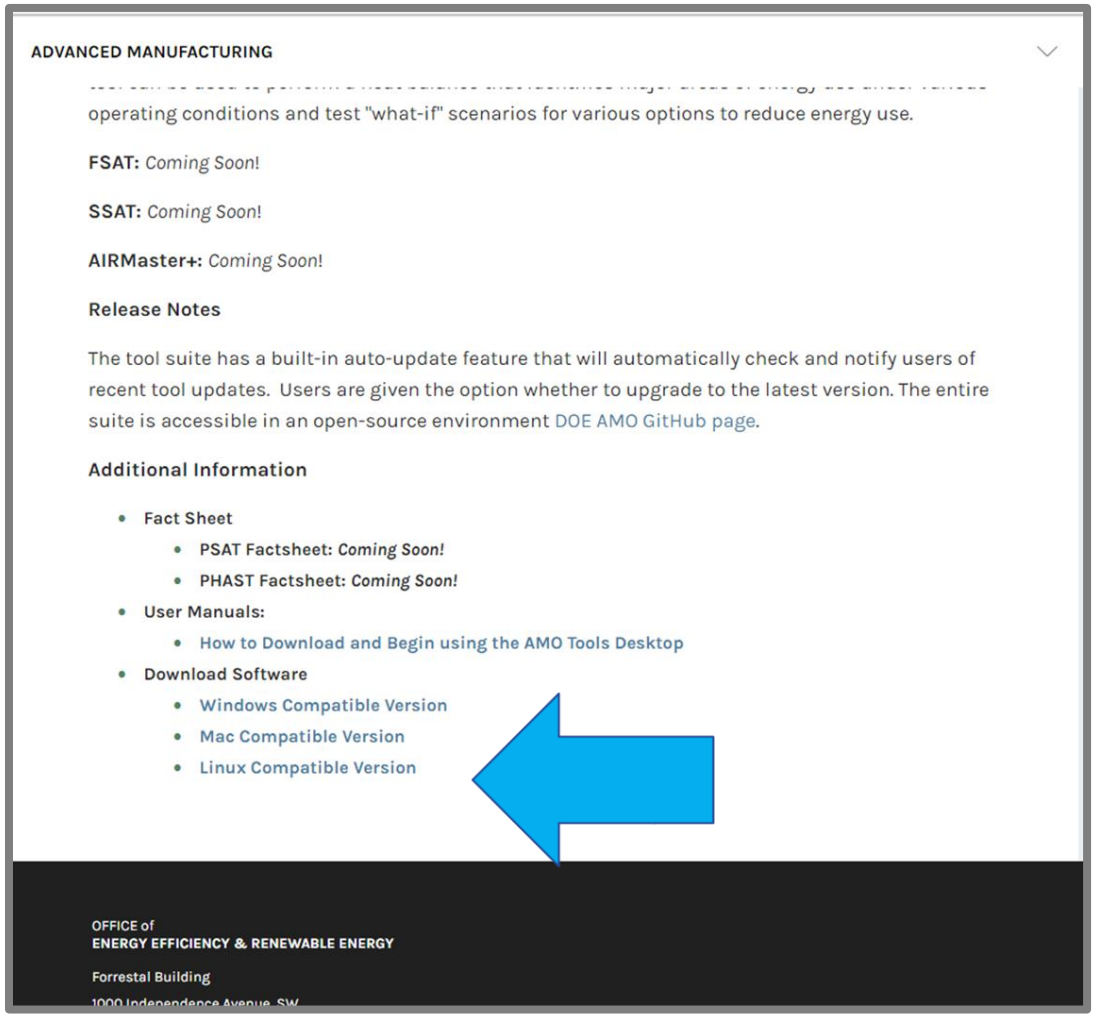
Better Plants
U.S. DEPARTMENT OF ENERGY

How to Download and Begin using MEASUR:

The Manufacturing Energy Assessment Software for Utility Reduction

U.S. DEPARTMENT OF ENERGY

Download via DOE-EERE- AMO website



- https://www.energy.gov/eere/amo/measur
- Includes overview of the effort to reprogram our legacy tools
- Scroll to the bottom to find and download your version

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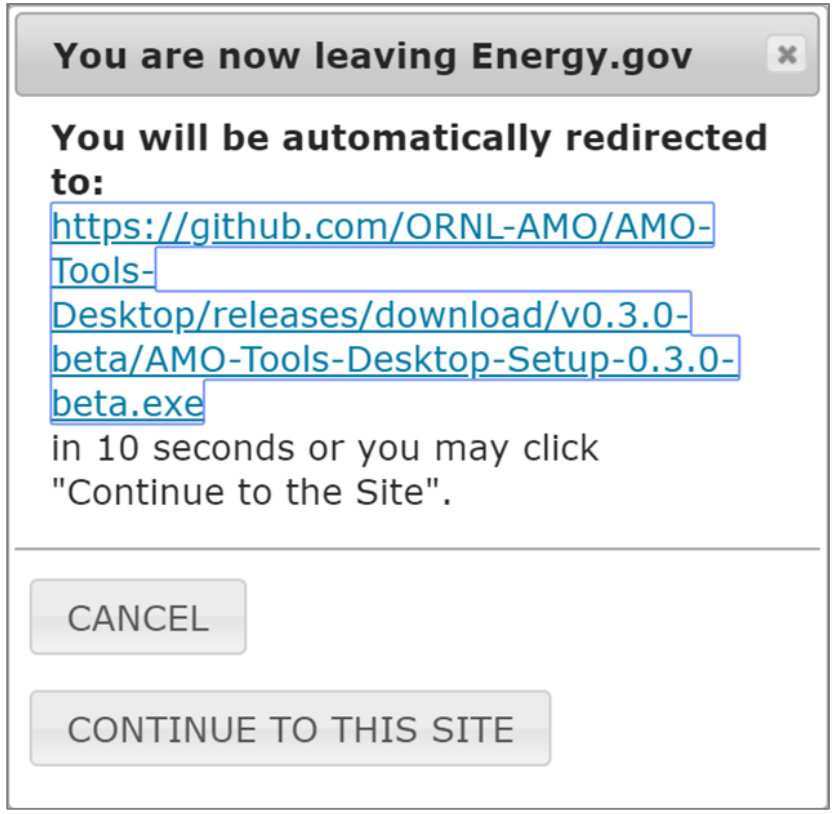
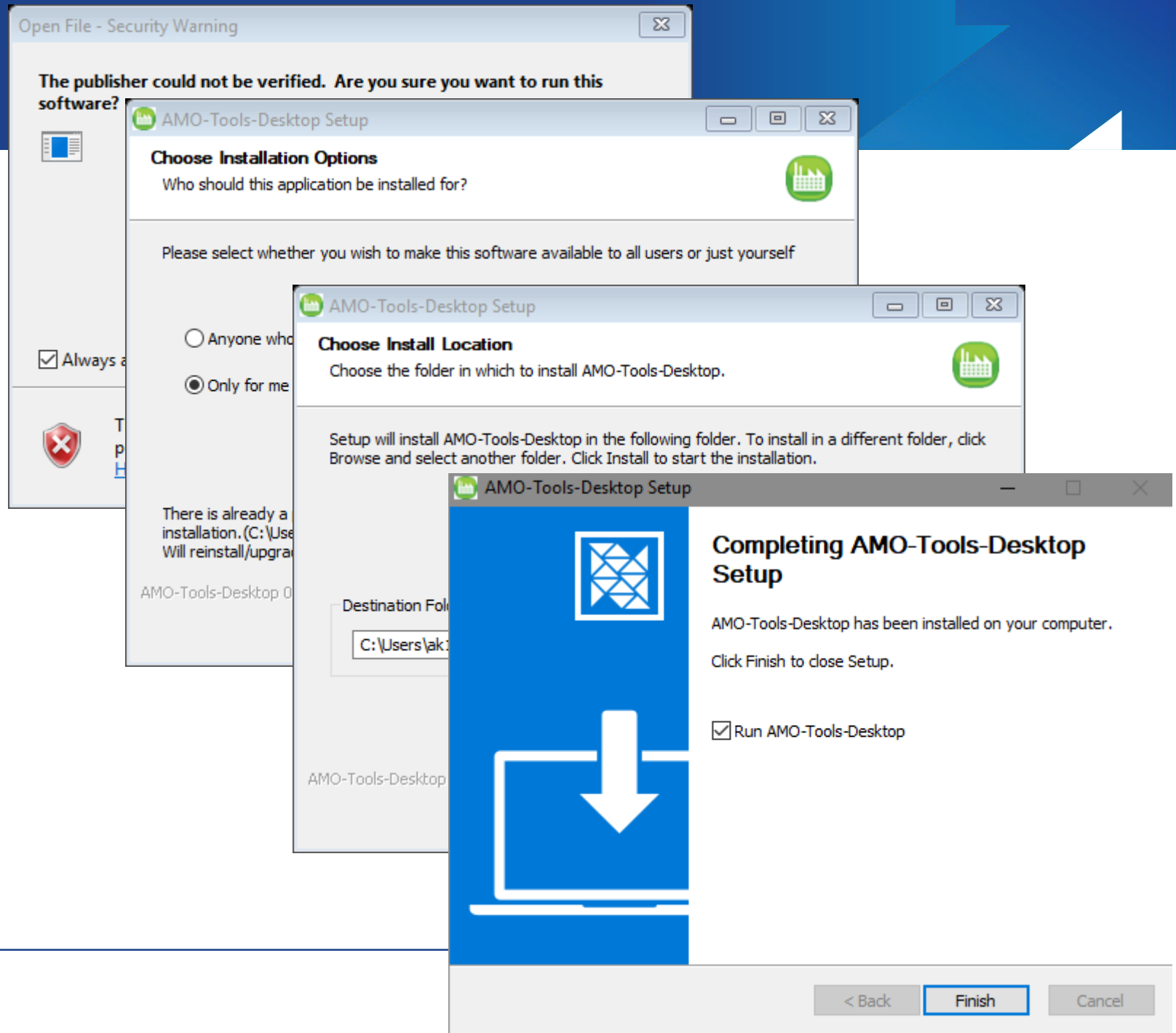


- This message will appear indicating that the file you are downloading is hosted on another website.
- That web site is GitHub, the common repository for software applications and is perfectly safe.

Download

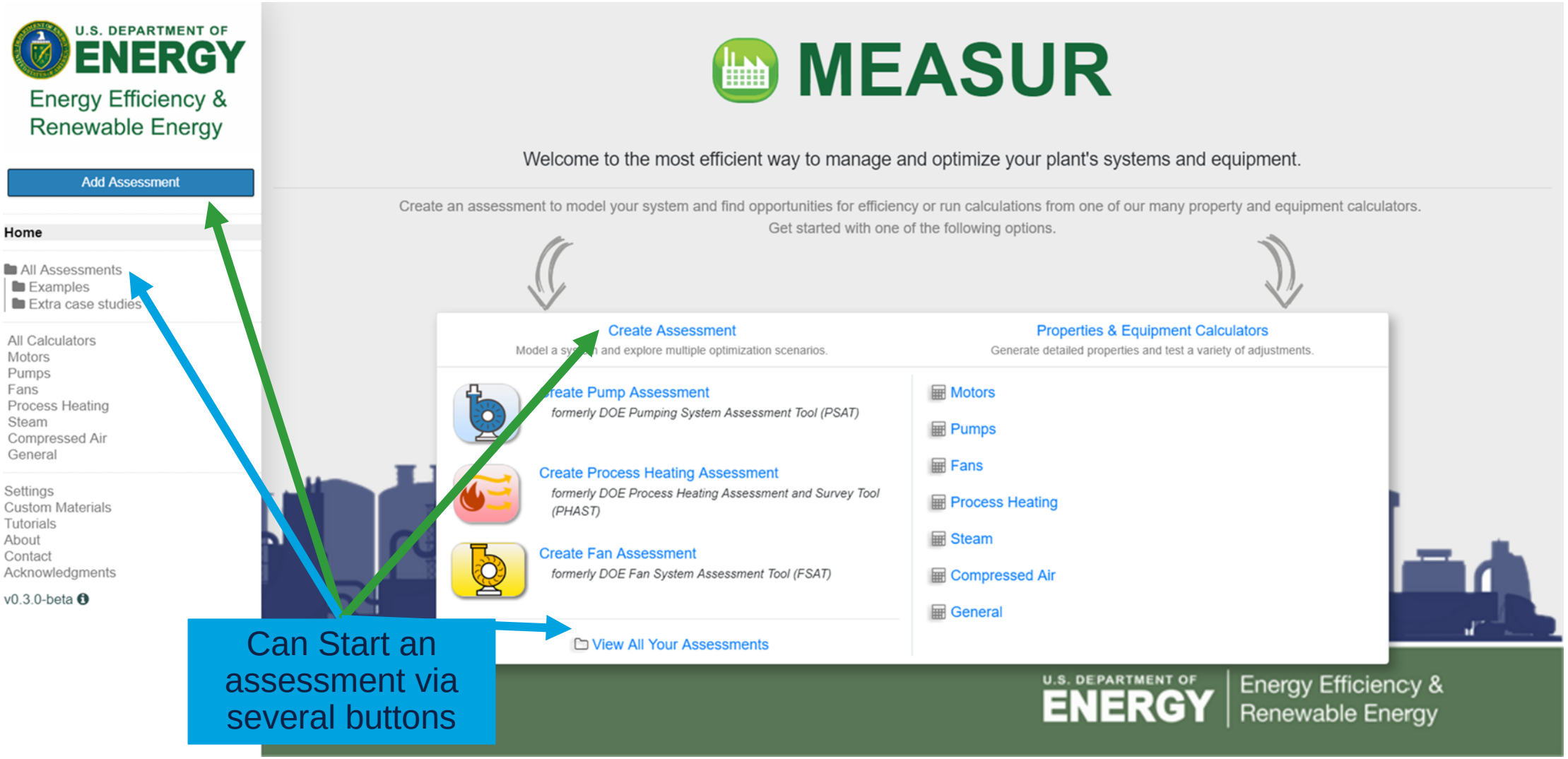
- Click the file extension that matches your operating system
- Open the download
- Click “Run”
- Follow the instructions for the Installation Wizard
- If updating via the webpage DO NOT uninstall first



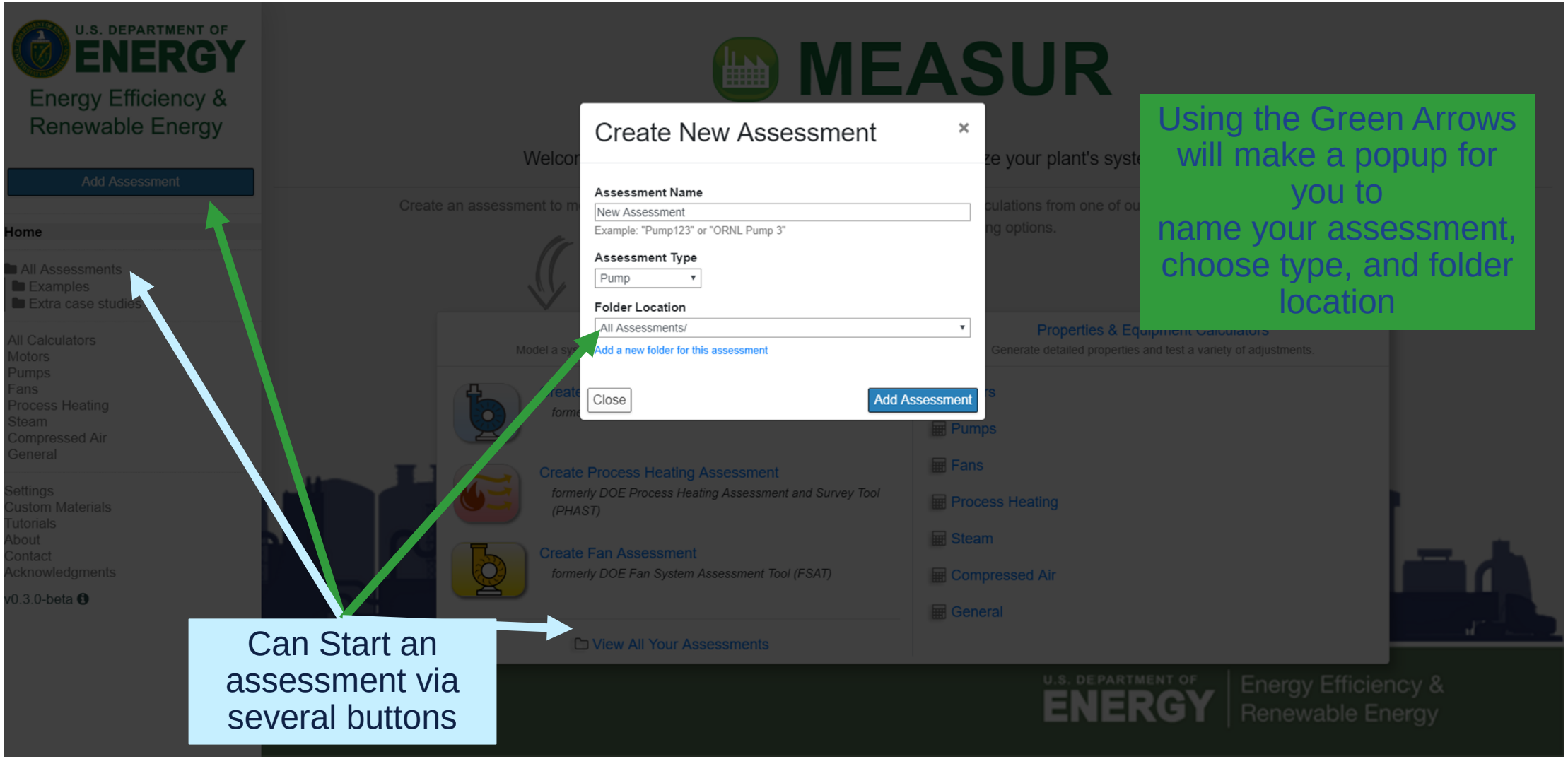
Updating

- This Tool is in beta, so we are constantly upgrading it and publishing releases fairly often.
- After installation, if an update becomes available, a popup will appear at startup to notify you.
  - You can choose to update right away, or you can wait.
  - If for some reason this does not happen, you can download from the AMO Tools Download Center
- DO NOT UNINSTALL before updating, you will lose ALL your assessments.

Getting Started



Getting Started



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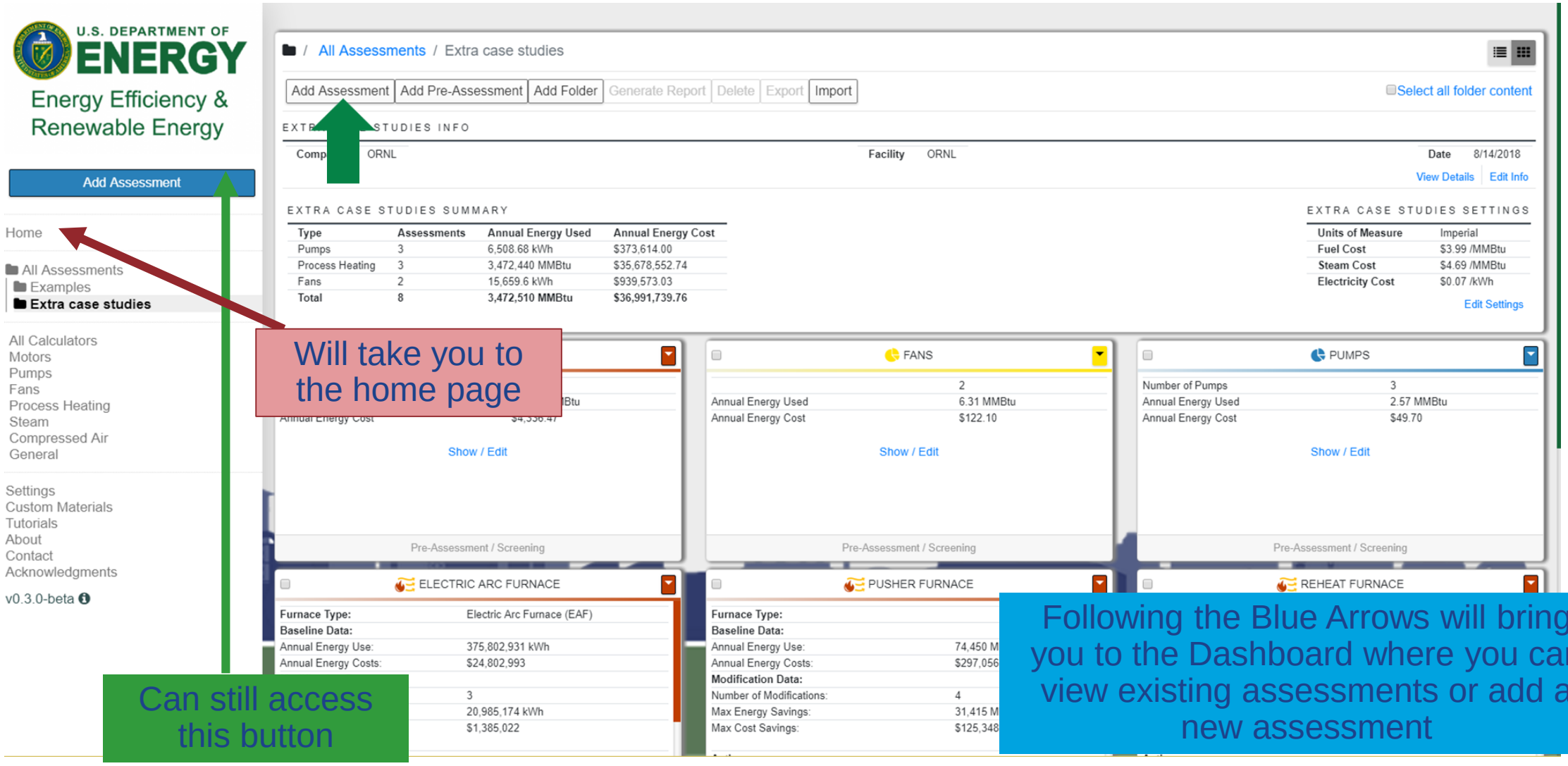
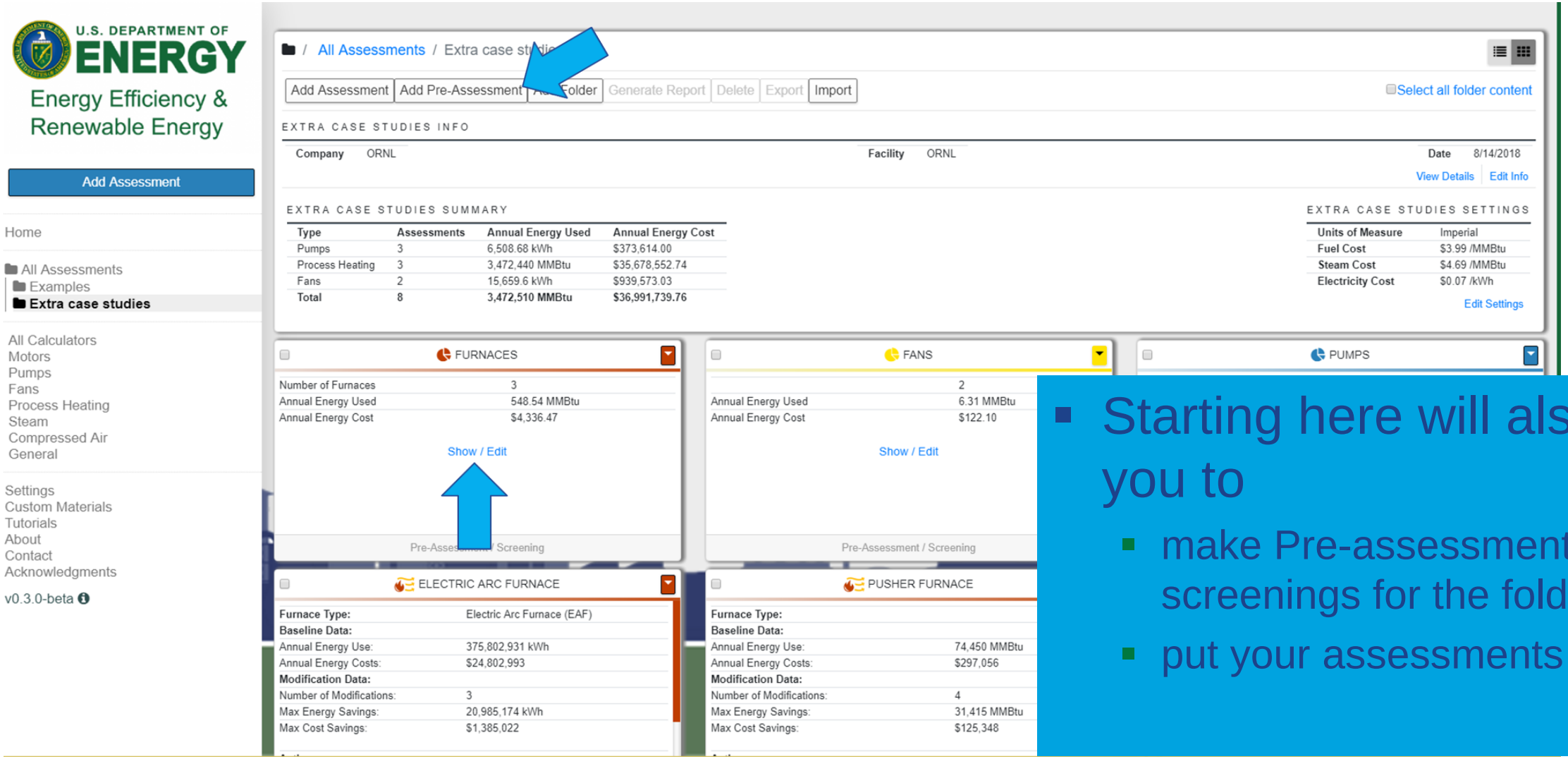
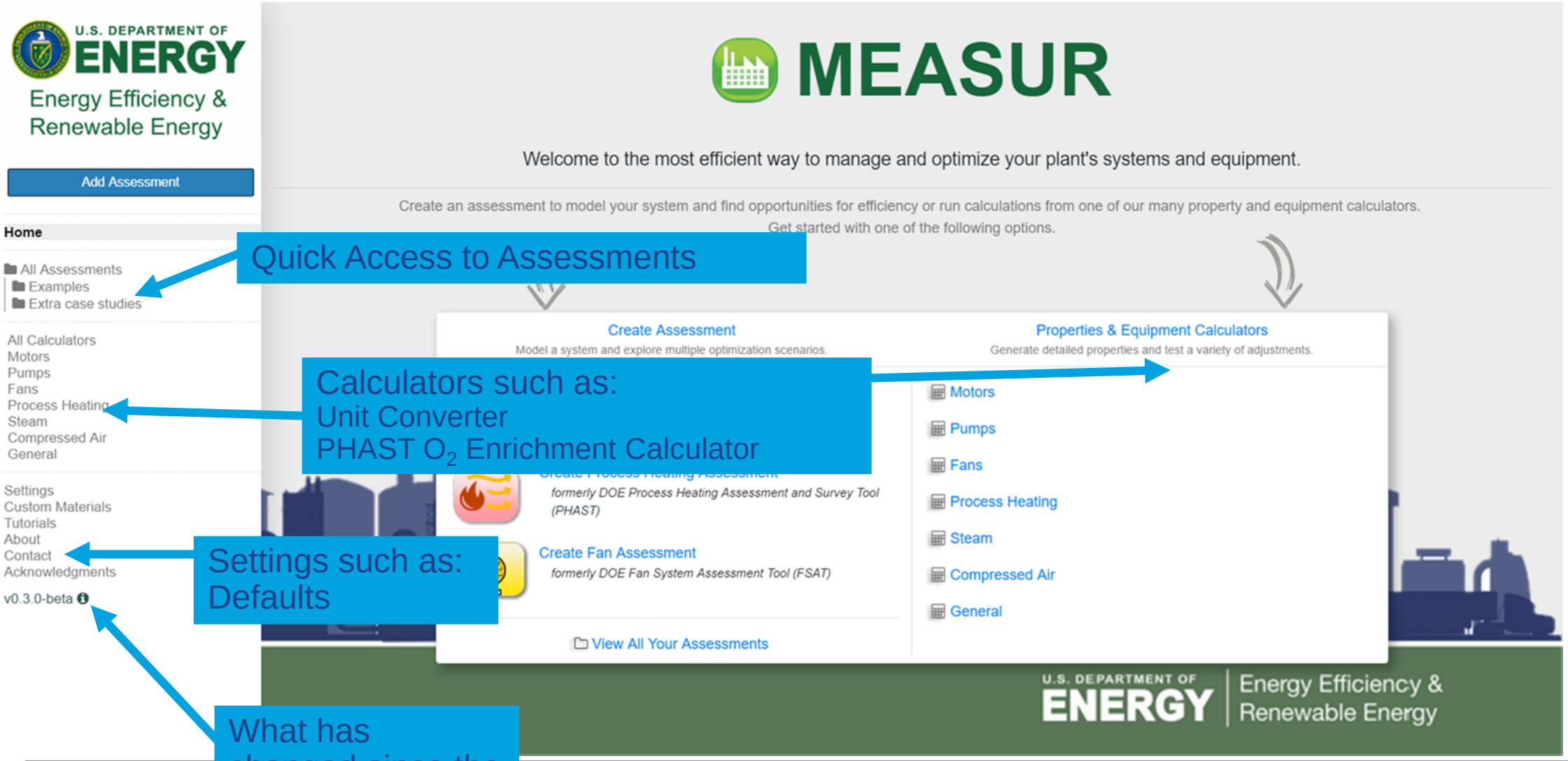


Getting Started



- Starting here will also allow you to
  - make Pre-assessment screenings for the folder
  - put your assessments in folders

Other Important Features



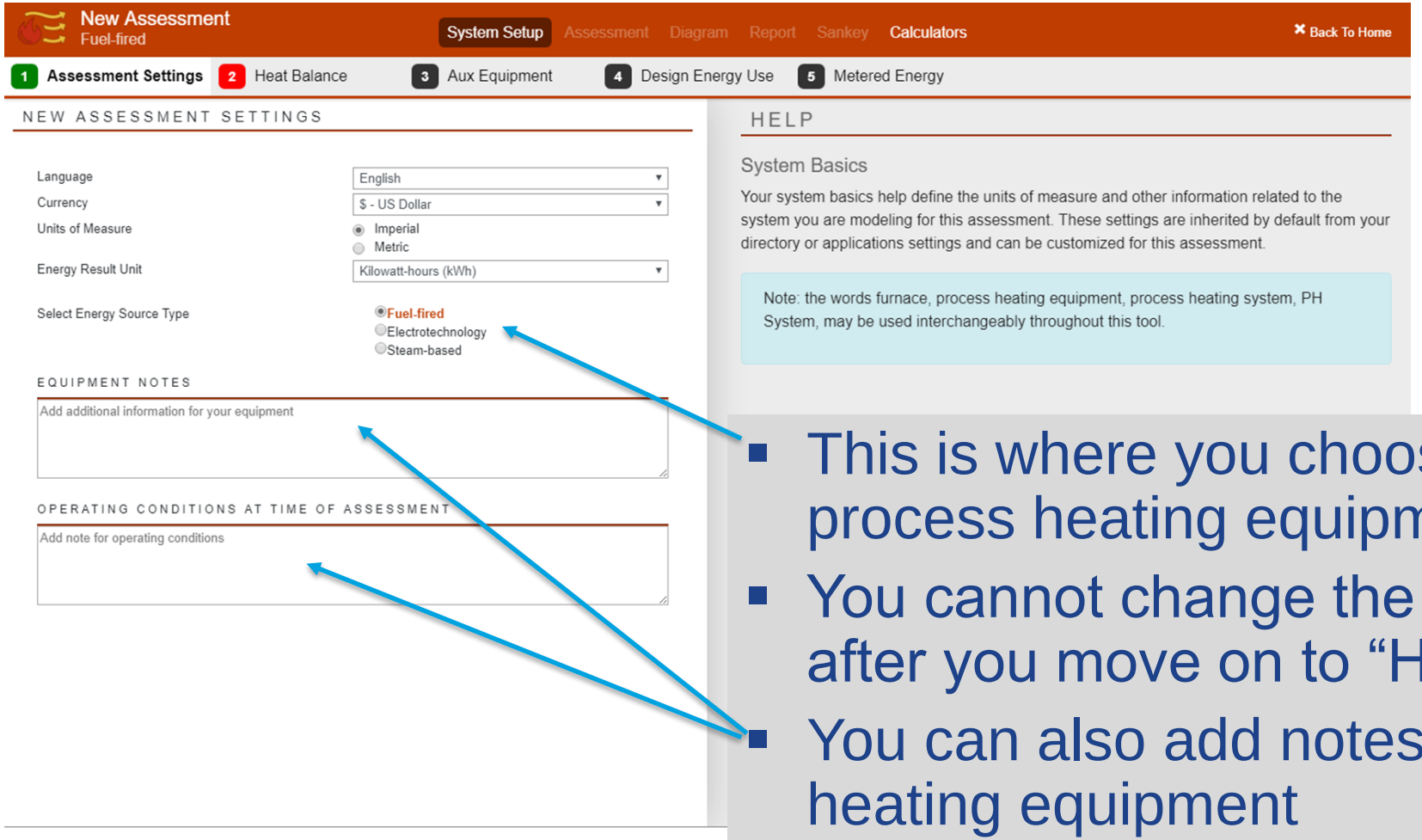
Quick Access to Assessments

Calculators such as:
Unit Converter
PHAST O_2 Enrichment Calculator

Settings such as:
Defaults

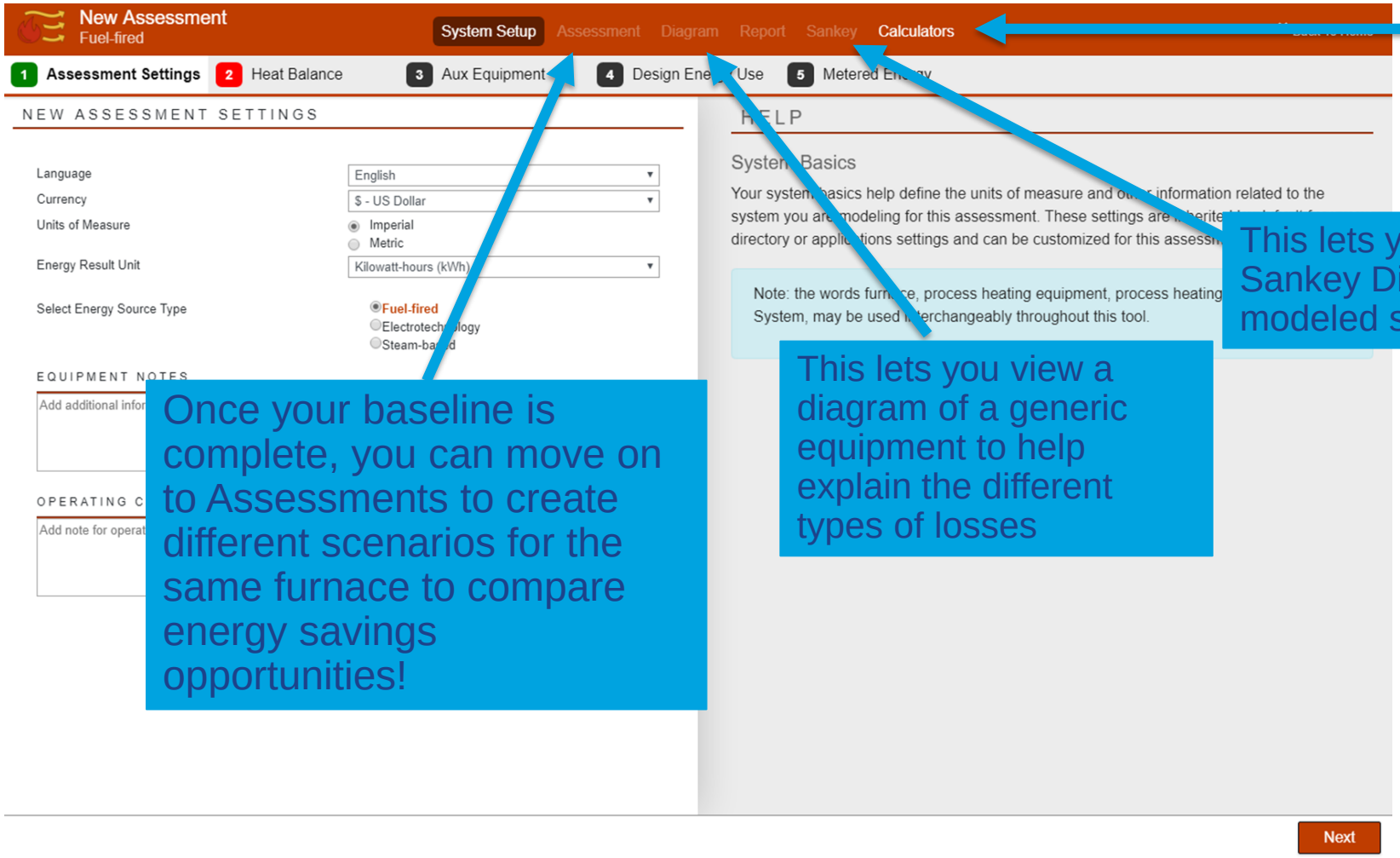
What has changed since the last update

Some things to note about the Process Heating Assessment



- This is where you choose what type of process heating equipment you are modeling.
- You cannot change the “Energy Source Type” after you move on to “Heat Balance”
- You can also add notes about the process heating equipment

Some things to note



You can quickly access calculators at any point!

This lets you view a Sankey Diagram of your modeled system

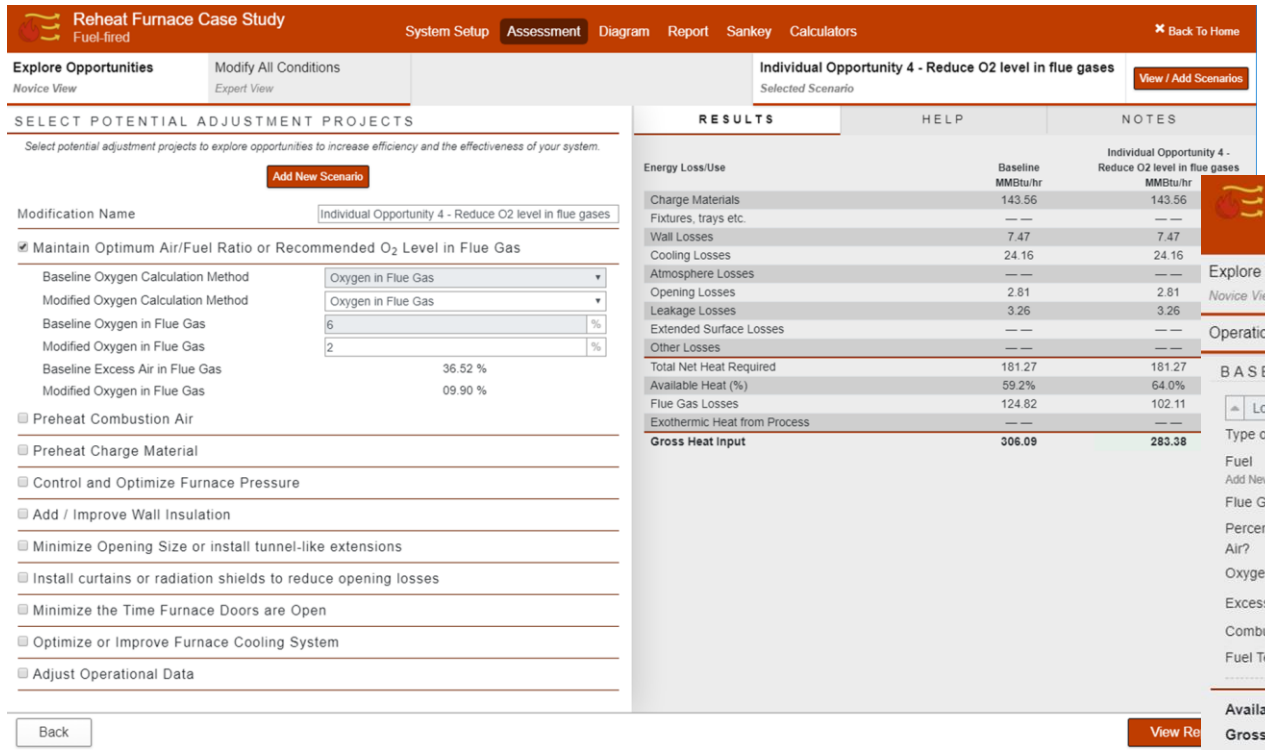
This lets you view a diagram of a generic equipment to help explain the different types of losses

Once your baseline is complete, you can move on to Assessments to create different scenarios for the same furnace to compare energy savings opportunities!

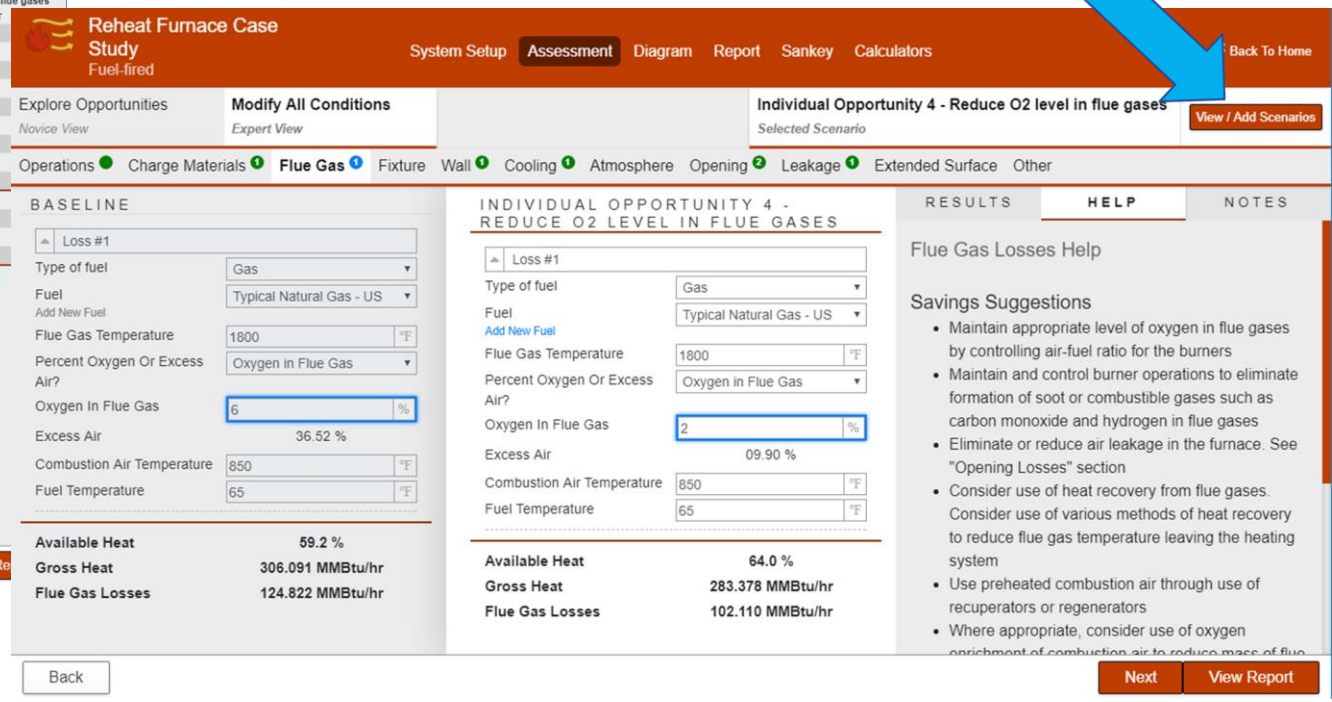
Some things to note

- After finishing your baseline, the other sections (Assessment, Report, etc.) of the tool can be accessed
- You can also begin an “Assessment” where you create “Modifications” for energy savings opportunities
- Once you create a modification, you **cannot** add or remove any losses from your baseline (you can change the values)
- Explore Opportunities allows you to change values relating to several common opportunities
- Modify All Conditions allows you to change any value
  - Here you can make multiple Modifications that you can name individually
  - You can change values in multiple loss calculators

Some things to note

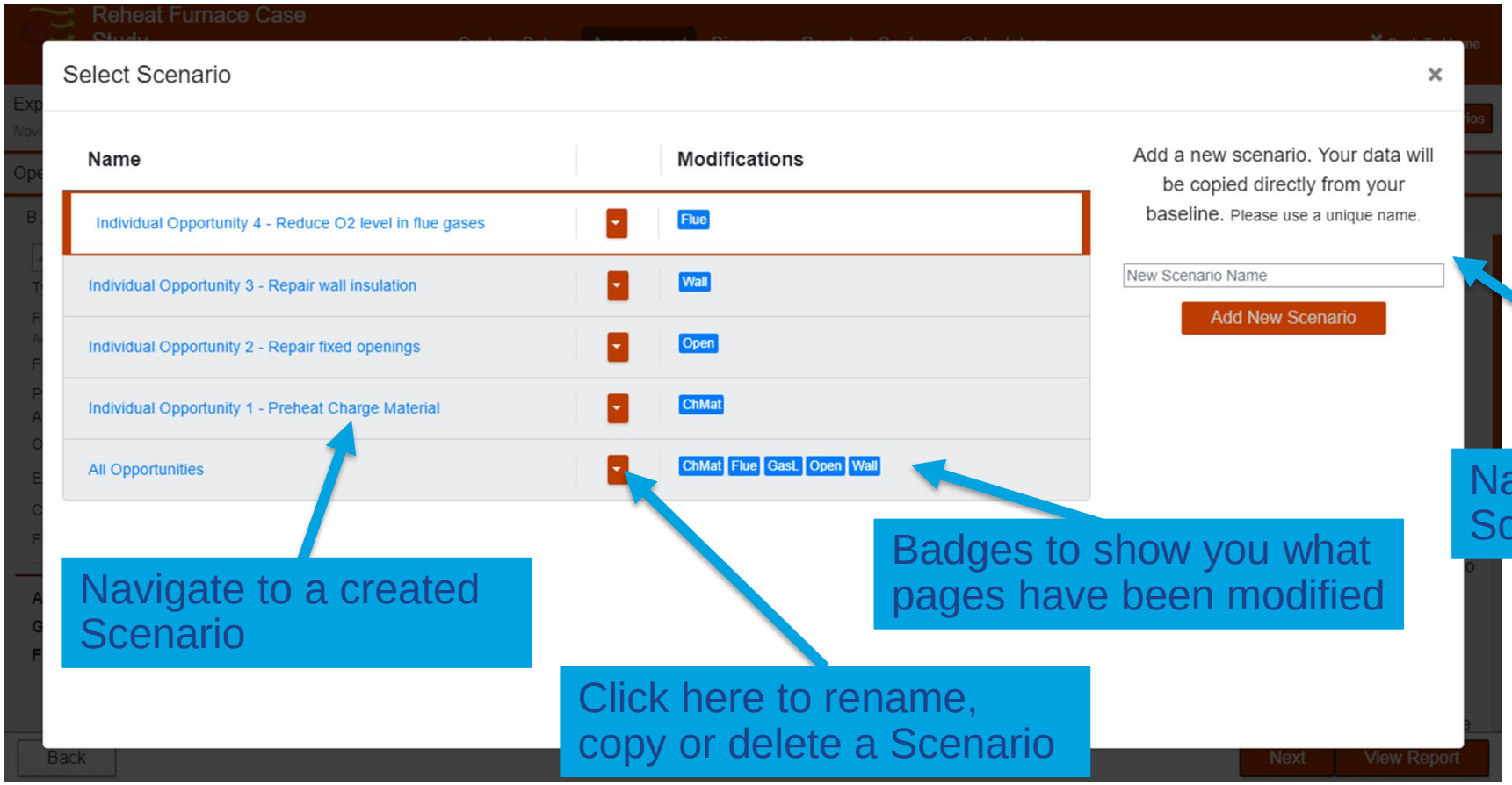


Click here to View all Scenarios or Add a new one!



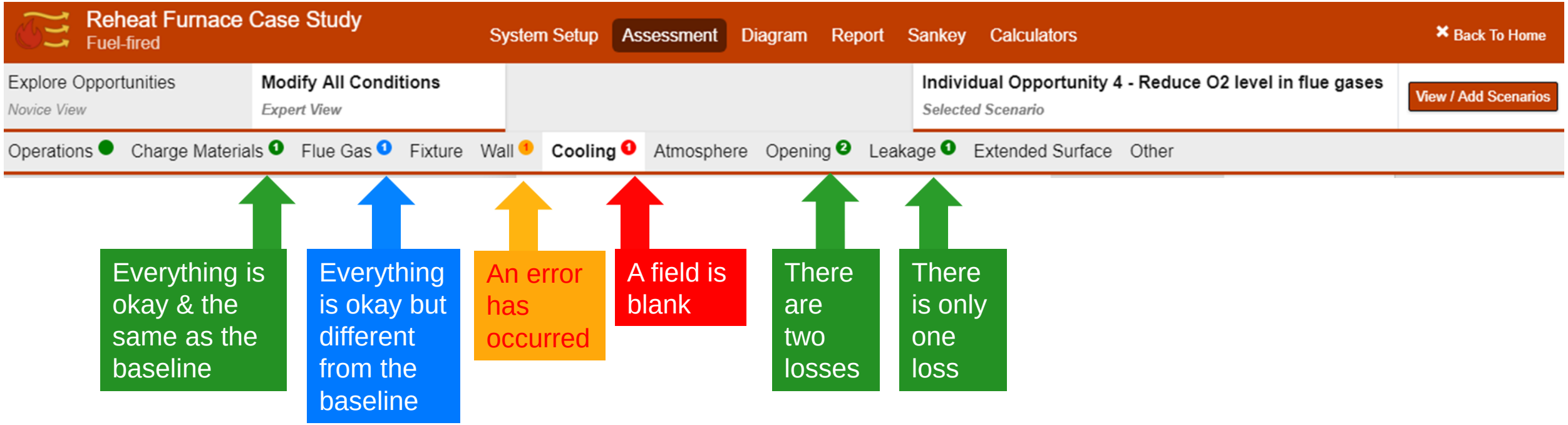
- Two ways to modify a Scenario
  - Explore Opportunities (Novice View)
    - Allows you to only change key energy savings opportunities related fields
  - Modify All Conditions (Expert View)
    - Allows you access to all fields that were used in the baseline for modifying

Some things to note



Some things to note

- Badges show you more information about your assessment at a glance



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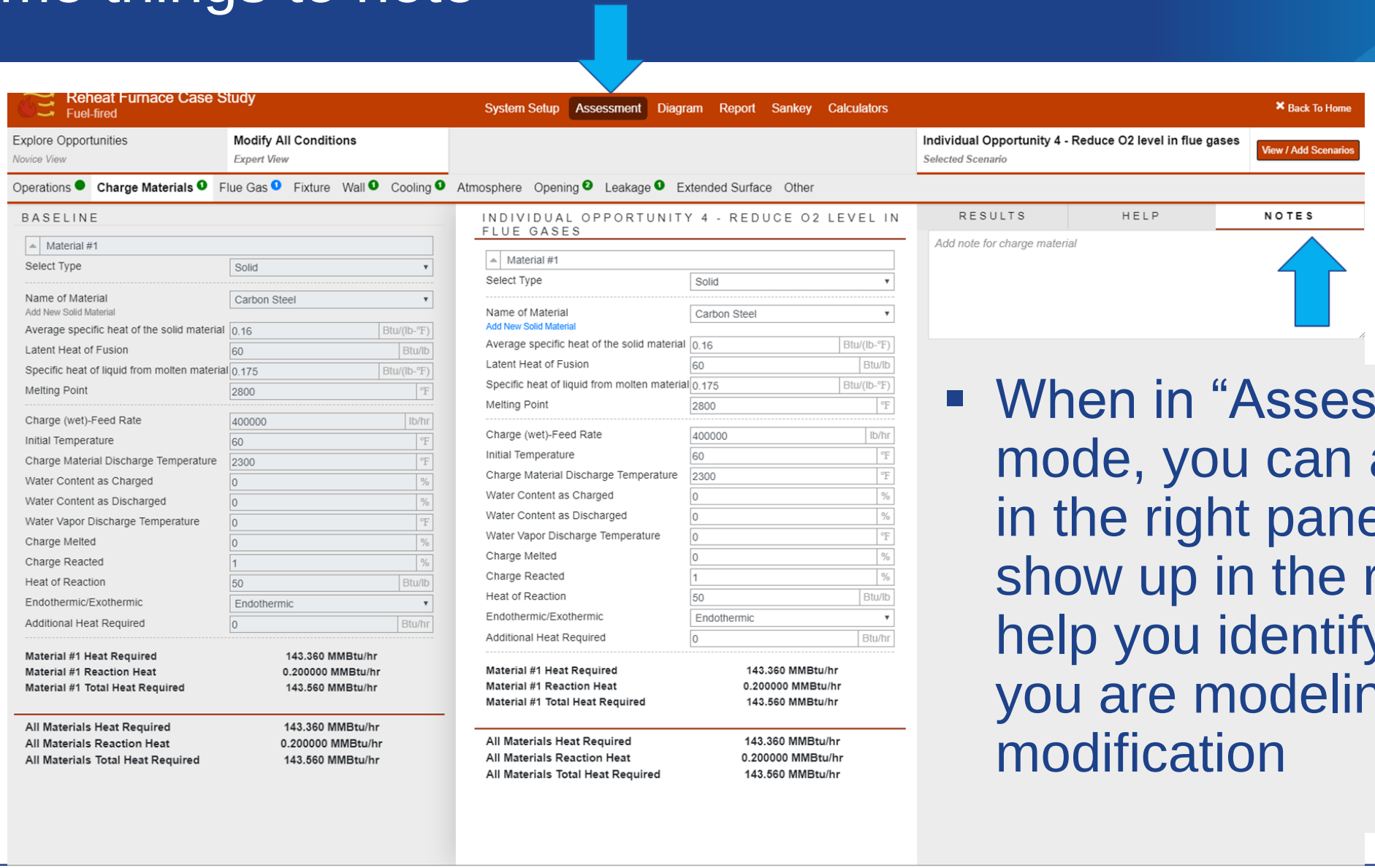
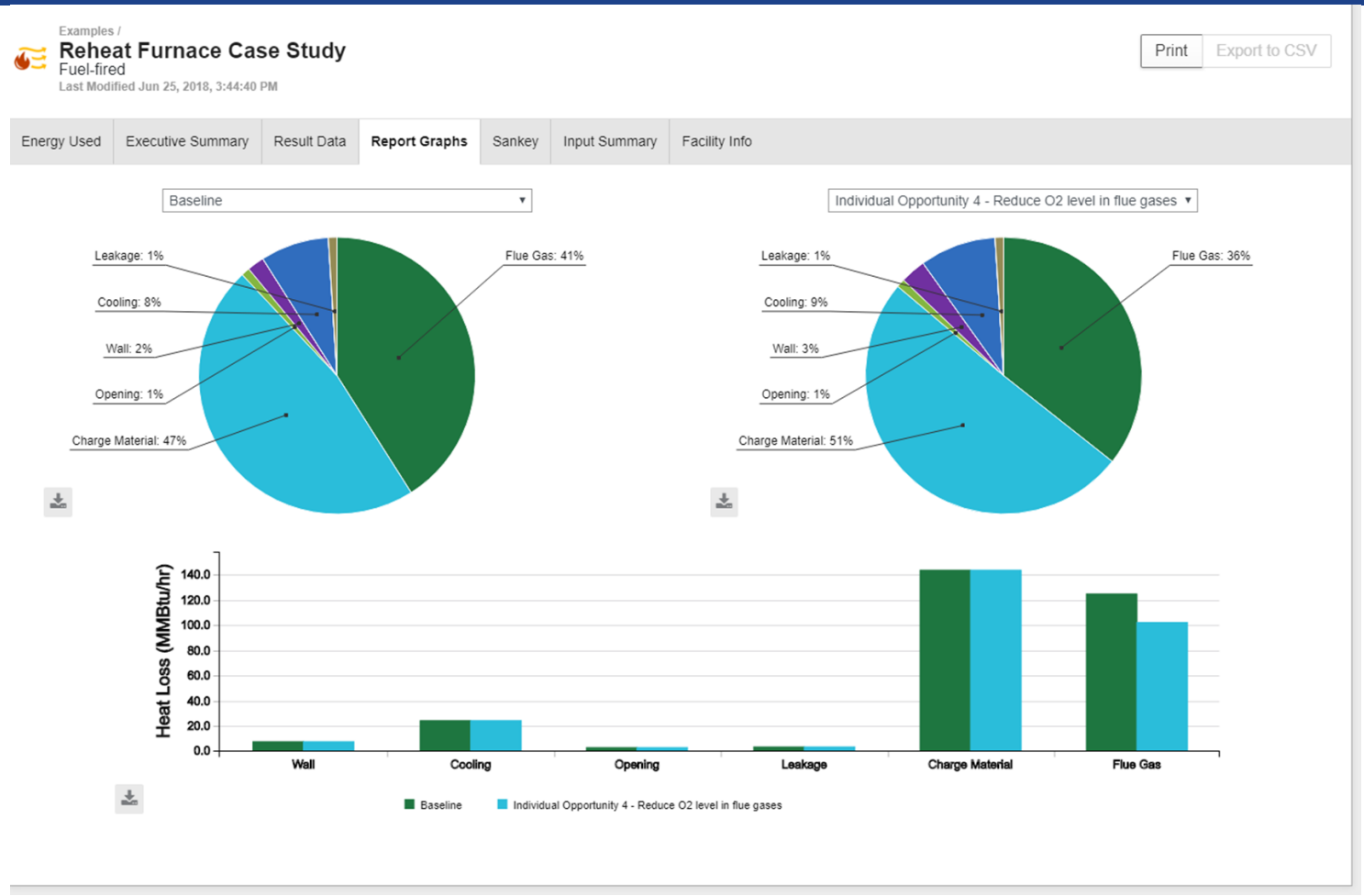


- When in “Assessment” mode, you can add notes in the right panel that will show up in the report to help you identify what you are modeling in this modification

Report



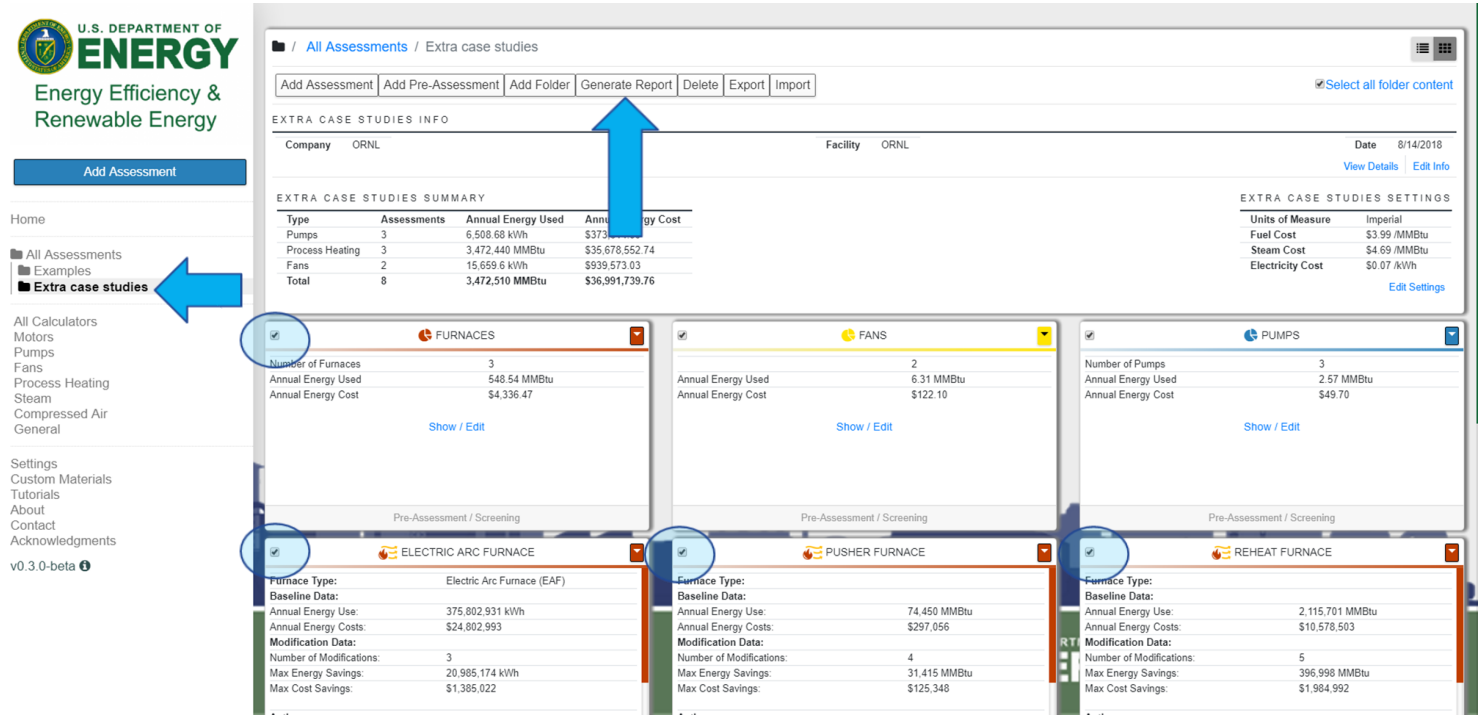
- The Report Tab allows you to access the equipment level report
- There are several tabs with high level and loss level results, graphs, Sankey Diagrams, etc.
- Each graph has an icon to download a .png of the graph
- Clicking Print will let you choose what sections of the report you which to print (or save to .pdf)

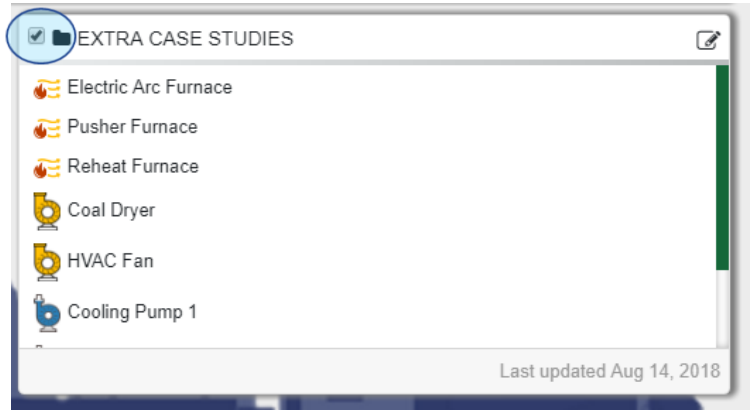
Facility Report

- To generate a facility report, return to “All Assessments”
- Check the folder of the facility you wish to generate a report for
- Click “Generate Report”
- This will generate a page with all the equipment you selected
  - You can mix process heating and pumps
- If you made multiple Modifications, choose which modification you wish to be represented in the roll up
- Click “View More Details to access the rollup

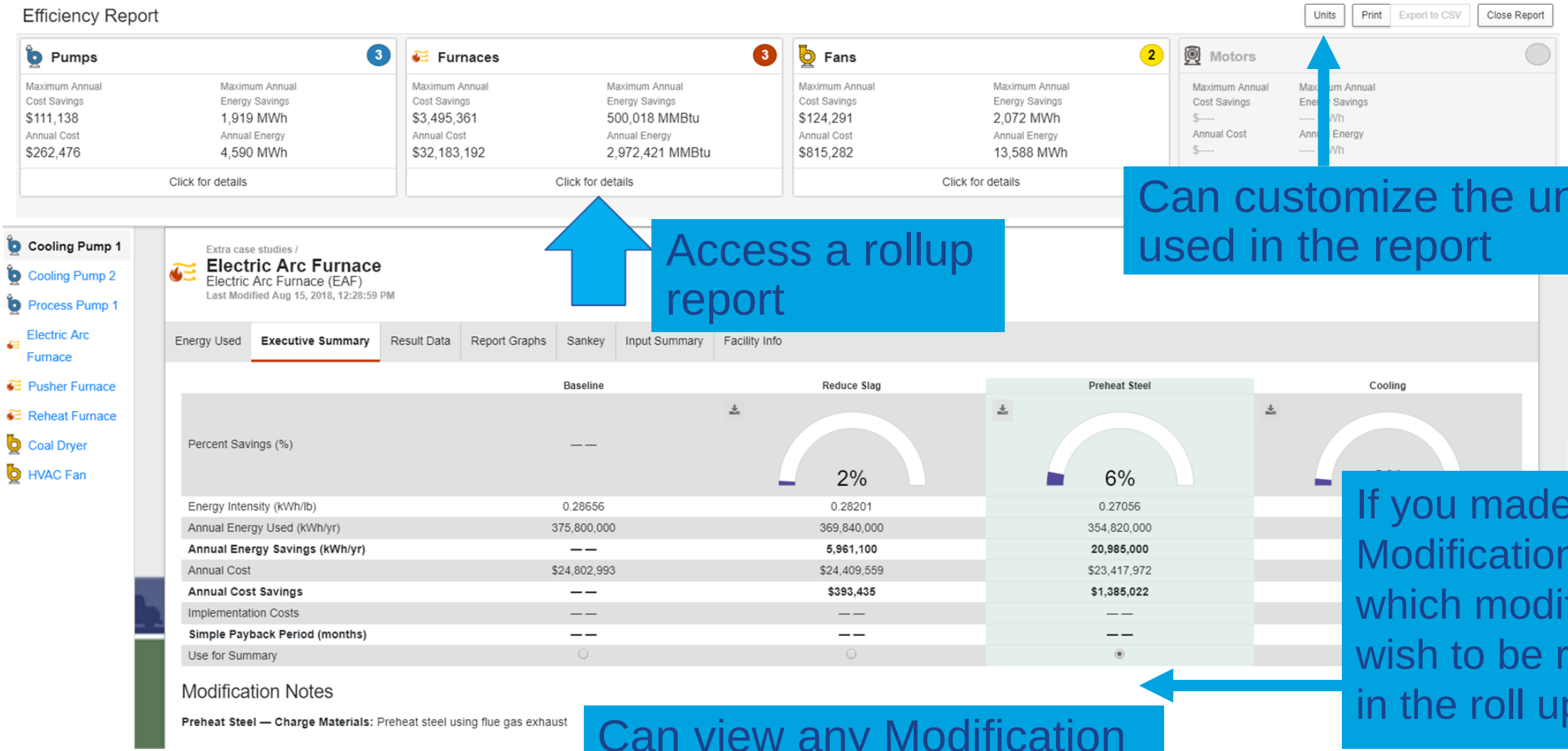
Facility Report

- To generate a facility report, return to “All Assessments”
- Check the folder of the facility you wish to generate a report for
- Or the individual assessments you want in the report
- Click “Generate Report”





Facility Report



Access a rollup report

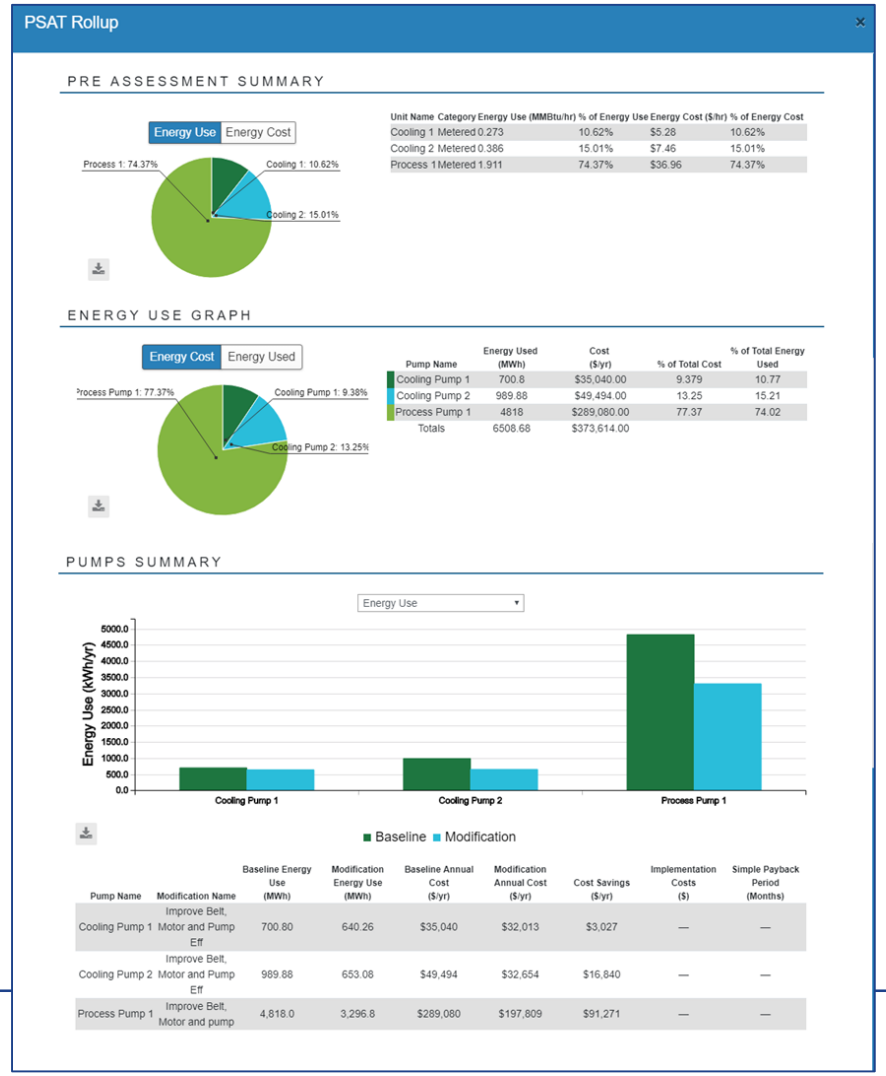
Can customize the units used in the report

If you made multiple Modifications, choose which modification you wish to be represented in the roll up

Can view any Modification Notes you made

Facility Report – Roll up

- Click “View More Details to access the rollup

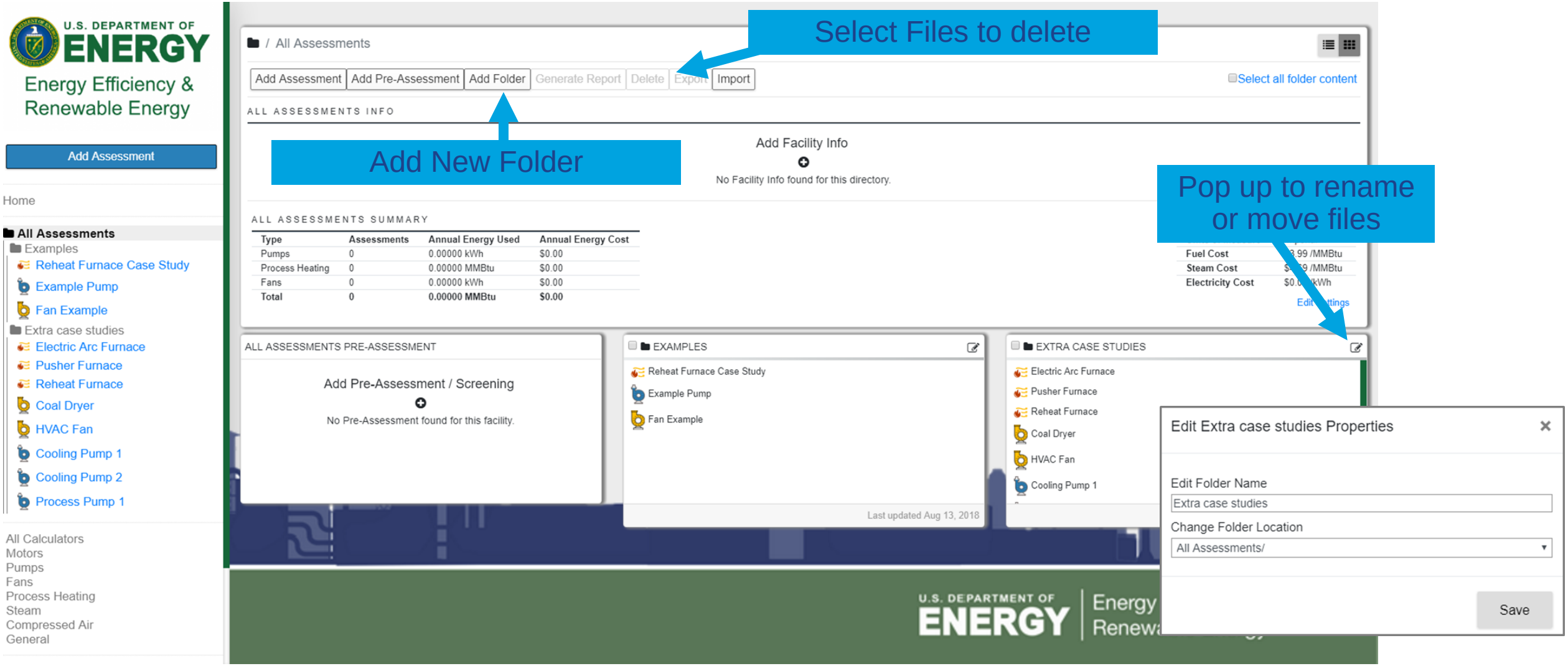


Pre-Assessment

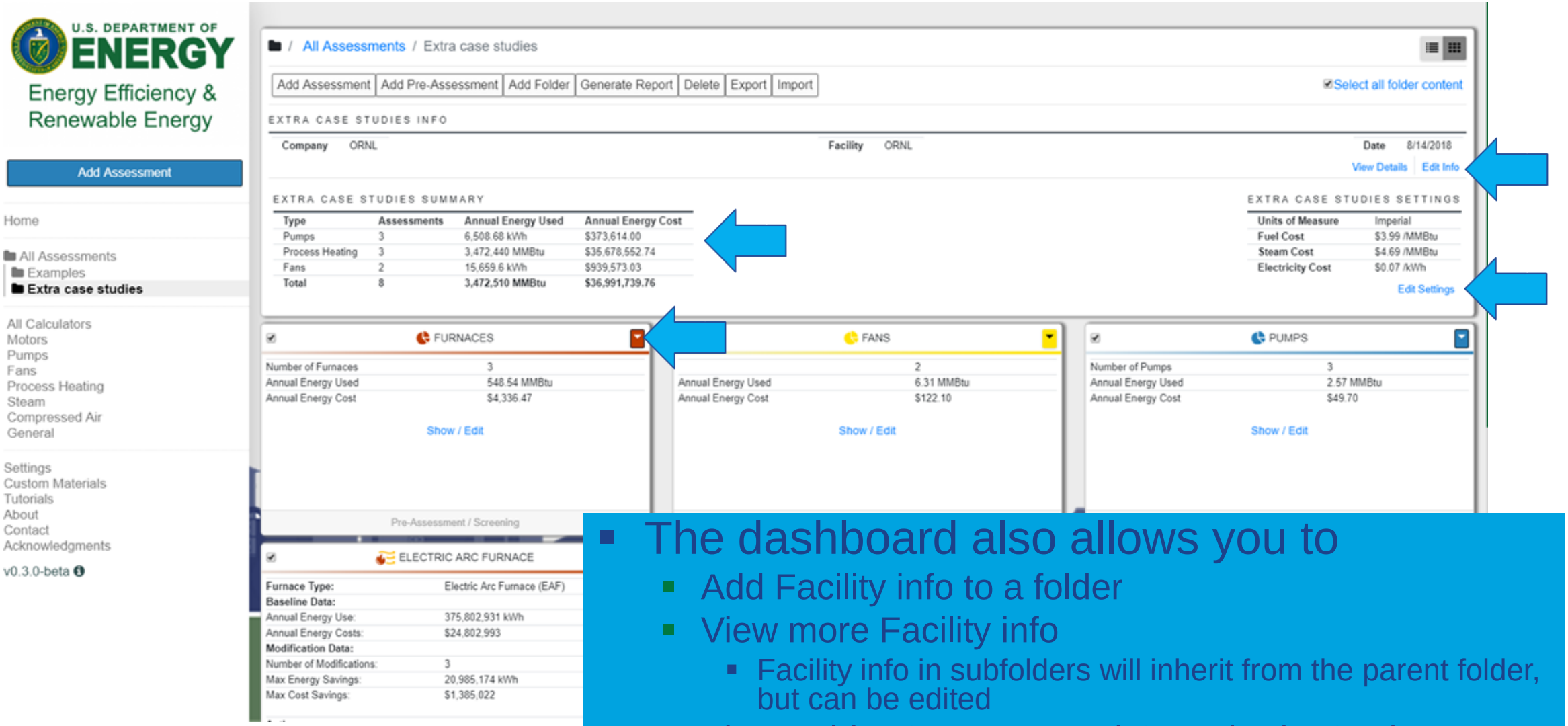
MEASUR Calculated Energy Use/Cost

Summary with Chosen Modifications

All Assessments Dashboard



All Assessments Dashboard

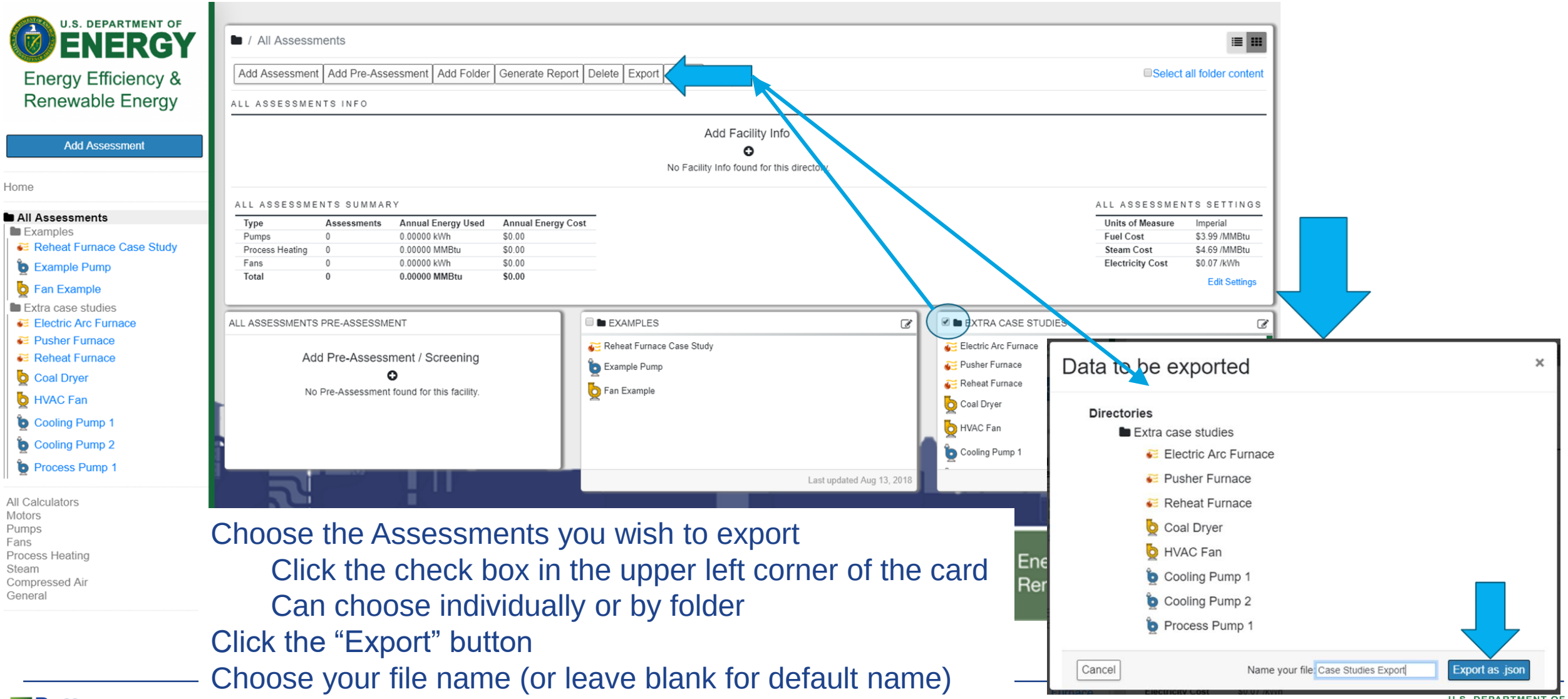


- The dashboard also allows you to
  - Add Facility info to a folder
  - View more Facility info
    - Facility info in subfolders will inherit from the parent folder, but can be edited
  - View Folder Summary and Costs/Units Settings

Exporting: Sending & Backing up Data

- The export function can be used for both
  - Sending your assessments to collogues
  - Backing up your files in a safe place
- Click on “All Assessments” or “View your Assessments”
- Choose the Assessments you wish to export
  - Click the check box in the upper left corner of the card
  - Can choose individually or by folder
- Click the “Export” button
- Click “Export” in the popup

Exporting: Sending & Backing up Data



Choose the Assessments you wish to export

- Click the check box in the upper left corner of the card
- Can choose individually or by folder

Click the “Export” button

Choose your file name (or leave blank for default name)

Click “Export as .json”

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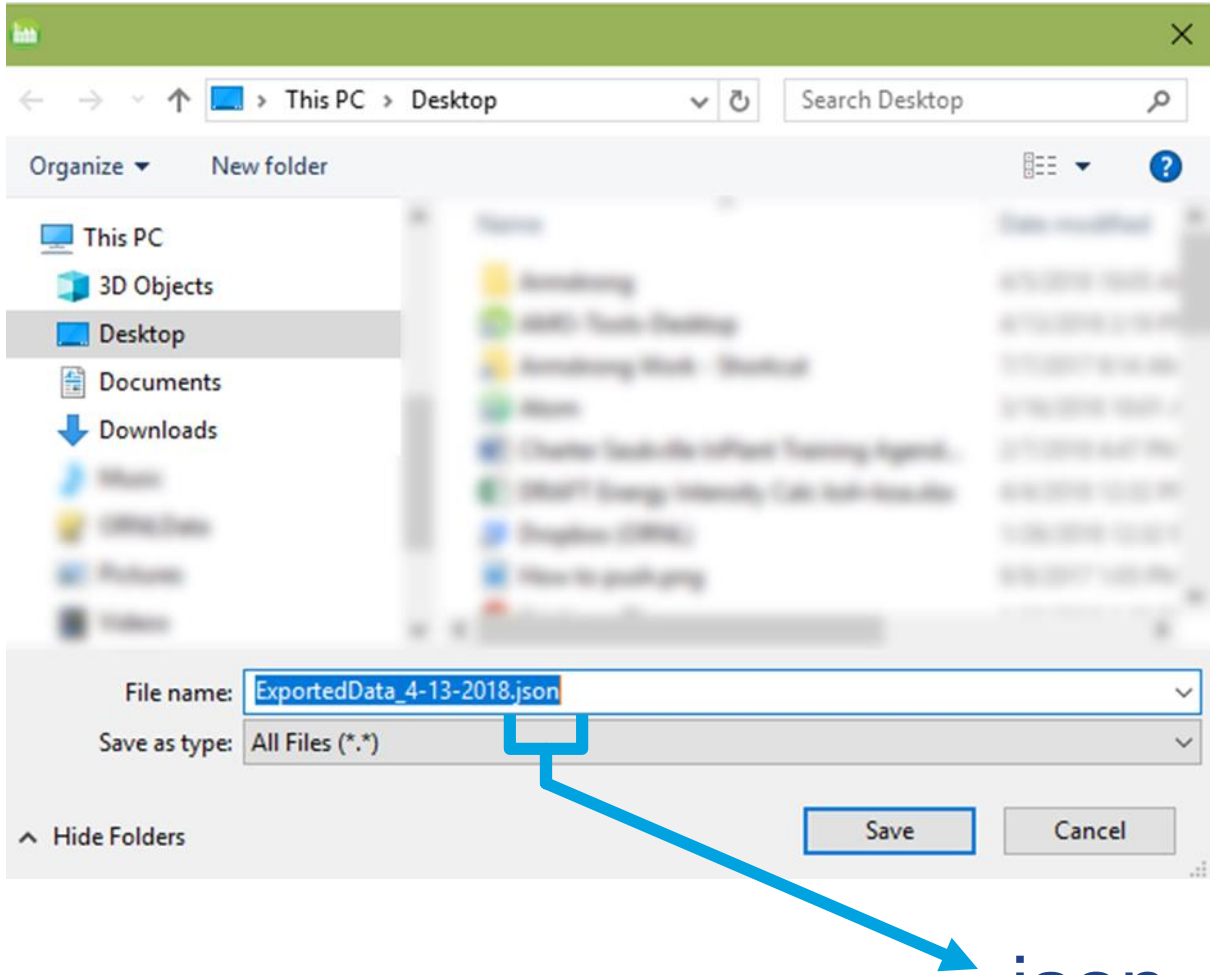
Exporting: Sending & Backing up Data

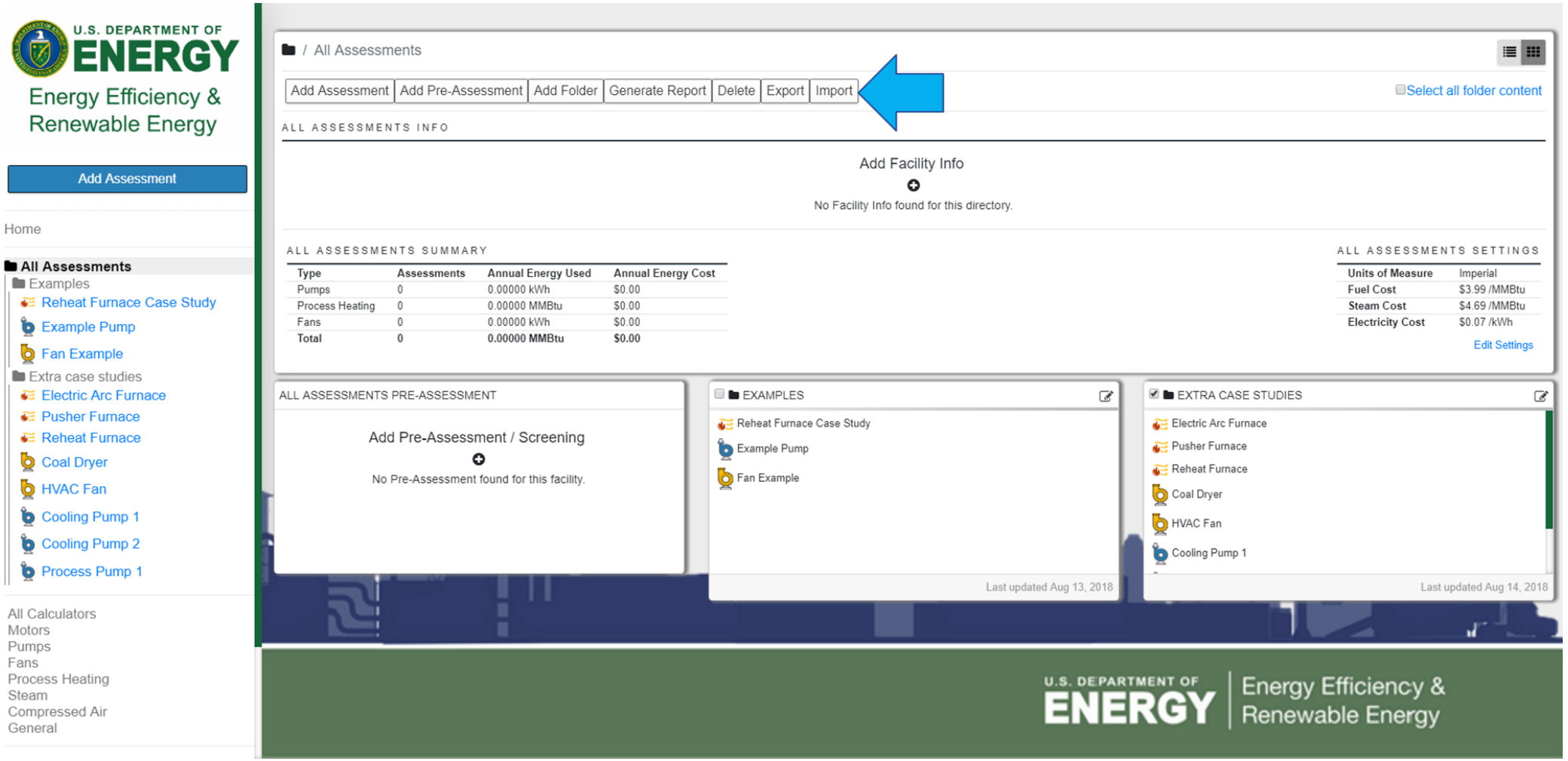


If you rename the file here, be sure to keep the .json at the end

Exporting: Sending & Backing up Data

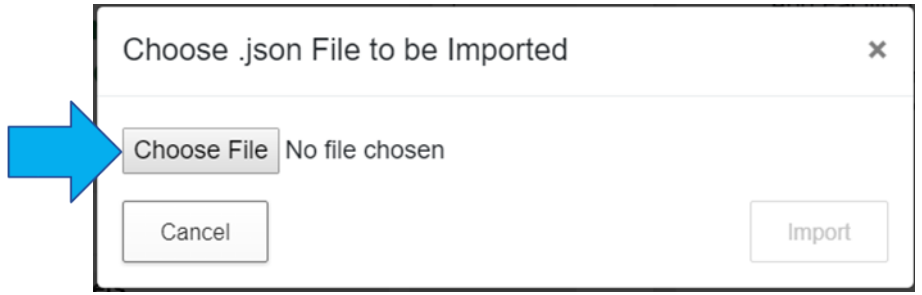
- The import function will add .json files as assessments
- Click on “All Assessments” or “View your Assessments”
- Click “Import” link, then click “Choose File”
- Choose the .json files you wish to import
- Click the “Import” button
- The files should appear in your “All Assessments” folder
- If you get an invalid file type error, rename the file to have .json at the end

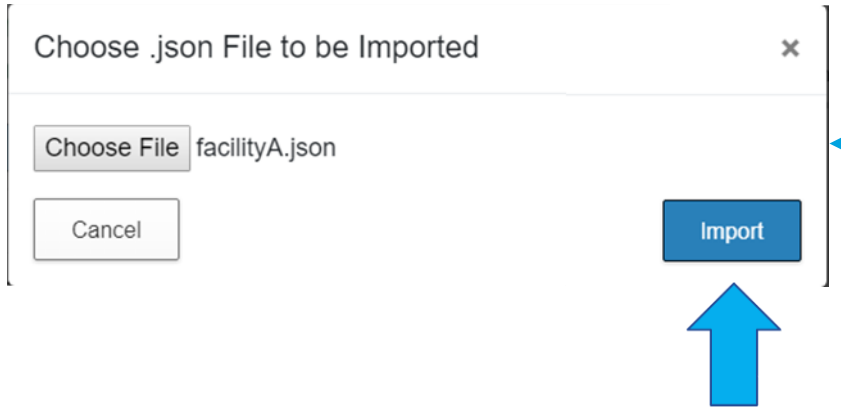
Importing: Sending & Backing up Data

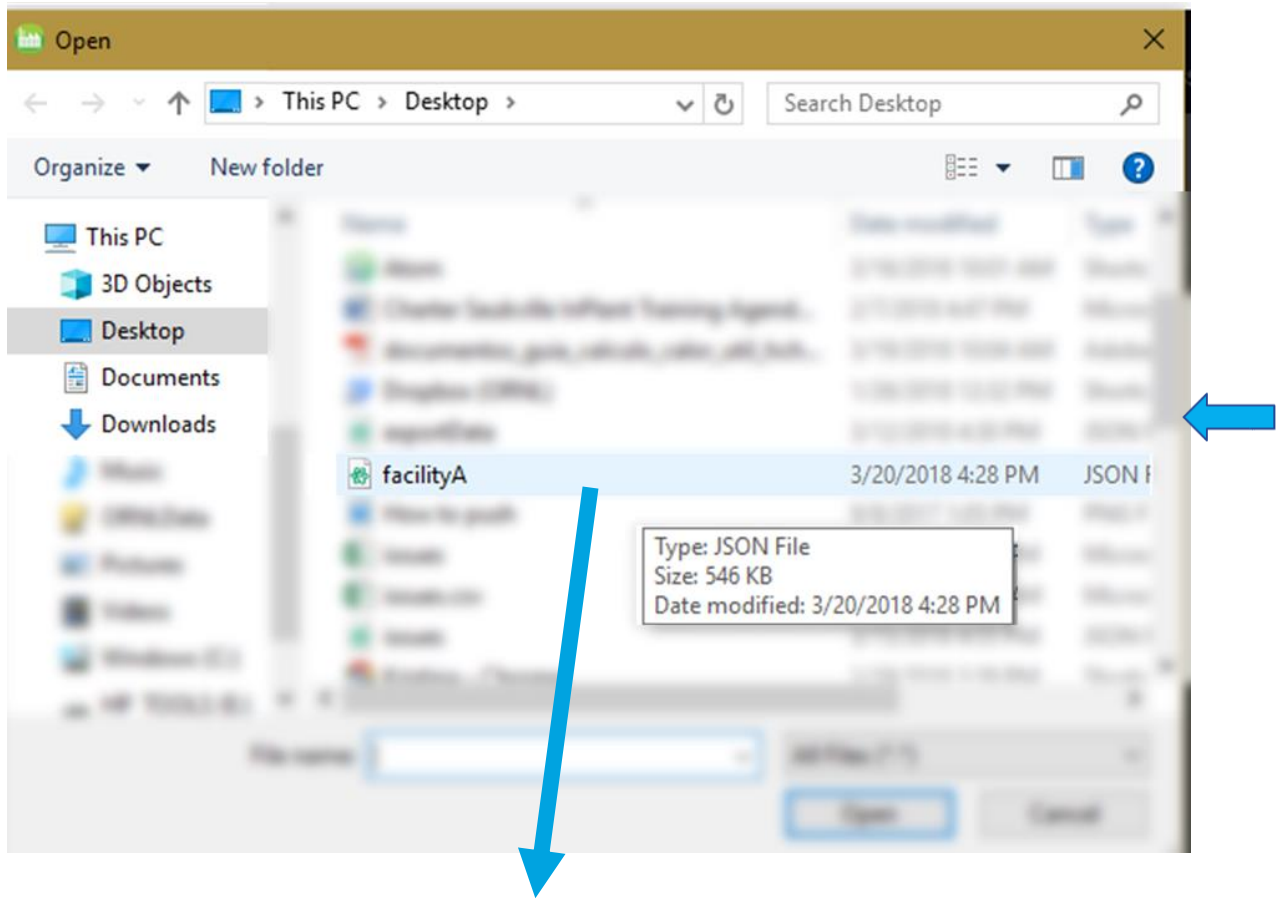


Importing: Sending & Backing up Data

Click “Import” link, then click “Choose File”
Choose the .json files you wish to import
Click the “Import” button

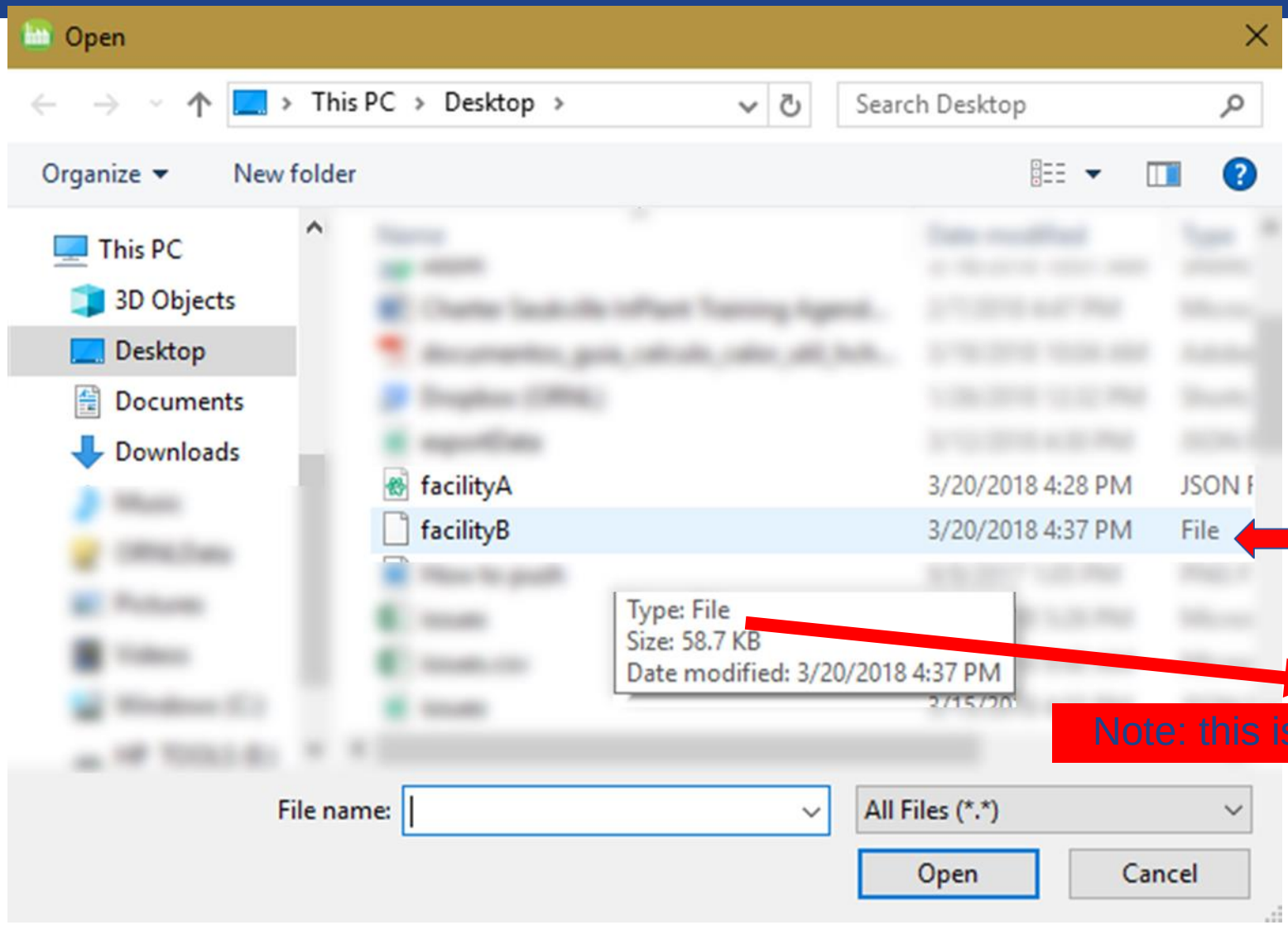






Note: if you hover over the file you wish to import it should say Type: JSON File

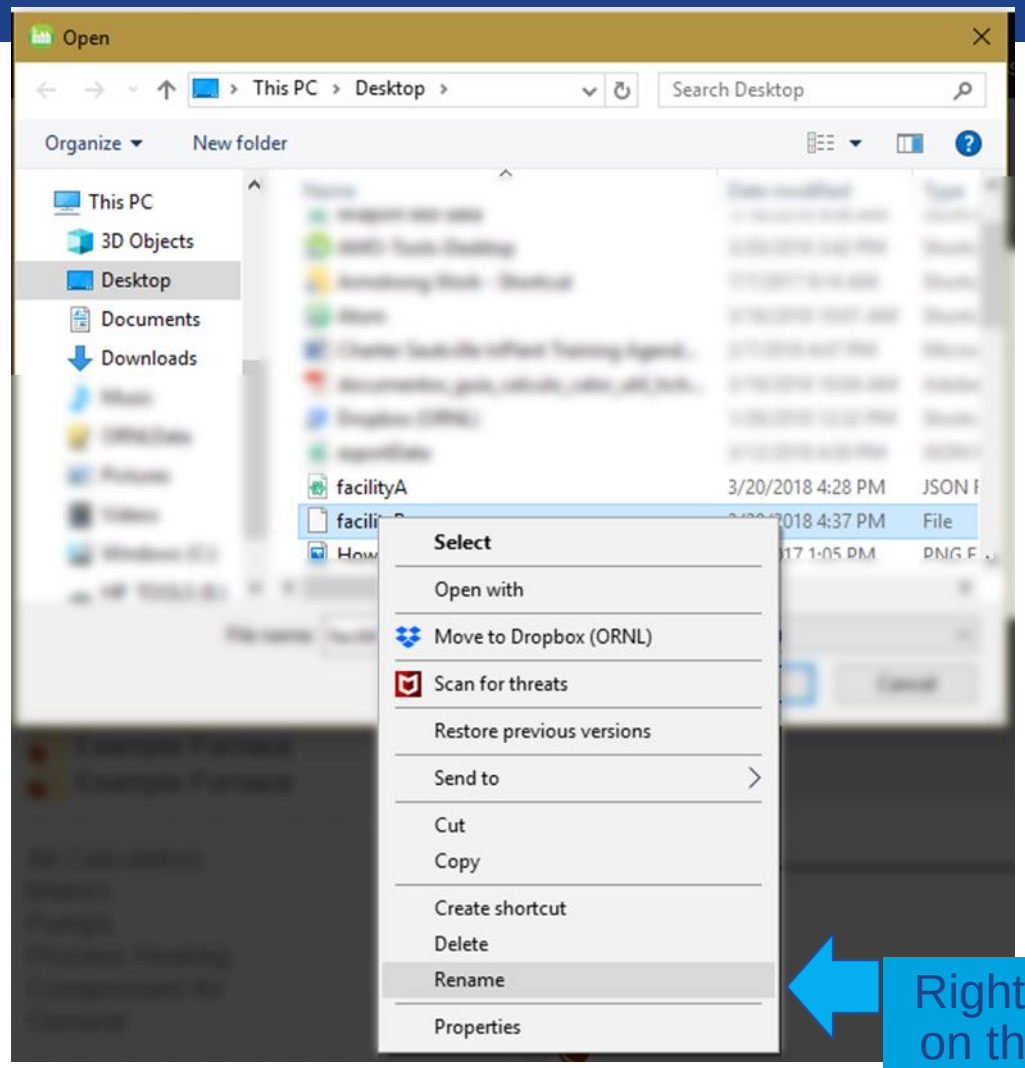
Importing: Invalid File Type Error



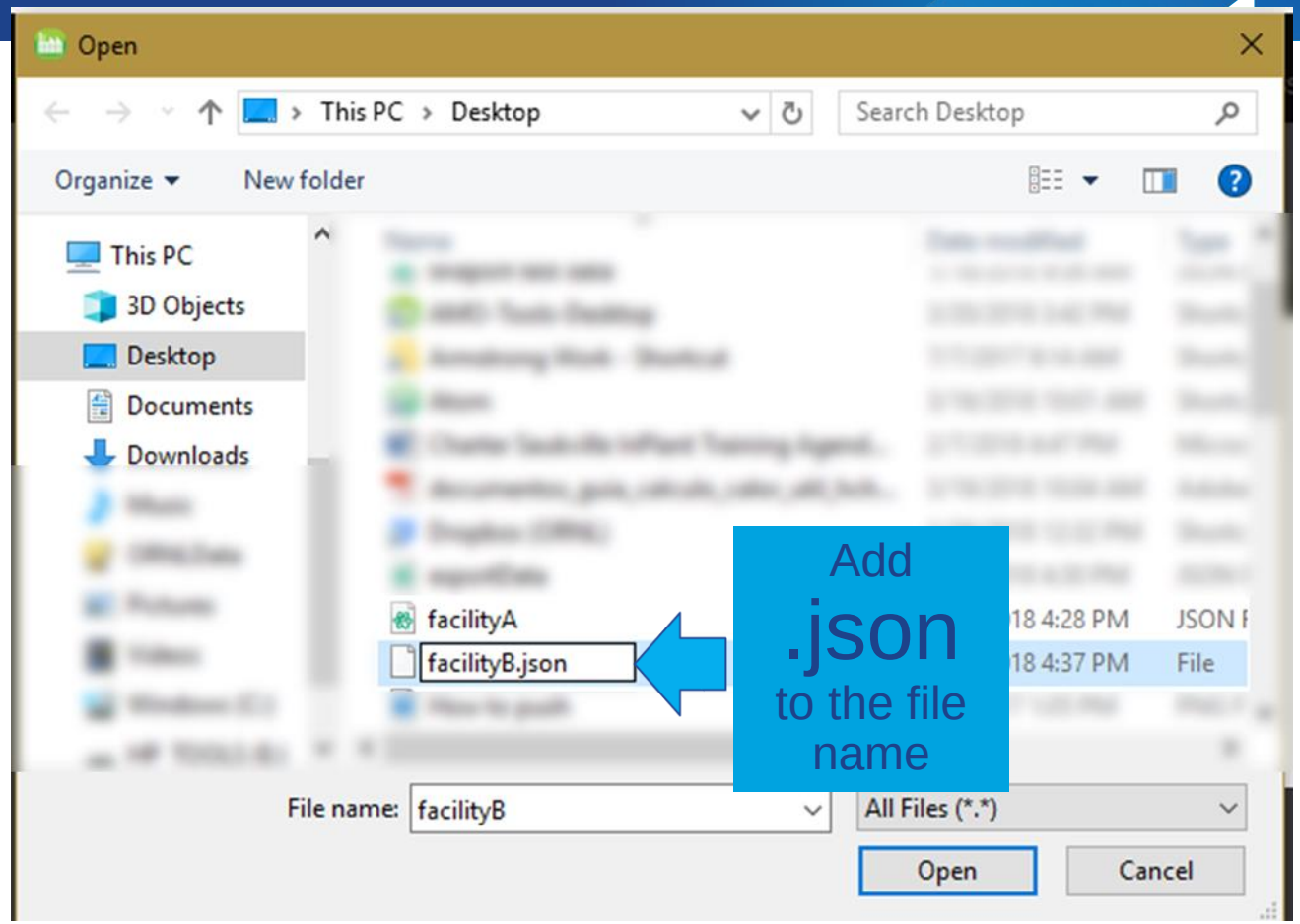
Note: this is not a .json file

If you get an “Invalid File Type” Error…

Importing: Invalid File Type Error



Right click on the file and select “Rename”



Add .json to the file name