Connected Energy Storage

GADS Solar Training - Module 5

May 2024

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

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

Connected Storage – User Interface

- Login to the NERC GADS OATI Wind and Solar Portal

- Click on Solar Generation (GADS)

- Hover over Forms and Inventory, then click on Energy Storage
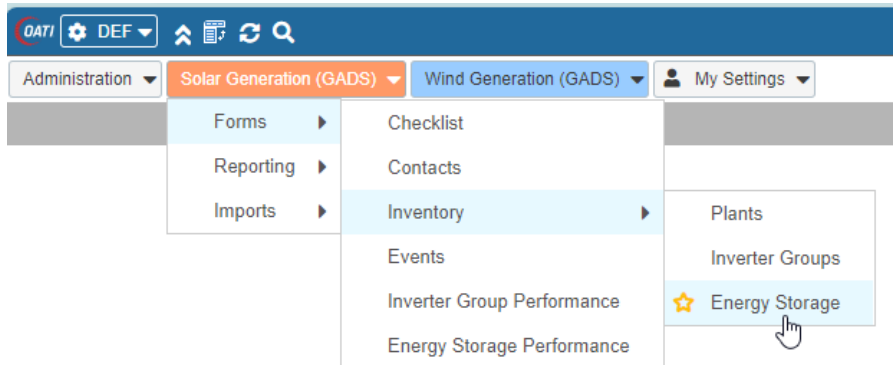
- A list of Energy Storage groups (if any) will appear

- You can edit the storage group information by clicking on a storage group or you can create a new storage group
- You may need to filter (top right of screen) for a certain company before adding energy storage
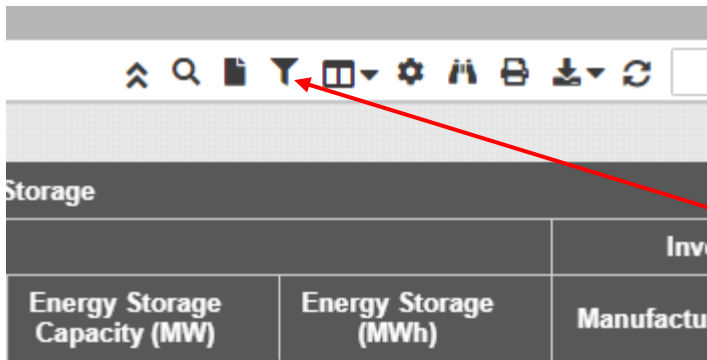
- Click the filter icon to select a company

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

- Select the new icon to create a new energy storage group
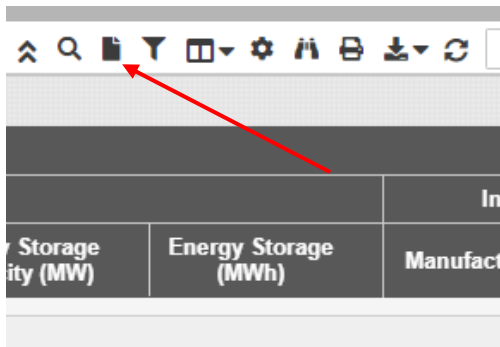
- The following screen will appear

- Let's look closer at each section

- The entity (company) data is filled in because the company has already been created

Entity

NERC ID: NCR99997

Company: NERC 3 Test

Region: Other

Data Reporter

Name: Leeth DePriest

Email: leeth.depriest@nerc.net

Phone Number:

Submission Date: 03/18/2024

- This part of the screen is for energy storage group information entry

1. Select the Plant ID from the picklist or select the plant name from the picklist
2. Enter the storage group name
3. Enter the EIA plant code for the energy storage group as reported to EIA
4. Enter the unique storage group identifier assigned by the ISO or RTO if applicable
5. Enter the commissioning date
6. Select the ownership status from the picklist - Select **ID Request** for a new storage group
7. Enter the effective date as the commissioning date of the new storage group
   - For updates to existing storage groups, enter the date the change became effective

- This part of the screen is for energy storage group details entry

Energy Storage Details

Storage Manufacturer:	Please select one... [1]
Storage Model:	[2]
Storage Type:	Please select one... [3]
Connection Type:	Please select one... [4]

Chargeable From Grid:	Please select one... [5]
Capacity (MW):	[6]
Energy Storage (MWh):	[7]

1. Select the energy storage manufacturer from the picklist
2. Enter the model of the energy storage equipment. Enter zero (0) if no model number.
3. Select the type of energy storage from the picklist
4. Select the type of energy storage connection from the picklist
5. Select whether the energy storage group can be charged from the grid
6. Enter the generating capacity of the energy storage group. This is equal to installed capacity minus electrical losses between the inverter and revenue meter.
7. Enter the energy storage rating in MWh for the energy storage group

- This part of the screen is for energy storage group inverter details entry

Inverter Details

Inverter Manufacturer: Please select one... 1

Inverter Model: 2

1. Select the energy storage inverter manufacturer from the picklist
2. Enter the model of the energy storage group inverter. Enter zero (0) if model is not applicable.

- This part of the screen is for Reporting Period data entry

1. Select the Reporting Status from the picklist
   - Press the save button (floppy disk icon) on the bottom left of screen when all information has been entered

Attached Storage – Excel Template

Energy Storage Inventory Design Data

Entity ID	Plant ID	Energy Storage Group ID	Energy Storage Group Name	Energy Storage Group EIA Code	Energy Storage Group ISO ID	Energy Storage Type	Energy Storage Group Capacity Rating (MW)
1	2	3	4	5	6	7	8

- *Remember the pop-up windows provide helpful information*

1. Enter the company NCR (NERC Compliance Registry) number or voluntary reporting ID (Entity ID)

2. Enter the plant ID assigned by the GADS Solar application.

3. Enter the energy storage group ID assigned by the GADS Solar application. Leave blank for new storage group.

4. Enter the energy storage group name. This will not be assigned by NERC or the GADS Solar application.

5. Enter the EIA plant code for the energy storage group as reported to EIA

6. Enter the unique storage group identifier assigned by the ISO or RTO if applicable

7. Select the type of energy storage from the picklist

8. Enter the generating capacity of the energy storage group. This is equal to installed capacity minus electrical losses between the inverter and revenue meter.

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Energy Storage Group Energy Rating (MWh)	Energy Storage Connection	Energy Storage Chargeable from Grid	Energy Storage Manufacturer	Energy Storage Model	Commissioning Date	Energy Storage Inverter Manufacturer
1	2	3	4	5	6	7

- *Remember the pop-up windows provide helpful information*

1. Enter the energy storage rating in MWh for the energy storage group
2. Select the type of energy storage connection from the picklist
3. Select whether the energy storage group can be charged from the grid
4. Select the energy storage manufacturer from the picklist
5. Enter the model of the energy storage equipment. Enter zero (0) if no model number.
6. Enter the energy storage commercial operation date
7. Select the energy storage inverter manufacturer from the picklist

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Energy Storage Inverter Model	Energy Storage Ownership Status	Effective Date
1	2	3

- Remember the pop-up windows provide helpful information

1. Enter the model of the energy storage group inverter. Enter zero (0) if model is not applicable.

2. Select the energy storage ownership status from the picklist

3. Enter the effective date of the energy storage group ownership status being reported.

- You are now ready to export your Storage Group configuration file to OATI

- Save your Excel template to a place of your choosing

- Next create the XML file for the Energy Storage Group design data

  - Make sure that you are on the "Storage" worksheet tab

  - Right click a cell somewhere on a row of data on the "Storage" worksheet

  - Select XML from the popup menu

 - Select export from the popup menu
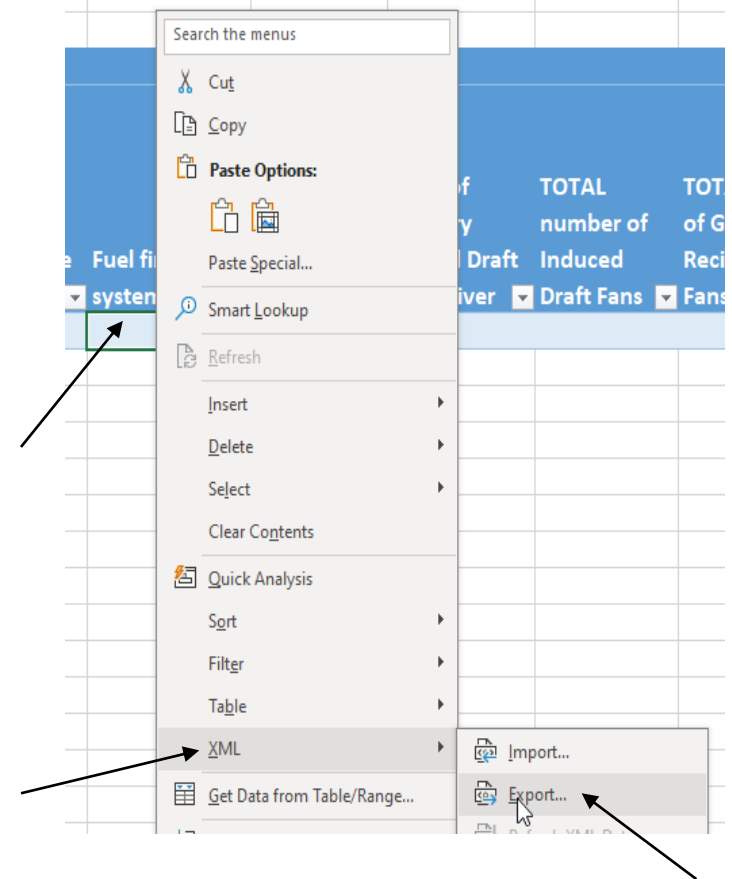
- Name the file, select where you want the file saved, and press the export button
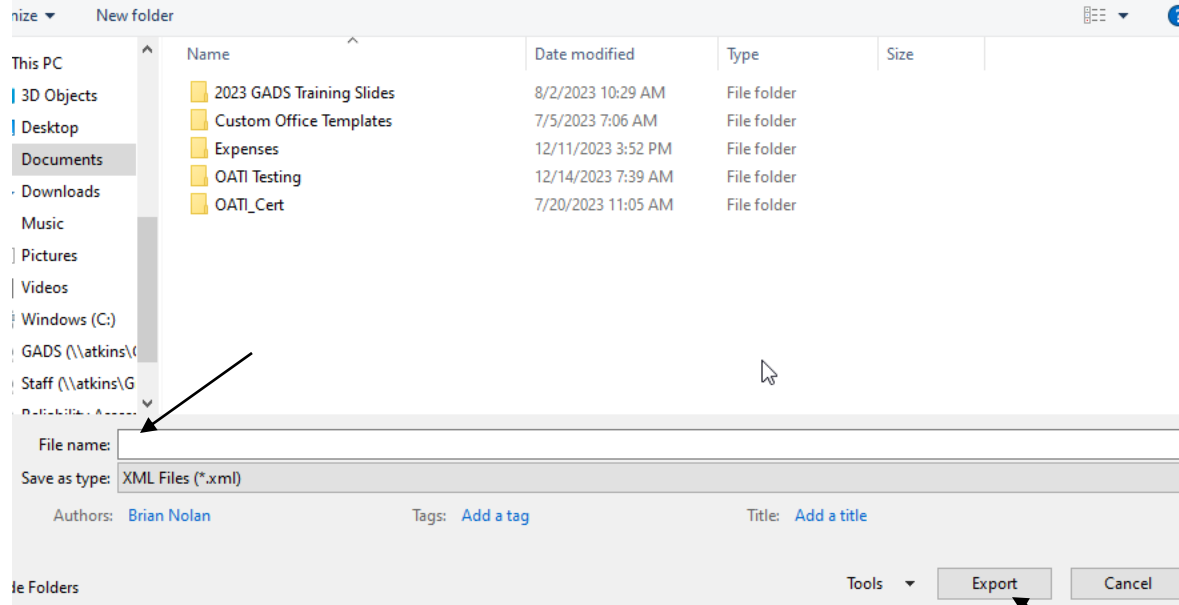
- Make note of your file name and where you saved it

- 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 Inventory in the dropdown menu
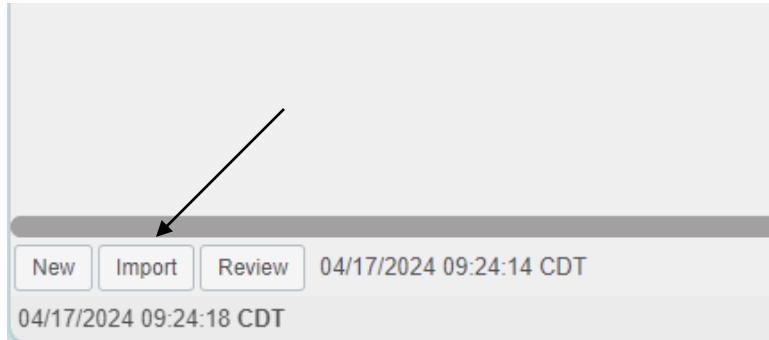   - Click Energy Storage in the dropdown menu
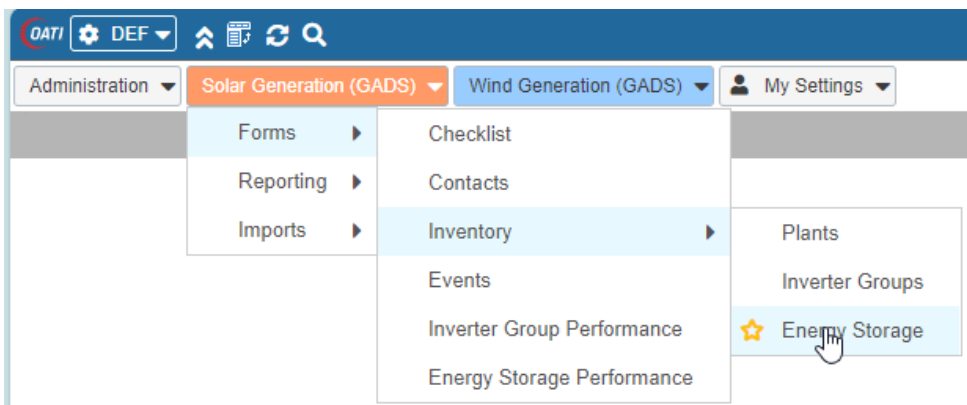
  - A list of previously created Energy Storage groups (if any) will appear

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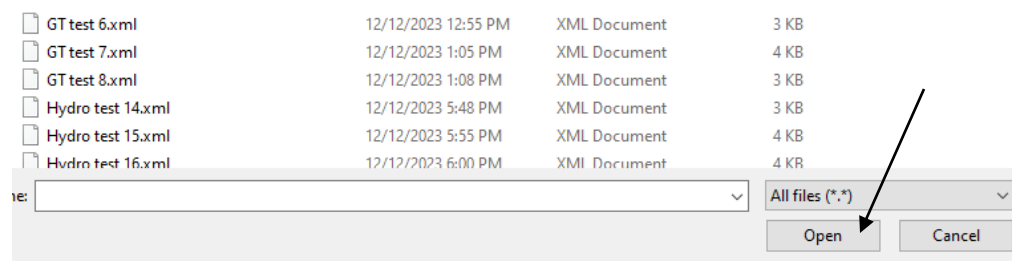

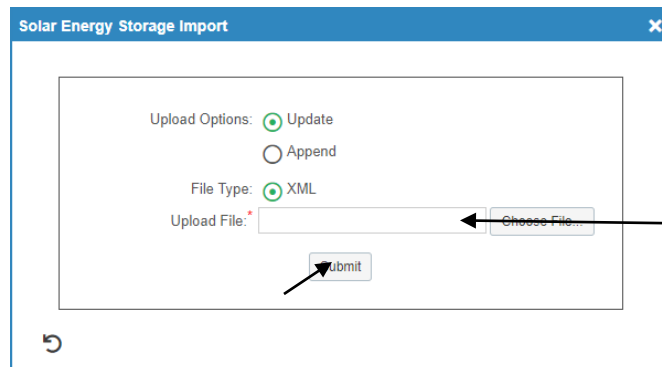- Press the import button and the popup below will appear
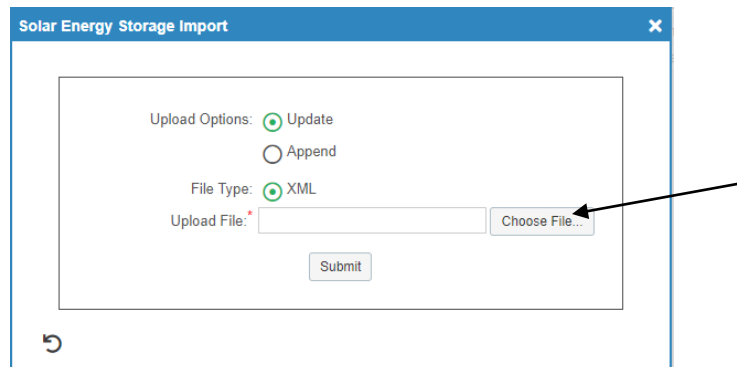
- Click the "Choose File" button on the Solar Energy Storage Import popup and navigate to where you saved your XML file

- Select the file you just created and press the "Open" button

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

File chosen in previous step will appear here

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

Questions and Answers

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