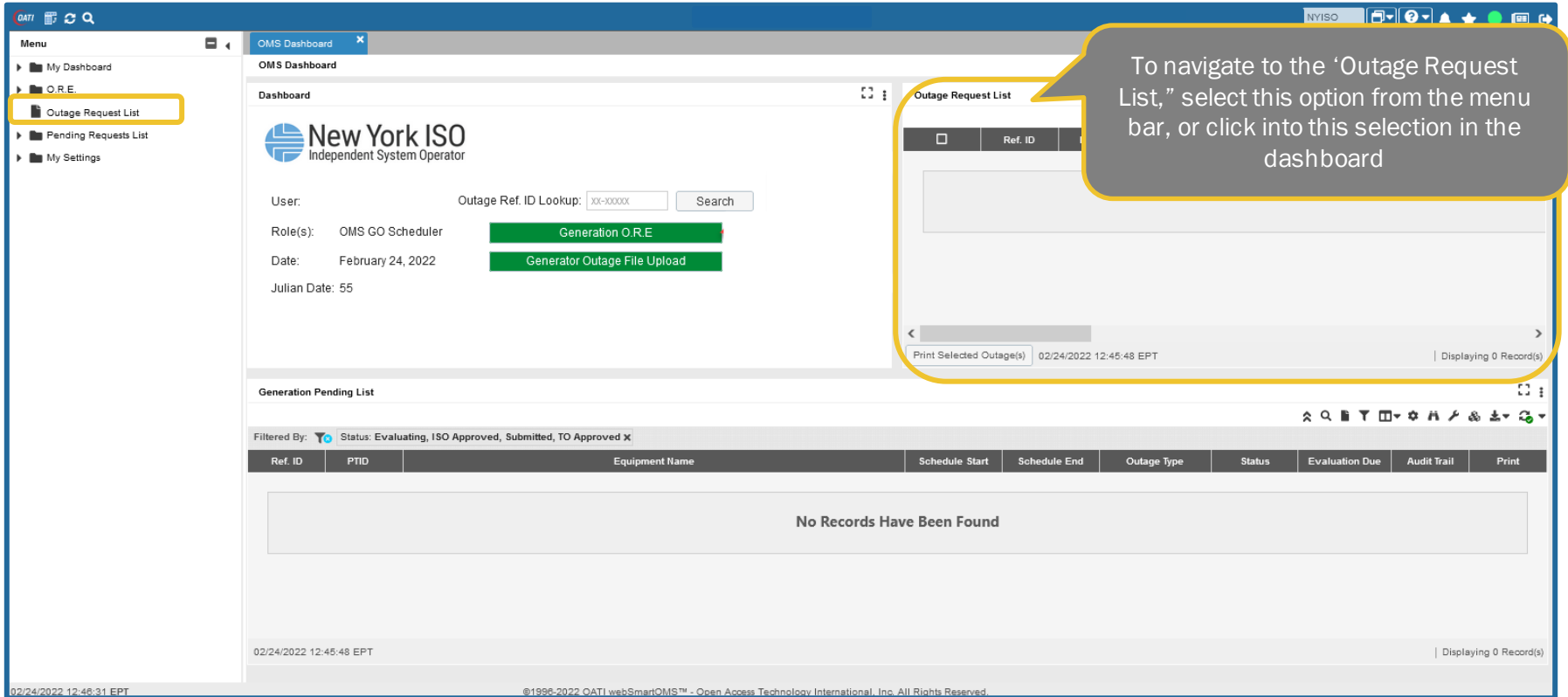
The screenshot displays the OMS Dashboard interface. On the left is a navigation menu with items like 'My Dashboard', 'O.R.E.', 'Outage Request List', 'Pending Requests List', and 'My Settings'. The main content area is divided into several sections:

- User Profile:** Shows 'User: OMS GO Scheduler', 'Role(s): OMS GO Scheduler', 'Date: February 24, 2022', and 'Julian Date: 55'. There are two green buttons: 'Generation O.R.E.' and 'Generator Outage File Upload'.
- Outage Request List:** A table with columns: Ref. ID, PID, Equipment Name, Schedule Start, Schedule End, and Outage type. A toolbar above the table contains icons for search, filter, refresh, and other actions.
- Generation Pending List:** A table with columns: Ref. ID, PID, Equipment Name, Schedule Start, Schedule End, Outage Type, Status, Evaluation Due, Audit trail, and Print. A filter bar above the table shows 'Filtered By: Status: Evaluating, ISO Approved, Submitted, TO Approved x'.

A yellow callout box highlights the toolbars above the 'Outage Request List' and 'Generation Pending List' tables, indicating that these buttons are used to manipulate individual rows on the display.

On this dashboard view, as well as the individual screens, there are buttons available to manipulate individual rows on the display

OMS Dashboard



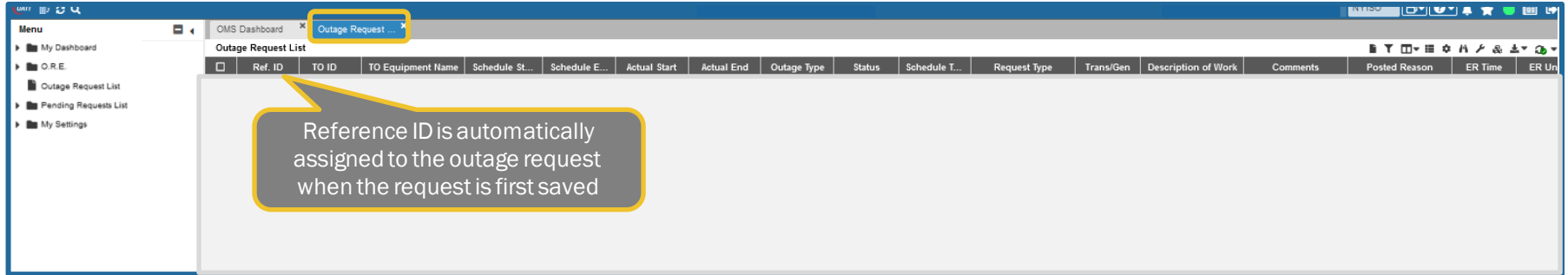
The screenshot displays the OMS Dashboard for the New York ISO. The interface includes a left-hand menu with the following items: My Dashboard, O.R.E., **Outage Request List** (highlighted with a yellow box), Pending Requests List, and My Settings. The main dashboard area features the New York ISO logo and the text "Independent System Operator". Below this, there are fields for "User:" and "Outage Ref. ID Lookup:" with a "Search" button. Two green buttons are visible: "Generation O.R.E." and "Generator Outage File Upload". The "Date:" is set to "February 24, 2022" and "Julian Date:" is "55".

A callout box with a yellow border and a grey background points to the "Outage Request List" menu item and the corresponding dashboard section. The text inside the callout reads: "To navigate to the 'Outage Request List,' select this option from the menu bar, or click into this selection in the dashboard".

The "Outage Request List" section shows a table with the following columns: Ref. ID, Equipment Name, Schedule Start, Schedule End, Outage Type, Status, Evaluation Due, Audit Trail, and Print. The table is currently empty, displaying "No Records Have Been Found". The filter criteria are "Status: Evaluating, ISO Approved, Submitted, TO Approved X". The page footer shows the date "02/24/2022 12:46:31 EPT" and the copyright notice "©1996-2022 OATI webSmartOMS™ - Open Access Technology International, Inc. All Rights Reserved."

To navigate to the 'Outage Request List,' select this option from the menu bar, or click into this selection in the dashboard

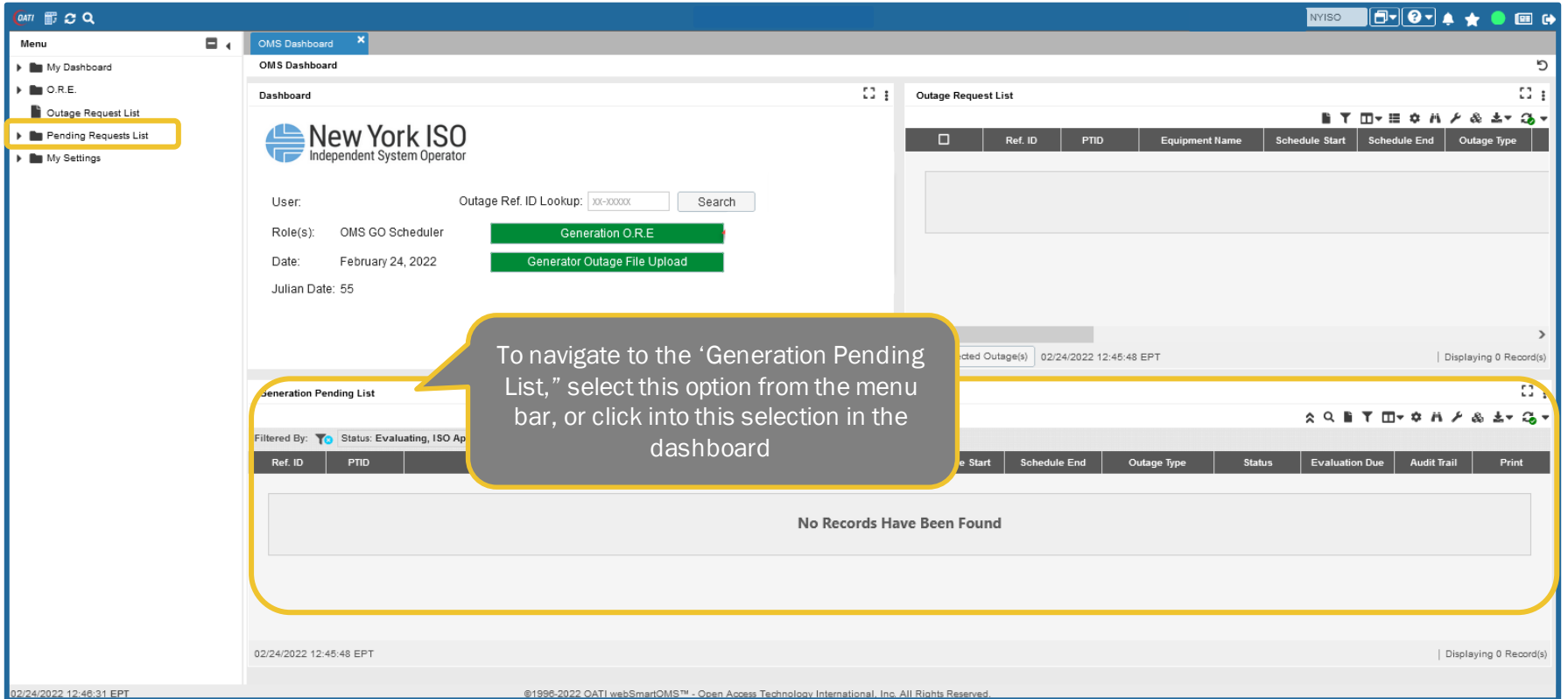
GO Outage Request List



Reference ID is automatically assigned to the outage request when the request is first saved

Ref. ID	TO ID	TO Equipment Name	Schedule St...	Schedule E...	Actual Start	Actual End	Outage Type	Status	Schedule T...	Request Type	Trans/Gen	Description of Work	Comments	Posted Reason	ER Time	ER Un
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OMS Dashboard



The screenshot displays the OMS Dashboard interface. On the left, a 'Menu' sidebar contains several items, with 'Pending Requests List' highlighted by a yellow box. The main dashboard area features the New York ISO logo and user information: 'User: OMS GO Scheduler', 'Role(s): OMS GO Scheduler', 'Date: February 24, 2022', and 'Julian Date: 55'. There are two green buttons: 'Generation O.R.E.' and 'Generator Outage File Upload'. A search bar for 'Outage Ref. ID Lookup' is also present. The 'Outage Request List' table is currently empty. Below, the 'Generation Pending List' table is also empty, with a message 'No Records Have Been Found'. A yellow callout box points to the 'Pending Requests List' menu item and the 'Generation Pending List' table, containing the text: 'To navigate to the 'Generation Pending List,' select this option from the menu bar, or click into this selection in the dashboard'.

Menu

- My Dashboard
- O.R.E.
- Outage Request List
- Pending Requests List**
- My Settings

Dashboard

New York ISO
Independent System Operator

User: OMS GO Scheduler
Role(s): OMS GO Scheduler
Date: February 24, 2022
Julian Date: 55

Outage Ref. ID Lookup:

Outage Request List

Ref. ID	PTID	Equipment Name	Schedule Start	Schedule End	Outage Type
No Records Found					

02/24/2022 12:45:48 EPT | Displaying 0 Record(s)

Generation Pending List

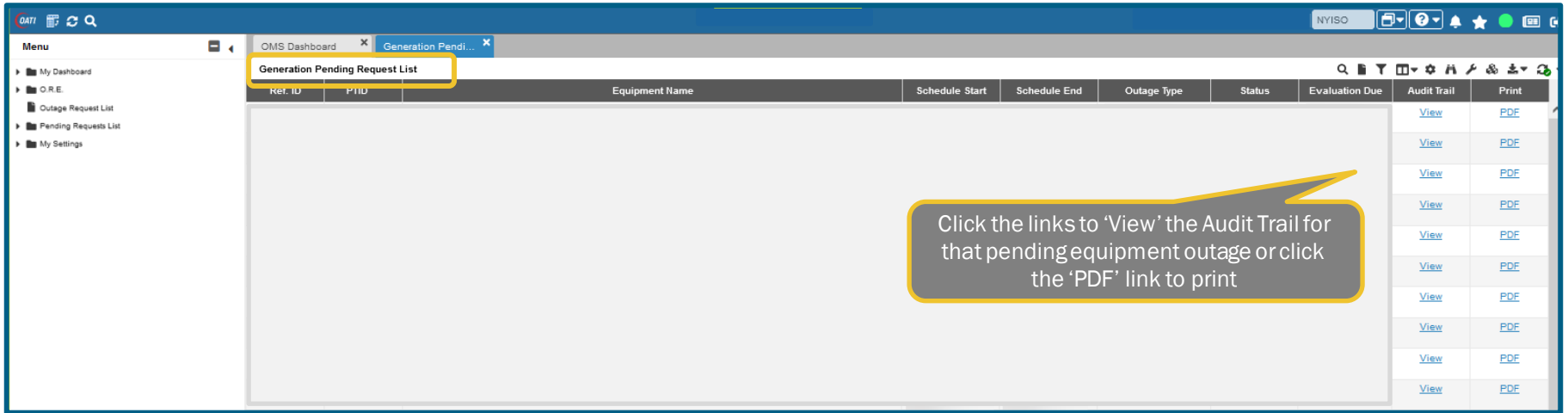
Filtered By: Status: Evaluating, ISO Ap

Ref. ID	PTID	Schedule Start	Schedule End	Outage Type	Status	Evaluation Due	Audit Trail	Print
No Records Have Been Found								

02/24/2022 12:45:48 EPT | Displaying 0 Record(s)

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GO Outage Pending Request List



The screenshot shows the 'Generation Pending Request List' in the OMS Dashboard. The table contains the following columns: Ref. ID, PID, Equipment Name, Schedule Start, Schedule End, Outage Type, Status, Evaluation Due, Audit Trail, and Print. The Audit Trail column contains 'View' links, and the Print column contains 'PDF' links. A yellow callout box highlights these links with the text: 'Click the links to 'View' the Audit Trail for that pending equipment outage or click the 'PDF' link to print'.

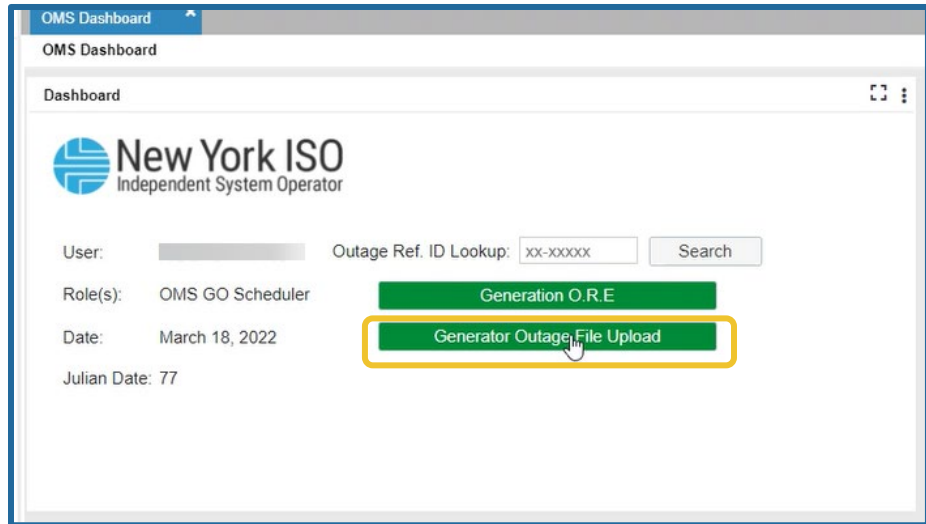
Ref. ID	PID	Equipment Name	Schedule Start	Schedule End	Outage Type	Status	Evaluation Due	Audit Trail	Print
								View	PDF
								View	PDF
								View	PDF
								View	PDF
								View	PDF
								View	PDF
								View	PDF
								View	PDF
								View	PDF
								View	PDF

Outage Request Status Conditions

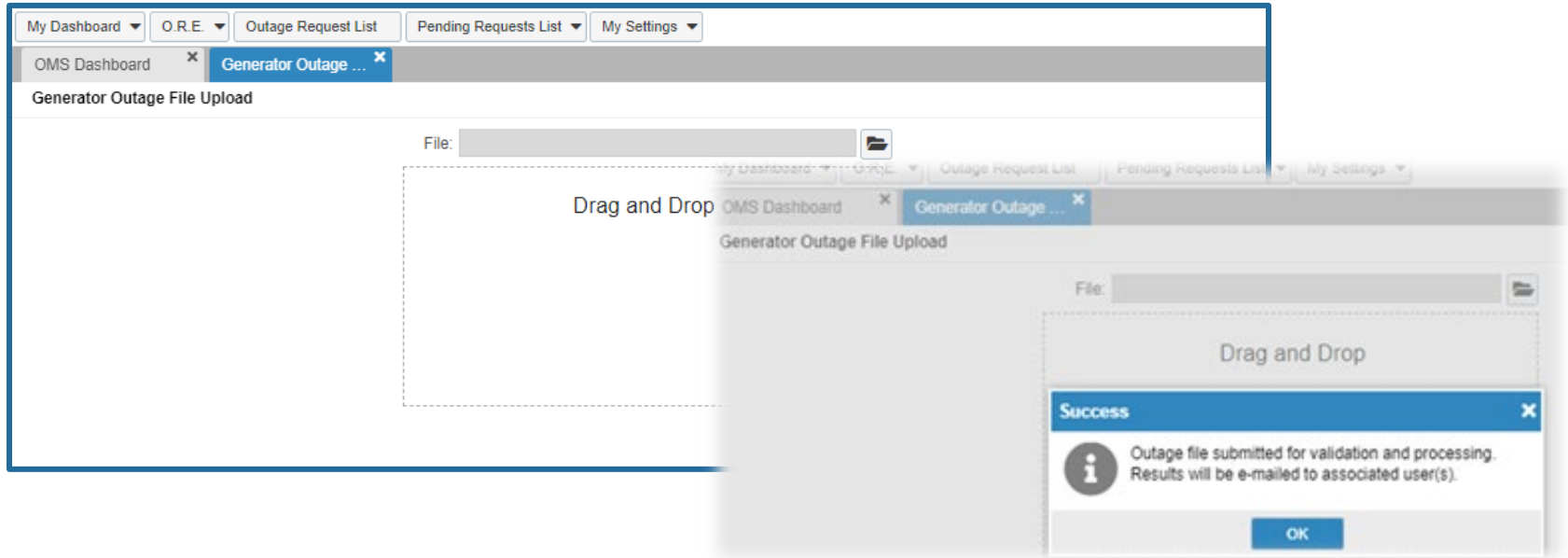
Request State	Request State Defined
Created	Request information as entered has been saved and stored in the Outage Scheduler (OMS) database(s). The outage request has not been sent to the NYISO and TO evaluators.
Submitted	The request has been submitted to NYISO/TO for evaluation, but the evaluators (NYISO/TO) have not yet started the evaluation process.
Evaluating	The NYISO/TO evaluators have begun evaluating the outage request.
TO Approved	The TO evaluators have reviewed the outage request and agreed that the request can occur on the date/time specified for the outage request. In the case of a generation request, the TO is the local TO where the generator is located. In the case of a transmission request, the TO would be a switching authority.
NYISO Approved	The NYISO evaluators have reviewed the outage request and agreed that the request can occur on the date/time specified for the outage request.
Approved	Both the NYISO and the TO evaluators have reviewed the outage request and have agreed that the request can occur on the date/time specified for the outage request.
Denied	The NYISO/TO evaluators have reviewed the outage request and have determined that it cannot reliably occur. The evaluator will provide a reason for the denial and alternate dates when the outage can be accommodated.
Modified	A request that was previously evaluated, either approved or denied, is being edited. The user who is modifying the request is required to enter a reason for the modification.
Cancelled <i>(non-reversible)</i>	The submitter has decided to withdraw the outage request any time after the outage was submitted for evaluation. To have the request for cancellation recognized, the user who cancels the request is required to enter a reason for the cancellation. The outage request information remains in the Outage Scheduler (OMS) database(s) and can be displayed.
Completed <i>(non-reversible)</i>	This status is only available for generation outage requests. For a currently ongoing and approved request, the user can accurately reflect the early completion of the outage request. The user who is completing the request is required to enter the time and date of job completion.

Uploading Generator Outage Requests

- **Generator Outage File Upload from OMS Dashboard**
 - CSV File Format
 - File may contain a single outage request, or multiple outage requests



Generator Outage File Upload



The screenshot displays the 'Generator Outage File Upload' interface. At the top, there is a navigation bar with 'My Dashboard', 'O.R.E.', 'Outage Request List', 'Pending Requests List', and 'My Settings'. Below this, the main content area is titled 'Generator Outage File Upload'. It features a 'File:' input field with a file icon, a large dashed box labeled 'Drag and Drop', and a 'Success' message box. The success message reads: 'Outage file submitted for validation and processing. Results will be e-mailed to associated user(s).' with an 'OK' button.

For more information on specific details required for .CSV uploads see [OMS User Guide](#)

Generation Outage File Upload - Validation

■ Levels of validation include

- Format validation
 - Initially checks for errors or missing information in the header records
- Syntax validation
 - Encompass validating that the correct component records are present for each individual outage request in the CSV file
- Business Rules validation
 - Each record within the entire outage request (General record and all Equipment records) must pass the validation rules for the outage request to be submitted



Next Steps

Next Steps

■ Market Trials

- Registration deadline July 8th, 2022
- Participation July 11th – August 5th, 2022
 - Monday – Friday
 - 10:00am – 3:00pm EPT



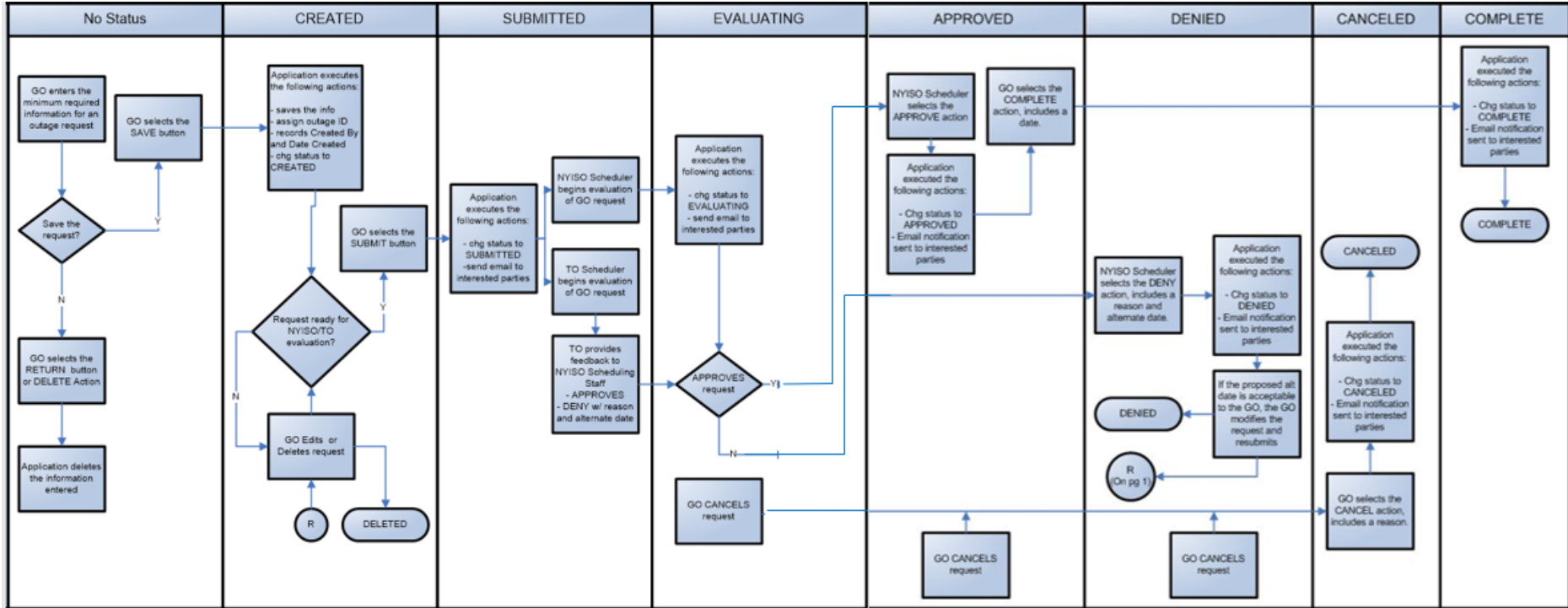
■ Outage Scheduler (OMS) System Implementation

■ eLearning Training Materials Published to NYISO website

- NYISO Outage Scheduling Process
- OMS Navigation for GOs
- OMS Navigation for TOs
- Grid Operations Coordination Portal (GOCP) for Distributed Energy Resource (DER) Aggregators

Additional Resources

Summary GO Outage Request Process Flow



NYISO Supporting Documentation

- Outage Scheduler User's Guide
- Market Participant User's Guide
- NAESB Digital Certificate Tutorial



Questions?

For any future assistance, please contact NYISO Stakeholder Services at stakeholder_services@nyiso.com or by phone at (518) 356-6060