

# MARKET SURVEILLANCE COMMITTEE

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## Capacity Evaluation and Performance Incentives in RA programs

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# Possible Impacts of RAMPD

1. More realistic measurement of reliability capacity in aggregate
2. Stronger incentive to improve physical availability
  - Reduce overall forced outages
  - Reduce them when it matters (stress periods)
  - Wild card: fuel availability (who's responsible?)
3. Stronger incentive to improve “market” availability
  - Bidding in flexibly more often/ always
  - Manage energy limited & storage resources for better reliability
  - Bid/procure portfolio resources (e.g. imports) to be reliable
4. Objective, technology-neutral metrics of reliability contribution

## Characteristics of capacity evaluation (UCAP) approaches

- Some metric of availability in past year(s) determines amount of capacity that can be sold in future years.
  - Can be plant specific or technology class specific
  - Usually (ideally) focused on a subset of “important” time periods
  - Practically, there are limits on just how focused it could be (e.g. not 1 hour)
- Backward looking: past performance impacts future RA revenues.
- Magnitude of penalty linked to value/cost of RA in subsequent year(s).

# Characteristics of performance incentive approaches

- Based upon resource availability in a specific hour or interval.
  - Various options for defining “availability”
  - Various options for defining “important” performance periods
- Real time: current performance impacts penalty/reward level.
- Magnitude of penalty usually an administrative value.
  - Relatively low in RAAIM; much higher elsewhere
  - Can be thought of as an adder to the energy/AS price.
- Can provide incentives to non-RA capacity
  - Explicit substitution arrangements
  - Payments for overperformance funded by penalties for under-performance

# Controversies & Challenges with Strong Performance Incentives

- Should *any* source of unavailability be subject to performance?
  - What is within the resources control?
    - Forced outages; fuel availability; state of charge?
  - How much risk should the resources bear?
  - How transparent and objective is the performance period?
- Market power mitigation of RA offers
  - Ideally should reflect risk of participation/ but how to quantify?
- Credit requirements
  - Bankruptcy from performance penalties a real issue
- Can't we just use higher scarcity prices on energy?
  - Yes! – but what should we require of capacity?
  - Performance capacity can create much more focused higher incentive if higher scarcity prices are not desired/possible

# California Specific Thoughts: UCAP

- UCAP and Performance are not perfect substitutes
- CPUC may be better positioned to manage a UCAP style approach than performance
- A UCAP that is not plant specific will address only goal #1 on my list.
  - Analysis may or may not indicate whether this is sufficient
- Could data confidentiality issues be addressed by making reporting a requirement of selling capacity?

# California Specific Thoughts: Incentives

- RAAIM or other incentive mechanisms can address issues not covered by UCAP
- Several market performance concerns could be helped by stronger incentives – **import RA**, energy limited and storage.
  - But need to navigate concerns with market dispatch outside of control of resources
  - Stronger incentives for import RA performance could be a very beneficial
- A strong incentive can encourage resources to limit themselves to selling realistic capabilities, even if the rules allow the to sell more.
  - E.g. incentives can backstop a slow-adjusting or flawed capacity crediting process

# California Specific Thoughts: RAAIM

- Higher penalty and reward values
  - Linked to either current RA or energy prices
- Address concerns that RAAIM deters showing resources
  - Portfolio evaluations?
  - More frequent opportunities for substitution
- Consider alternative performance metrics
  - Need to be objective and transparent
  - Focused on hours of real stress
  - Supply during RSE failure periods, RUC insufficiency, PBC relaxation