

## PTS Registrations – Battery Modules Guidelines

### A. Background

This documentation details the battery-specific information collected when registering a battery system under the Energy Storage Technology type with PTS.

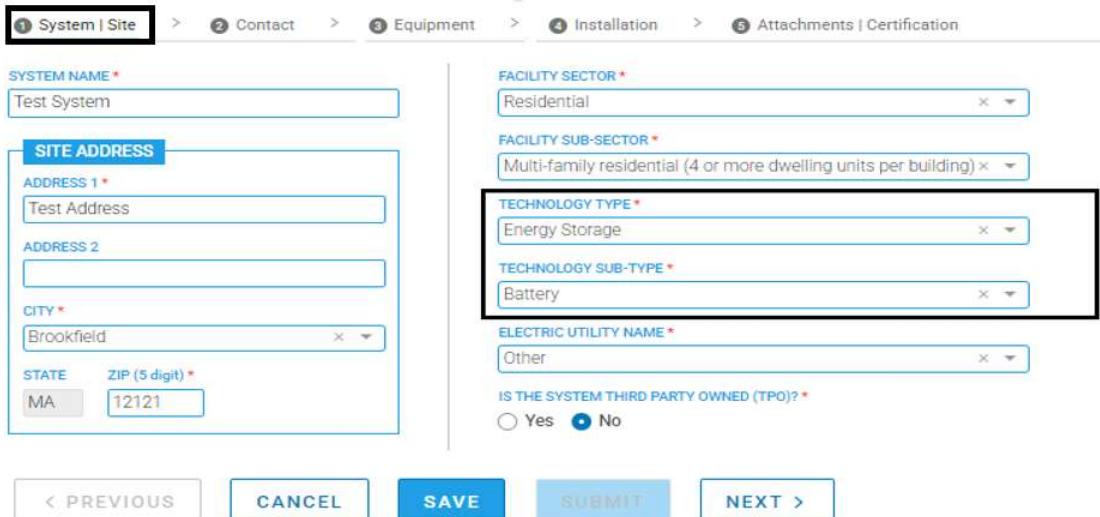
During the registration process, applicants will be asked to provide information about the individual battery and inverter equipment, as well as the system configuration. Please note that ‘battery’ refers to the individual battery equipment, while ‘system’ refers to the configured storage system that may include multiple batteries and inverters.

### B. System | Site

To register a battery system, select ‘Energy Storage’ as the Technology Type and ‘Battery’ as the Technology Sub-Type in Section 1 (System | Site) of the PTS Registration (shown below). Additional details about the system will be entered in Section 3 (Equipment).

#### Register a New System

Test System: ID 152421



The screenshot shows the 'System | Site' section of the registration form. The 'Technology Type' and 'Technology Sub-Type' fields are highlighted with a black border. The 'Technology Type' is set to 'Energy Storage' and the 'Technology Sub-Type' is set to 'Battery'.

**System | Site**

**Test System: ID 152421**

**System Name \***  
Test System

**Site Address**

**Address 1 \***  
Test Address

**Address 2**

**City \***  
Brookfield

**State** MA **ZIP (5 digit) \*** 12121

**Facility Sector \***  
Residential

**Facility Sub-Sector \***  
Multi-family residential (4 or more dwelling units per building)

**Technology Type \***  
Energy Storage

**Technology Sub-Type \***  
Battery

**Electric Utility Name \***  
Other

**Is the System Third Party Owned (TPO)? \***  
 Yes  No

**Buttons:** < PREVIOUS, CANCEL, SAVE, SUBMIT, NEXT >

### C. Battery Equipment

#### 1. General Energy Storage System (ESS) information:

Provide the following information:

- System Configuration (drop-down selection):
  - AC-Coupled
  - DC-Coupled

- Hybrid
- Not Applicable (only choose this option if the system is a standalone ESS)
- Configured ESS Power (kW) (numerical value)
  - This value should reflect the total **ESS system's** actual operating power, including, if applicable, any configuration changes that would result in a value different from the manufacturer-rated output.
- Does the system operate at a derated power? (Yes/No)
  - Select this option if the system has been either manufacturer-limited or programmed to output at a level below its rated specifications.
- Derated System Power (kW) – Only enabled if the above question is answered “Yes”.

<b>SYSTEM CONFIGURATION *</b> <input type="text"/>	<b>DOES THIS SYSTEM OPERATE AT A DERATED POWER? *</b> <input type="radio"/> Yes <input type="radio"/> No
<b>CONFIGURED ESS POWER (kW) *</b> <input type="text"/>	<b>DERATED SYSTEM POWER (kW) *</b> <input type="text"/>

## **2. System Components**

In the Equipment Section, three system components must be entered for the Battery system: Inverter, Meter, and Battery.

Inverters			
QUANTITY	MANUFACTURER	MODEL	ACTIONS

Meters			
QUANTITY	MANUFACTURER	MODEL	ACTIONS

Batteries			
QUANTITY	MANUFACTURER	MODEL	ACTIONS

- **Inverter:** To add new inverters, press the  icon. Multiple inverters per system are allowed. For battery systems with built-in inverters, enter the manufacturer and model information of the battery. Only inverters associated with the battery system should be

registered (i.e., do not register an inverter associated with co-located solar if the inverter is not also shared with the battery).

Inverters			
QUANTITY	MANUFACTURER	MODEL	ACTIONS
			

- Enter the quantity and select an approved manufacturer and model from the drop-down. Max Power Output and Voltage will automatically populate based on the equipment's listed specifications. Press 'Save' to store the changes OR 'Cancel' to leave the form without saving selections.

**Inverters for Test System** 

QUANTITY *	<input type="text"/>
MANUFACTURER *	<input type="text"/> <div style="border: 1px solid #ccc; padding: 5px; margin-top: 5px;"> AltEnergy Power System  APS America  Ascension Tech  AUO </div>
MAX OUTPUT POWER (kW AC)	<input type="text"/>
VOLTAGE (V)	<input type="text"/>
	 

- If manufacturer and/or model are not already listed in the drop-down, select "other" and enter the Manufacturer and/or Model information in the provided text field. Spec sheets should be provided for any equipment entered as "other".

Press 'Save' to store the changes OR 'Cancel' to leave the form without saving selections.

## Inverters for Test System

×
**QUANTITY \***

**MANUFACTURER \***

×
▼
**MODEL \***

×
▼
**MAX OUTPUT POWER (kW AC)**

**VOLTAGE (V)**

SAVE
CANCEL

- Meter:** To add meter equipment, press the  icon. Enter the make and model of the meter recording Battery performance data.
  - If multiple meters are used on site, they must be entered individually, each with its unique serial number.
  - If manufacturer and/or model are not already listed in the drop-down, select “other” and enter the Manufacturer and/or Model information in the provided text field. Spec sheets should be provided for any equipment entered as “other”.
- Battery:** To add battery equipment, press the  icon. Multiple batteries per system are allowed. Enter the batteries’ make and model. If manufacturer and/or model are not already listed in the drop-down, select “other” and enter the Manufacturer and/or Model information in the provided text field. Spec sheets should be provided for any equipment entered as “other”. If entering as “other”, the fields in section a. below should still be completed.

## Batteries for Test System

**QUANTITY \***

**MANUFACTURER \***

**MODEL \***

a. Provide input for the following questions:

DOES THE BATTERY HAVE A BUILT-IN INVERTER? \*

Yes  No

IS THE BATTERY LOCATED IN FRONT OF THE INVERTER? \*

Yes  No

INDIVIDUAL BATTERY ENERGY (kWh) \*

INDIVIDUAL BATTERY POWER (kW) \*

- Does the battery have a built-in inverter? (Yes/No) (required)
- Individual Battery Energy (kWh) (numerical value) (required)
  - This field displays the Battery Energy Storage Capacity (kWh) per battery
- Individual Battery Power (kW) (numerical value) (required)
  - This field displays the Battery Power (kW) per battery
  - Registrants should enter the Maximum Continuous Output of the battery, or Nominal Rating, in this section

### 3. System Details:

## Register a New System

test: ID 152421

1 System | Site > 2 Contact > 3 Equipment > 4 Installation > 5 Attachments | Certification

System Details

SYSTEM ENERGY STORAGE CAPACITY (kWh)
SYSTEM ENERGY STORAGE POWER (kW)
ESS ESTIMATED STORAGE DURATION (hr)

This read-only section displays the Energy Storage system summary, based on the information provided in the Equipment and ESS sections above. Before submitting the Registration, check

these values to ensure they align with expectations. If not, there may be a data entry issue with one of the fields:

- System Energy Storage Capacity (kWh)
  - This field is calculated by the multiplication of the battery quantity and the individual battery energy (kWh) in the Battery equipment section

## Batteries for test

QUANTITY *	MANUFACTURER *	DOES THE BATTERY HAVE A BUILT-IN INVERTER? *
<input type="text"/>	<input type="text"/>	<input type="radio"/> Yes <input type="radio"/> No
MODEL *		IS THE BATTERY LOCATED IN FRONT OF THE INVERTER? *
<input type="text"/>		<input type="radio"/> Yes <input type="radio"/> No
		INDIVIDUAL BATTERY ENERGY (kWh) *
		<input type="text"/>
		INDIVIDUAL BATTERY POWER (kW) *
		<input type="text"/>

- System Energy Storage Power (kW)
  - This field displays the lowest number of the three values below:
    - Total Inverter Power
    - Configured ESS Power
    - Derated System Power
- ESS Estimated Storage Duration (hr)
  - This field is calculated by dividing System Energy Storage Capacity (kWh) by System Energy Storage Power (kW)

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