Notes and action steps on Residential data file from OnLocation:

* Device names “Ground Source Heat Pumps(cool)” and “Natural Gas Heat Pumps(cool)” need to be adjusted for the missing space.
* “Retirement fraction” sheet has an extra space at the end
* Some sheets use GS to denote natural gas, needs to be changed to NG
* Average Efficiencies sheet uses an alternate end use name; that same column contains leading spaces that need to be removed, as does the EQPCLASS column (now done in R script)
* Solar water heaters use both electricity and solar energy. The NEMS documentation says its 50-50.
* Technology options sheet issues:
  + Space heating
    - ELEC\_HP1, Census division 1, last year
    - ELEC\_HP2, Census division 1, last year

Verification:

* End-use energy consumption levels match AEO2017 No CPP Reference case from the browser, except for space cooling (known issues) and MELs (maybe known issues --- we’re a little high)