

# CAPSTF Analysis, preliminary discussion

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- Review analysis request
- Discuss modeling priorities and data
- Discuss analysis purpose
- Next steps

Market design	One clean product	Multiple clean products
Status quo		X
FCEM+RPM	X	X
ICCM		X
RPM+clean constraint	X	
FCEM+RPM+constraint	X	

## Outcomes:

- Prices & costs for clean, capacity, and energy products
- Entry and exit
- Reliability, emissions

1. Forward clean and capacity markets (multiple clean products?)
2. Include linear energy market model as in RMI analysis
3. Model locational capacity market as in Brattle analysis
4. Allow energy market outcomes feedback into forward markets
5. Model transmission constraints in energy market
6. Account for unit specific characteristics
7. Account for non-convexities (startup, ramping, etc. constraints)

- Supply side parameters
- Demand for clean attributes, including voluntary participations
- Other important parameters, “*frictions*”:
  - Imperfect information and transaction costs (status quo vs centralized market)
  - Risk of clearing clean product but not capacity (sequential vs integrated markets)
  - Thin markets (one product vs multiple)
- Stakeholders’ inputs will be key

- Sensitivity analysis to inform discussion
  - Clarify mechanisms

Why certain design choices produce certain outcomes?
  - Provide quantitative indications on relative impacts

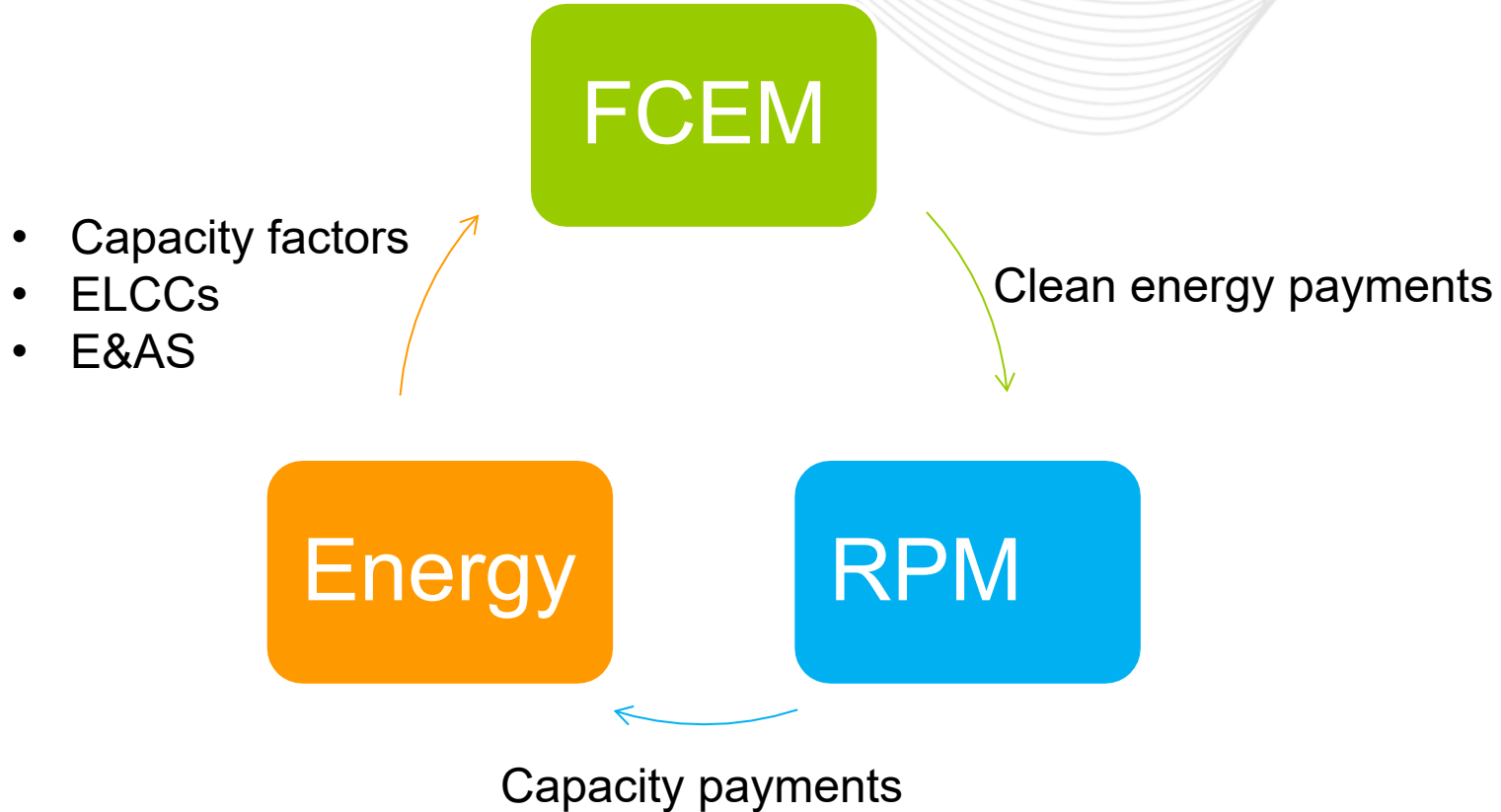
How results change with design choices and assumptions?

1. Construct forward market model:
  - One clean attribute and one capacity product
  - Assess feasibility of adding other clean and renewable products
  
2. Add energy market model (if time allows)

*Deliver by end-of-year*

# Appendix





## *Example, solar:*

- Suppose high ELCC and E&AS
- Significant entry
- ELCC and E&AS are low ex-post