



Overview of Energy Master Plan Modeling Effort

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Objectives of Energy Modeling

- Inform the policy making process
 - Provide a systematic tool for analysis
 - Narrow areas of disagreement
 - Identify key drivers
 - Quantify tradeoffs
 - Identify the conditions under which certain outcomes occur
- Be credible and objective
 - Consistent with professional and academic standards
 - Transparent process
 - Allow for iterative stakeholder input
 - Acknowledge modeling capabilities and limitations
 - Able to respond to the process as it unfolds

Scenario Analysis

- Base case
- Other scenarios depending on the needs of the Energy Master Planning Committee and Stakeholders
- Categories of Scenarios
 - Different future scenarios whose assumptions are internally consistent, e.g.,
 - Macroeconomic, technologies (e.g., cost of solar power), major energy infrastructure investments/retirements
 - Policy Choices
 - Sensitivity cases
- Not all scenarios are equal
- The number of scenarios can explode so this needs to be managed carefully

Some Caveats

- Modeling choices depend on the scenarios and policies being modeled
- Modeling is better at forecasting differences than absolute values
- Modeling results may depend on important conditions, that must be kept in mind when reporting and discussing the results
- Modeling may not capture all issues of concern
- Uncertainty needs to be addressed
- MARKAL data set for New Jersey is still being developed by the vendor and a biomass data set being developed by Cook College

Energy Policy Modeling Platform

