



ISO Comments on IMAPP

*Perspectives and Observations on
Stakeholders' IMAPP Proposals*

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ISO Observations on IMAPP Proposals

- The ISO values stakeholders' efforts to identify approaches to the integration of markets and public policy
- In an accompanying paper, the ISO offers detailed perspectives on the main IMAPP proposal areas to date:
 - Pricing carbon in the energy markets
 - Forward Clean Energy Market (FCEM) Approaches, with and without FCEM co-optimization
 - Two-Tier Pricing in the FCEM
 - See the [ISO Discussion Paper](#) in the January 25, 2017, IMAPP Meeting Materials
- A summary of the ISO's observations is offered for discussion today

I. Pricing Carbon in the Energy Markets

- Fares well on key market design criteria
 - Simplicity, transparency, and cost-effectiveness
- Technologically neutral approach for investment in low-to-non-emitting generation facilities
 - The concept is well-studied and builds on 30 years of successful price-based emissions reduction programs (e.g., SO₂, NO_x)
- Conceptually straightforward for the ISO to implement, but important practical issues for the ISO's administration of carbon pricing include:
 - Determining initial carbon price and its adjustment process over time
 - Developing carbon emission rebate allocation
 - Who gets the fee collected from emitters and in what form?
 - Open jurisdictional questions may take years to play out



II. Forward Clean Energy Markets

- Long-term approach creates ISO-administered forward energy contracts with qualified no-or-low-carbon emitting resources
 - Contracts would be awarded by an auction
- **Important issues and concerns:**
 - **Contract structure** needs much more development as it affects risk and incentives, and determines if FCEM would be successful
 - **Governance of FCEM qualification** as technology evolves may be difficult (e.g., storage, fuel cells)
 - Who decides? NEPOOL? States?
 - **Existing clean resource eligibility** requires consensus
 - **Joint optimization with the FCM** is a difficult problem and may be infeasible
 - **Mitigation treatment is still unclear** because excluding FCEM revenue from MOPR may suppress FCM prices materially, which should be avoided
 - **Potential adverse impacts on energy markets** if FCEM resources offer energy supply at prices below marginal cost

III. Two-Tier Pricing in the FCM

- **Key objective:** Accommodate expected new, clean, state-supported resources in the FCM, while minimizing their potential price suppressive impact on other FCM resources
- **Important issues and concerns:**
 - **Two-tier pricing** has not been viewed favorably by FERC in the past
 - Same obligations, different prices
 - **Increased offer prices** may be expected due to pro-rationing
 - **Reconfiguration auction and CSO bilateral** implications need to be fully considered to avoid incentive problems
- Are there other designs that can achieve this objective, without these fundamental issues and concerns?



Conclusions and Next Steps

- FCEM and carbon pricing would be lengthy endeavors
 - Developing a new FCEM product, auction process, and settlement would be a multi-year process with high demands on ISO's resources
 - ISO carbon pricing is preferred by most market design criteria, but may face legal scrutiny that takes years to resolve
- The ISO's near-term priority is for the region to develop a workable proposal for accommodating state-supported resources while minimizing their potential to suppress FCM prices and affect regional reliability
- With recent state targets in mind, the ISO anticipates needing a near-term solution in place for FCA13, likely requiring a FERC filing by the end of 2017 to impact the March 2018 FCM windows
 - ISO is examining options and is targeting additional stakeholder discussions by May 2017

Questions

