Meeting Notes for 2/25/2016

Topic Today: Wind Farm intermittency and what it means for campus

* Campus load, generation and wind profile (Described in graph)
  + Useful information from graph
    - Few times when our campus generation exceeds consumption
    - Majority of generation is from gas turbines
      * Coal used in winter only
      * Gas is “in the money” right now
    - Energy output is sinusoidal, varies during the day
    - Electricity use is higher in the summer
      * Import limit makes peak electricity expensive
      * Demand charge: Notified days in advance
        + Last year, 1 MW at peak demand saved $45,000
  + Grid upgrade: Will be able to Import 90 MW instead of 60
* Wind energy is highly variable
  + Fastest in the winter, and at night
  + Each day is different
    - December/January highest in generation
      * Campus usually buys the least electricity in these months
      * Wind energy likely would make us generate more than we need
  + Risks different based on how much we buy
    - Smaller amount in PPA is a smaller financial risk
    - Increasing the PPA amount increase the amount of financial risk
* Solar PPA would better overlap with our energy use profile
  + Peak on hot, sunny days
  + Generation during daytime