Problem With StorageController

From OpenDSSWiki

Question

I have been working with storage and storagecontroller lately. I can get the storagecontroller to work based on time but so far can not get it to work with peakshave. Can you look at my file and see if I have something wrong (or missing)?

I have a PV site in parallel with a battery.

The controller is monitoring the source of the feeder. (One question I have is the kWTarget, is this per phase / or total of all 3 phases). What else am I missing?

```
new generator.pv_gen phases=3 bus1=PV_1 kv=12.47 kw=1400.0 pf=1.0 model=1 conn=wye yearly=1 new storage.battery phases=3 bus1=PV_2 kv=12.47 kwrated=1000 conn=wye kwhrated=4000 debugtranew StorageController.sc_battery element=line.7532334127NJ0932-ABC terminal=2 ModeDischarge=Peak
```

Answer

August 12, 2010

I just ran the script below developed for an EPRI smart grid demo and it worked. So I think the StorageController is working.

The default mode for the storagecontroller is PEAKSHAVE. kWTarget = total kW in the monitored element. Don't think PFTarget is doing anything yet as the kvar control goes unstable.

With this script, you can do "show event' after the solution and you should see where the storagecontroller was trying to work.

```
Compile C:Master.DSS
Set maxcontroliter=20

! ***** ADD STORAGE, SET TO DISCHARGE AND SOLVE *****************

redirect CES.DSS    ! this defines all the storage units
! define storage controller

New StorageController.CESmain element=line.568_4921721 terminal=1 kWTarget=7000 PFTarget=0.98 %rate

reventlog=y

New monitor.Store Storage.jo0211000173 1 mode=1 ppolar=no
```

```
New monitor.StoreVars Storage.jo0211000173 1 mode=3
solve
redirect annualscript.dss ! this runs an abbreviated yearly solution
```

Roger Dugan

Epilogue

Note the definition of the StorageController:

```
new StorageController.sc_battery element=line.7532334127NJ0932-ABC terminal=2 ...
```

The StorageController is direction dependent in Peakshave mode. Changing to "Terminal=1" fixed the problem.

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