**Potential Model Equations (WIP)**

**Load Modeling:**

* **L(t,c)=β0​+β1​⋅H(t,c)+β2​⋅U(t,c)+β3​⋅W(t)+β4​⋅X(t,c)**
* **L(t, c):** Projected load at time t for building class c.
* **β0​:** Intercept (baseline load when all other factors are zero).
* **H(t, c):** Historical average load at time t for building class c.
* **U(t, c):** Current usage trend for building class c.
* **W(t):** Weather data at time t (such as temperature, humidity, etc.).
* **X(t, c):** Any additional features that may influence load, e.g:
  + Day of the week
  + Building occupancy levels
  + Economic activity
  + Special events
  + Etc.
* ​ **β1, β2​, β3​, β4​:** Coefficients for the features

**Revenue Modeling:**

* **R(t,c)=β0​+β1​⋅L(t,c)+β2​⋅P(t)+β3⋅X(t,c)**
  + **R(t,c):** Projected revenue at time t for building class c
  + **L(t,c):** Projected load (electricity usage)
  + **P(t):** Price of electricity at time t

* + **X(t,c**): Any additional features that might affect revenue modeling
    - Seasonal trends
    - Customer class
    - Location
    - Demand response (e.g reduced usage during peak hours)
    - Etc.