OU demand multi-timescale forecasting

## Long term

One year ahead, 1 month interval

Obj: Predict yearly maximum power demand.

Target: Decide next year power contract plan

## Middle term

One month ahead, 1 week interval

Obj: Predict monthly maximum power demand, coarse grain energy management schedule.

Target: Provide monthly statistic energy management plan

## Semi-middle term

One week ahead, 1day interval

Obj: Predict weekly maximum power demand, semi- coarse grain energy management schedule.

Target: Provide weekly statistic energy management plan

## Short term

One day ahead, 30 min interval

Obj: Predict daily power usage, fine grain energy management schedule.

Target: Provide fine energy usage, scheduling battery, PV, HVAC operation (1 day ahead scheduling)

Model inputs:

314 channels, 105215 steps, 30min interval

Model outputs:

* Short term: 314 channels 1 hour ahead of power usage
* Semi-middle term: 314 channels weekly power usage peak
* Middle term: 314 channels monthly power usage peak
* Long term: 314 channels yearly power usage peak