

Assignment 1 - You Wu

Test if the function works.

```
PJM onpeak 2018A
hours: 4080
PJM offpeak 2018A
hours: 4680
PJM flat 2018A
hours: 8760
PJM 2x16H 2018A
hours: 1760
PJM 7x8 2018A
hours: 2920
PJM onpeak 2018Q2
hours: 1024
PJM offpeak 2018Q2
hours: 1160
PJM flat 2018Q2
hours: 2184
PJM 2x16H 2018Q2
hours: 432
PJM 7x8 2018Q2
hours: 728
PJM onpeak 2018Mar
hours: 352
PJM offpeak 2018Mar
hours: 391
PJM flat 2018Mar
hours: 743
PJM 2x16H 2018Mar
hours: 144
PJM 7x8 2018Mar
hours: 247
PJM onpeak 2018-2-3
hours: 0
PJM offpeak 2018-2-3
hours: 24
PJM flat 2018-2-3
hours: 24
PJM 2x16H 2018-2-3
hours: 16
PJM 7x8 2018-2-3
hours: 8
```

get_hours(iso, peak_type, period) function works well.

Test with EnergyGPS data.

CAISO flat 2023Jan
hours: 744
CAISO onpeak 2023Jan
hours: 400
CAISO offpeak 2023Jan
hours: 344
CAISO flat 2023Feb
hours: 672
CAISO onpeak 2023Feb
hours: 384
CAISO offpeak 2023Feb
hours: 288
CAISO flat 2023Mar
hours: 743
CAISO onpeak 2023Mar
hours: 432
CAISO offpeak 2023Mar
hours: 311
CAISO flat 2023Apr
hours: 720
CAISO onpeak 2023Apr
hours: 400
CAISO offpeak 2023Apr
hours: 320
CAISO flat 2023May
hours: 744
CAISO onpeak 2023May
hours: 416
CAISO offpeak 2023May
hours: 328
CAISO flat 2023Jun
hours: 720
CAISO onpeak 2023Jun
hours: 416
CAISO offpeak 2023Jun
hours: 304
CAISO flat 2023Jul
hours: 744
CAISO onpeak 2023Jul
hours: 400
CAISO offpeak 2023Jul
hours: 344
CAISO flat 2023Aug
hours: 744

CAISO onpeak 2023Aug
hours: 432
CAISO offpeak 2023Aug
hours: 312
CAISO flat 2023Sep
hours: 720
CAISO onpeak 2023Sep
hours: 400
CAISO offpeak 2023Sep
hours: 320
CAISO flat 2023Oct
hours: 744
CAISO onpeak 2023Oct
hours: 416
CAISO offpeak 2023Oct
hours: 328
CAISO flat 2023Nov
hours: 721
CAISO onpeak 2023Nov
hours: 400
CAISO offpeak 2023Nov
hours: 321
CAISO flat 2023Dec
hours: 744
CAISO onpeak 2023Dec
hours: 400
CAISO offpeak 2023Dec
hours: 344

Results match the EnergyGPS data.

Test consistency of results.

ERCOT offpeak 2020A
annually hours: 4672
total quarterly hours: 4672
ERCOT offpeak 2020Q1
quarterly hours: 1159
total monthly hours: 1159
ERCOT offpeak 2020Q2
quarterly hours: 1160
total monthly hours: 1160
ERCOT offpeak 2020Q3
quarterly hours: 1168
total monthly hours: 1168
ERCOT offpeak 2020Q4
quarterly hours: 1185
total monthly hours: 1185

ERCOT offpeak 2020Jan
monthly hours: 392
total daily hours: 392
ERCOT offpeak 2020Feb
monthly hours: 376
total daily hours: 376
ERCOT offpeak 2020Mar
monthly hours: 391
total daily hours: 391
ERCOT offpeak 2020Apr
monthly hours: 368
total daily hours: 368
ERCOT offpeak 2020May
monthly hours: 424
total daily hours: 424
ERCOT offpeak 2020Jun
monthly hours: 368
total daily hours: 368
ERCOT offpeak 2020Jul
monthly hours: 376
total daily hours: 376
ERCOT offpeak 2020Aug
monthly hours: 408
total daily hours: 408
ERCOT offpeak 2020Sep
monthly hours: 384
total daily hours: 384
ERCOT offpeak 2020Oct
monthly hours: 392
total daily hours: 392
ERCOT offpeak 2020Nov
monthly hours: 401
total daily hours: 401
ERCOT offpeak 2020Dec
monthly hours: 392
total daily hours: 392

Results are consistent.