README.txt

This is a comprehensive guide to the Residential Heatmap program. There are several directories, CSVs, and python files to be aware of when running this program as well as several steps to go through.

The first step is to match specific loads to utilities as well as populate the rate database. Fill the directory “LoadProfiles” with OpenEI CSV files that you want rates from. Run Utility:City.py and this will output a csv fil that maps each utility to city, with their corresponding zip codes. Next run UpdateRates.py. This is a simplified file that takes all the functions in Genability.py and runs them. Running UpdateRates.py will populate the Rates folder will individual csv files of all rates that are needed to populate the heatmap. If the rates already exists, all it will do is update the rates.

The next step is to perform the calculations. Fill LoadProfiles will OpenEI CSVs of all the Load profiles that you want to run. Then run NetLoad.py. This file corresponds with LoadProfile.py, PVWatts.py, Dispatch.py, and Parser.py to parse each of the load profiles in LoadProfiles and rates in Rates needed and perform solar and storage analysis. This is then outputted as a csv file titled “finalcalculation.csv” and placed in the Outputs folder.

Finally there is the heatmap generation. This is a simple step as all that needs to be run is Heatmap.py. Heatmap.py parses the “finalcalculation.csv” and selects the specific data needed to be plotted and outputs that as a file entitled “Heatmap.csv”