Common SILVER Errors & Solutions

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# General Errors

|  |  |
| --- | --- |
| Error | Solution |
| AttributeError: 'ConcreteModel' object has no attribute 'power\_d0' | This error occurs sometimes when dr\_shedding is set to False in the minpower configuration file. Lia is not aware of a solution. |

# Variable Renewable Energy Generators

There must be at least one VRE generator in the scenario, otherwise SILVER throws an error. If you are running a scenario without VRE, just add a VRE generator with zero capacity in the VRE sheet of the model inputs spreadsheet.

## VRE-Related Errors

|  |  |
| --- | --- |
| Error | Solution |
| index 0 is out of bounds for axis 0 with size 0 | The scenario has no VRE generators. Add a VRE generator with zero capacity to the VRE sheet of the model input spreadsheet. |

# Storage

When creating a storage device in the storage sheet of the model input spreadsheet, ensure that you:

1. Set the storage content column variable to a value (0 is fine).
2. Set the pumprampmax column variable to a value (1 is fine; this value is used only to flag that the device is storage and not a generator).
3. Set the storage pumping/generating efficiency value if you are not using the default PHS values. This task can be accomplished one of two ways:
   1. Change the PHS efficiency value in the site independent sheet of the model input spreadsheet to the desired value OR
   2. Go into the Storage class itself in the generators.py file and change ‘PHS’ in the following lines to the type of storage device you are using. The key should match one of the entries on the site independent sheet.
      1. ﻿ self.n\_pumping = np.sqrt(self.site\_independent[3]['PHS'])
      2. self.n\_generating = np.sqrt(self.site\_independent[3]['PHS'])

## Storage-Related Errors

|  |  |
| --- | --- |
| Error | Solution |
| status = ok unknown during day ahead UC problem | Make sure the storage content variable is set to a value in the storage sheet of the model inputs xlsx file. |
| Unexpected keyword “storagecapacitymax” | Make sure the pumprampmax variable is set to a value in the storage sheet of the model inputs xlsx file. |
| Energy\_Storage results csv shows storage content as 0 at every time step. | These issues are related. It is most likely something to do with the pumping/generating efficiencies, but Lia does not understand this yet and will update this document with more information when she does. |
| Storage devices discharge more than they charge. |