## Modeling behind the inverter

GMDM Issue #9

The GMDM IOP model included a BatteryUnit, PhotovoltaicUnit, and WindPowerElectronicsUnit behind the same residential-sized inverter, i.e., behind a single PowerElectronicsConnection. While theoretically possible, none of the known power flow solvers handle this. PNNL and EPRI both implemented a “virtual battery” concept that might be considered for behind-the-meter or behind-the-inverter resources.

Diagram

Description automatically generated

(See also the following references

* <https://doi.org/10.1109/PESGM40551.2019.8974107>
* <https://doi.org/10.1109/JPROC.2020.2986378>)