

# Capture additional DER information

DRS Meeting  
July 16, 2018

- Additional DRHUB location fields for generators and batteries
  - Enable multiple generators entry
  - Enable battery details entry
- Why make this change?
  - In lieu of increased focus on DER, proposed additional information will provide transparency in DER participating in DR;
  - Increase data accuracy for reporting

Proposed DRHUB change will be effective in mid October.  
Proposed fields are planned to be required.

- Allow more than 1 generator (limit is 10)
- Max Output (kW) of each generator will be summed and put into the Load Reduction: Generator field.
- New fields in generator attributes section:
  - Nameplate (kW)
  - EIA 860 Plant Code
  - EIA 860 Generator ID
  - Non-Retail BTMG (checkbox)
  - Note

- Create a new Battery Section with attributes similar to generator section
- New fields in battery attributes section:
  - Max Output (kW) - this field rolls up to Batteries (kW) in the Load Reduction Method section;
  - Battery Capacity (kW 1C) - a 1C rate means that the discharge current will discharge the entire battery in 1 hour;
  - Vintage - the year the battery was manufactured;
  - Chemistry: Lithium-Ion, Lithium-Air, Lithium-Metal, Lithium-Sulfur, Lead Acid, Zinc-Ion, Sodium-Ion, Sodium-Metal Halide, Magnesium-Ion, Magnesium-Lithium Hybrid, Zinc-Manganese Oxide, Vanadium-Redox Flow, Zinc-Polyiodide Flow, Organic Aqueous Flow;
  - Type: Electric Vehicle, PV system, stand alone;
  - Note

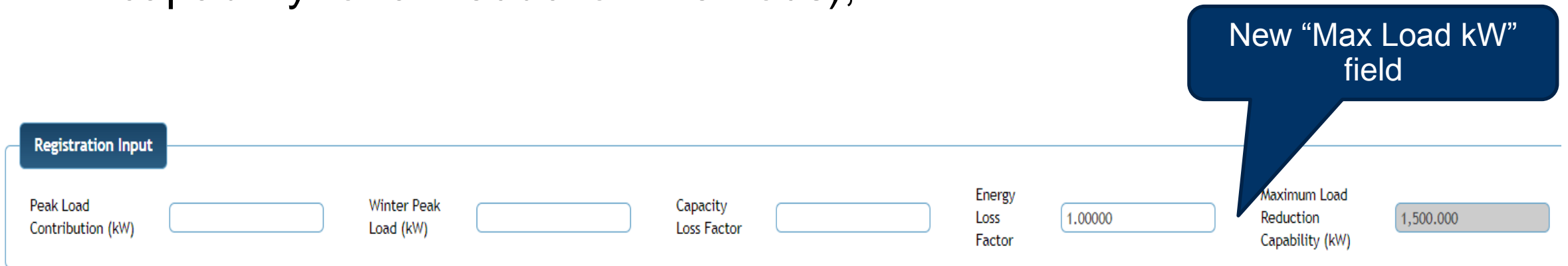
- Max Output field will capture battery/generator kW capacity for DR.
- Generator Max Output kW should be  $\leq$  Nameplate kW;
- Battery total Max Output kW should be  $\leq$  Battery Capacity kW;
- If there are other load reduction methods used at the location in addition to generator or battery then generator/battery Max Output field should reflect the expected load after the other load reduction methods;
- Example:

Location's load = 8MW  
Generator Nameplate = 10MW  
HVAC reduction capability = 1MW



Generator attribute section on DRHUB:  
Max Output kW = 7MW (8-1)  
Nameplate kW = 10MW

- Add new field "Max Load (kW)" under the Registration Input section;
- Max Load will reflect location's highest annual monthly billed demand;
- Max Load kW  $\geq$  Max Load Reduction Capability (sum of reduction capability for all reduction methods);



The screenshot shows a "Registration Input" form with several fields. A blue callout bubble points to a new field labeled "New 'Max Load kW' field". The fields and their values are:

Field Name	Value
Peak Load Contribution (kW)	[Empty]
Winter Peak Load (kW)	[Empty]
Capacity Loss Factor	[Empty]
Energy Loss Factor	1.00000
Maximum Load Reduction Capability (kW)	1,500.000

If CSP enters Max Load < Max Load Reduction – they will get a pop-up message that Load can't exceed Max Load Reduction