Users

1. Policy Evaluator
   1. Don’t rly care about methods, about how data is used, intricacies, etc.
   2. What they DO care about: policy which is simply a profile over some period of time of either increases of electricity consumption or renewable production (decrease in consumption)
   3. Input
      1. Profile generated (wavy chart over time for solar) increase renewable generation by x amount in day, in season, periodically (etc.)
      2. Gen always producing 500mW in day/summer, 1000mW in day/winter
      3. Graph profile differences
   4. Output
      1. Marginal emissions of policy (delta emissions) by region & by type of emissions (co2/local s-oxides)
      2. Reductions in co2/local damages
         1. Health impacts from local damages
            1. Increases in Sox/Nox
            2. Premade model of what are the health effects
            3. Value of statistical life model ($ impact)
      3. Standard errors included
2. We get different ME by hour of day and season (Standardize to UTC, with SE)
   1. Input is a 24x1 table that gives
      1. For every hour of day in winter
      2. Change in electricity consumption they want to consider throughout day
      3. Delta consumption is based on hour of day/season
3. Essentially, goal is to have 2 seasons, 24h plugged in with estimated impact in power consumption as a result of policy
   1. We should return value of ME in Co2 and local harms with SE included

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1. Researcher
   1. Want to specify their own regression model
   2. Recalculate marginal emissions to get numbers for whatever policy they like
   3. Power plant level regression
      1. Regress generation by load for all regions in interconnection
   4. E/W/T different interconnections so has different regression models
   5. 2 weather models
      1. Solar intensity
      2. Wind speed
   6. Whenever load in NY increases, some pp increase production, some stay same, none increase
      1. Across full grid powerplant increase