

NERC

NORTH AMERICAN ELECTRIC
RELIABILITY CORPORATION

Connected Storage Performance

GADS Solar Training - Module 8

May 2024

RELIABILITY | RESILIENCE | SECURITY

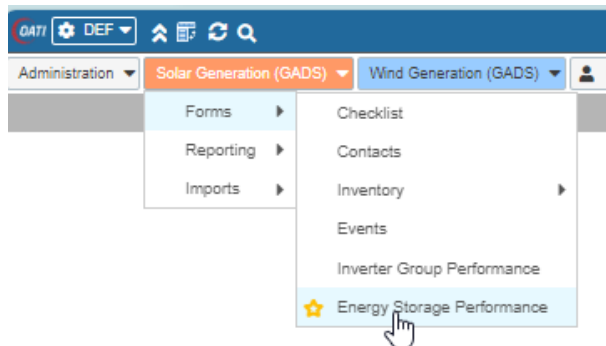


- Concepts
- Add Storage Performance
- Storage Performance Update
- Validations
- Export, correct, and reimport
- Storage Performance Import (Excel)
- Append, Update, Full Replace

- All graphics (screen shots) in this presentation are courtesy of Open Access Technology International (OATI), Inc.

Storage Group Performance – User Interface

- Login to the NERC GADS OATI Wind and Solar Portal
- Click on Solar Generation (GADS)
- Hover over Forms and then click Energy Storage Group Performance

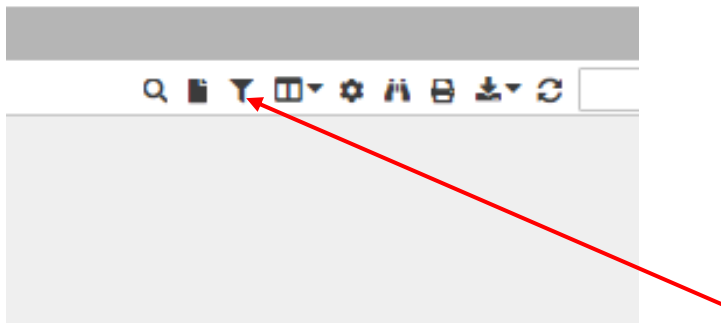


- A list of Storage Group performance records (if any) will appear

The screenshot shows the 'Energy Storage Performance Summary' page. The page has a header with 'Solar Energy Stor...' and a table with the following columns: Company Name, NERC ID, Region, Plant ID, and Plant Name.

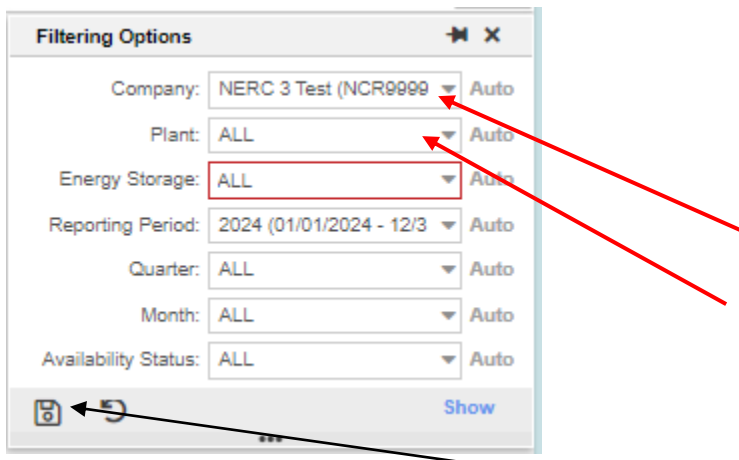
Company			Plant	
Company Name	NERC ID	Region	Plant ID	Plant Name

- You can edit the existing event information by clicking on a storage group performance record or you can create a new record
- You may need to filter (top right of screen) for a certain company and plant before adding a new event



- Click the filter icon to select a company and plant

- Select a company from the filter and click the floppy disk icon to filter



- Select the new icon to create a new plant



- The following screen will appear

OATI NERC Applications | Leeth DePri...

Administration Solar Generation (GADS) Wind Generation (GADS) My Settings

Solar Energy Stor... Solar Energy Stor...

Energy Storage Performance Entry

General Information

<p>Entity</p> <p>NERC ID: NCR99997</p> <p>Company: NERC 3 Test</p> <p>Region: Non North America</p>	<p>Service Date</p> <p>Reporting Year: 2024</p> <p>Reporting Month: <input type="text" value="Please select one..."/></p> <p>Availability Status: <input type="text" value="Please select one..."/></p>
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<p>Plant Info</p> <p>Plant ID: <input type="text" value="Please select one..."/></p> <p>Plant Name: <input type="text" value="Please select one..."/></p>	<p>Energy Storage Group Info</p> <p>Group ID: <input type="text" value="Please select one..."/></p> <p>Group Name: <input type="text" value="Please select one..."/></p>
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Performance Details

Charge Generation: MWh Discharge Generation: MWh

Performance Hours

<p>Available Hours</p> <p>Charging: <input type="text"/> hrs</p> <p>Discharging: <input type="text"/> hrs</p>
<p>Unavailable Hours</p> <p>Planned Outage: <input type="text"/> hrs</p> <p>Maintenance: <input type="text"/> hrs</p> <p>Forced Outage: <input type="text"/> hrs</p>

- Let's look closer at each section

- The NERC ID, company, and region are populated because this company was chosen in the filter

Energy Storage Performance Entry

General Information

Entity NERC ID: NCR99997 Company: NERC 3 Test Region: Non North America	Service Date Reporting Year: 2024 Reporting Month:* Please select one... 1 Availability Status:* Please select one... 2
Plant Info Plant ID:* Please select one... 3 Plant Name:* Please select one...	Energy Storage Group Info Group ID:* Please select one... 4 Group Name:* Please select one...

1. Select the reporting month from the picklist
2. Select the availability status from the picklist
3. Select the plant ID from the picklist or select the plant name from the picklist
4. Select the storage group ID from the picklist or select the storage group name from the picklist

- This part of the screen is for performance details entry

Performance Details

Charge Generation: MWh

Discharge Generation: MWh

1. Enter the number of MWh used to charge the energy storage device
2. Enter the number of MWh that were discharged (generated) from the energy storage device

- This part of the screen is for performance hours entry

Performance Hours

Available Hours

Charging: hrs Discharging: hrs

Unavailable Hours

Planned Outage: hrs Forced Outage: hrs

Maintenance: hrs

1. Enter the number of hours the energy storage group was charging
2. Enter the number of hours the storage group was discharging
3. Enter the number of planned outage hours
4. Enter the number of forced outage hours
5. Enter the number of maintenance outage hours

Storage Group Performance – Excel Template

Energy Storage Performance

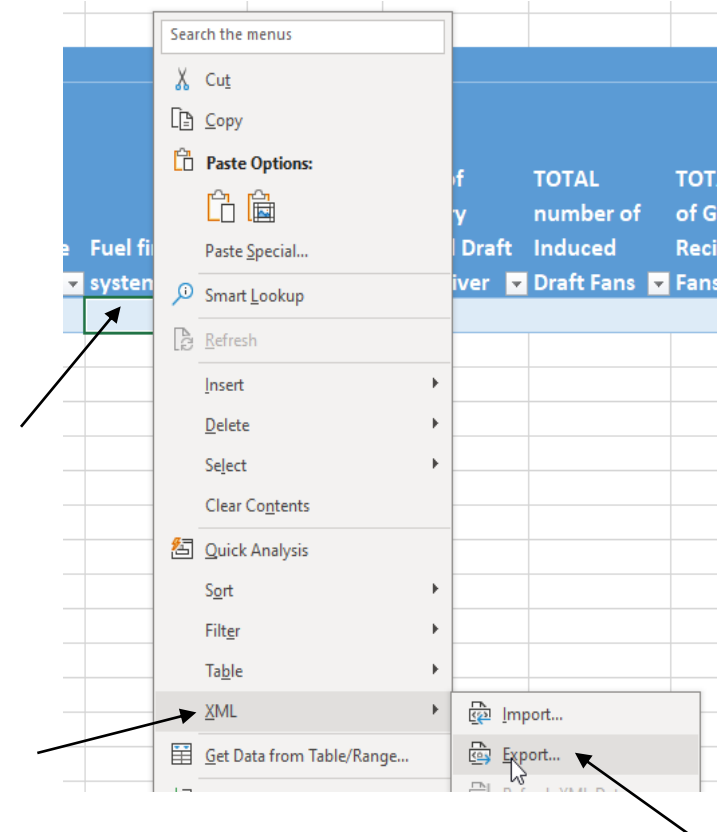
Storage	Reporting	Reporting	Storage Group	Charge	
Plant ID ▾	Group ID ▾	Month ▾	Year ▾	Availability Status ▾	Generation ▾
1	2	3	4	5	6

- Remember the pop-up windows provide helpful information
1. Enter the NERC plant ID
 2. Enter the energy storage group ID
 3. Enter the number of the reporting month
 4. Enter the reporting year
 5. Select the storage group availability status from the picklist
 6. Enter the MWh of charge generation

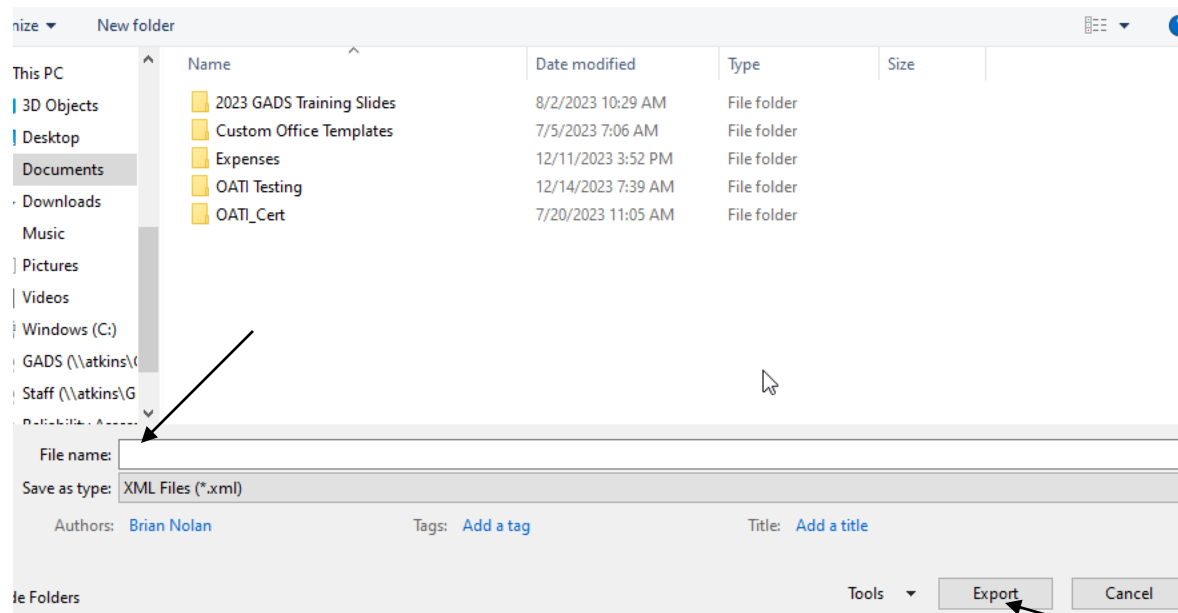
Discharge Generation	Charging Hours	Discharging Hours	Forced Outage Hours	Maintenance Outage Hours	Planned Outage Hours
1	2	3	4	5	6

- Remember the pop-up windows provide helpful information
1. Enter the MWh of discharge generation
 2. Enter the number of charging hours for the energy storage group
 3. Enter the number of discharging hours for the energy storage group
 4. Enter the number of hours that the energy storage group was in a forced outage state
 5. Enter the number of hours that the energy storage group was in a maintenance outage state
 6. Enter the number of hours that the energy storage group was in a planned outage state

- You are now ready to export your Energy Storage performance data file to OATI
- Save your Excel template to a place of your choosing
- Next create the XML file for an Energy Storage Performance Record
 - Make sure that you are on the “Storage Performance” worksheet tab
 - Right click a cell somewhere on a row of data on the “Storage Performance” worksheet
 - Select XML from the popup menu
 - Select export from the popup menu

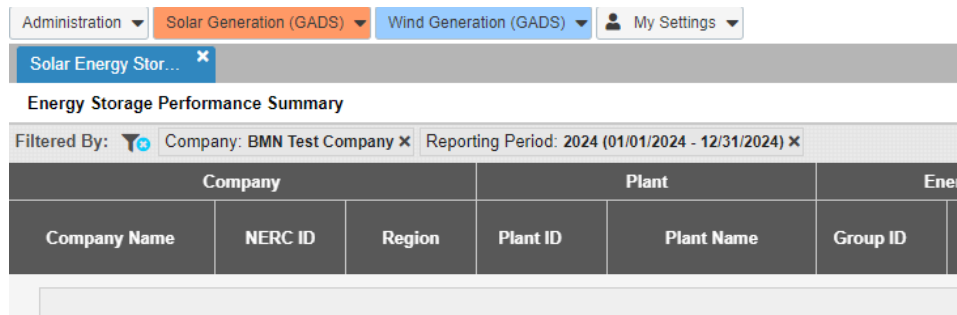
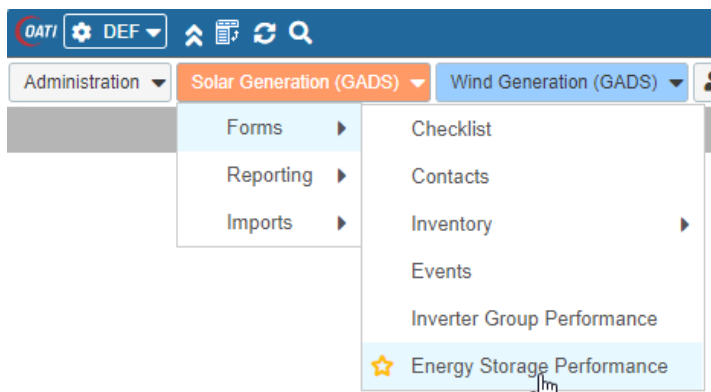


- Name the file, select where you want the file saved, and press the export button



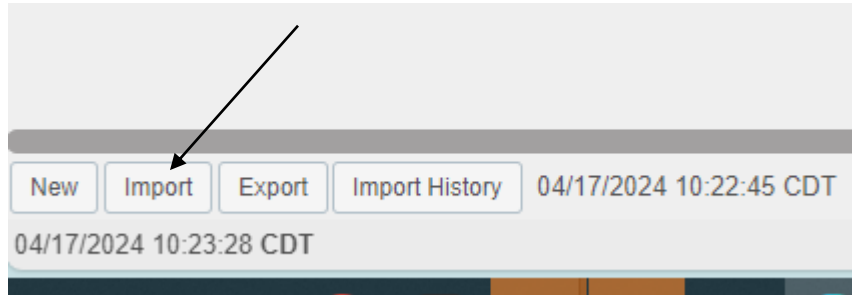
- Make note of your file name and where you saved it

- Next import the XML file into the OATI system
 - Log into the OATI Solar GADS system
 - Navigate to the appropriate menu item on the Solar interface
 - Click on SOLAR Generation (GADS) on the top menu ribbon
 - Click Forms and then Energy Storage Performance in the dropdown menu

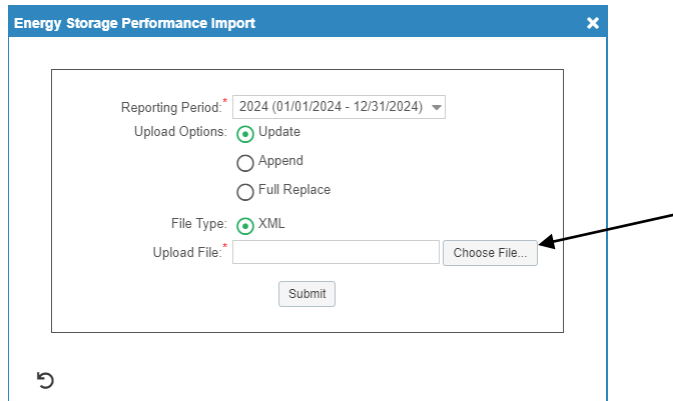


- A list of previously created Storage Group Performance Records (if any) will appear

- An Import button will appear on the bottom left of the screen

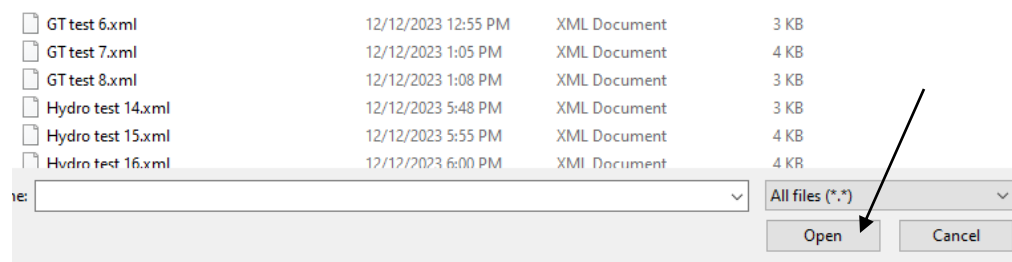


- Press the import button and the popup below will appear

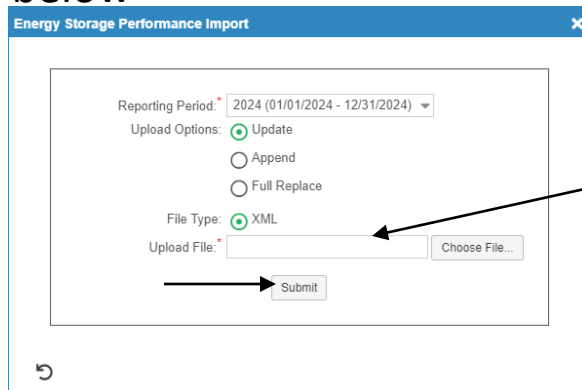


- Click the “Choose File” button on the Energy Storage Performance Import popup and navigate to where you saved your XML file

- Select the file you just created and press the “Open” button



- Click the submit button on the Energy Storage Performance Import popup shown below



File chosen in previous step will appear here

- If you correctly entered the data in your spreadsheet, your Energy Storage performance record should load without issue and is complete.

A stylized map of North America is centered on the page. The map is divided into three horizontal sections by a dark blue band. The top section, covering Canada, is light purple. The middle section, covering the United States, is dark blue. The bottom section, covering Mexico, is light grey. The text "Questions and Answers" is overlaid on the dark blue band in the center.

Questions and Answers