CRI Cost Recovery Comments Summary

CAISO SATA Straw Proposal June 29, 2018



CRI SATA Team



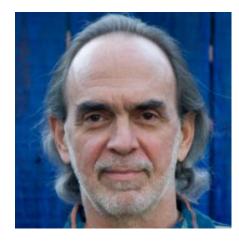
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- Co-founder & Board President, CRI
- Former VP SunEdison: Energy Storage & Regulatory Affairs



Jon Wellinghoff

- President, GridPolicy
- Former FERC Chairman
 & Commissioner



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- Independent consultant
- Former CAISO Market & Infrastructure Principal



Potential Risks & Benefits of Options A & B

Option A (Full)

- + Easy project financing/low developer risk
- + Easier for ISO to monitor
- Low motivation for asset to participate in markets
- Ratepayer assumes risk of non-market participation

Option B (Partial)

- + SATA more competitive, more SATA development
- Difficult to secure financing for market revenues
- Bankruptcy concerns
- Difficult for ISO to estimate market revenue
- Ratepayer assumes risk of overly aggressive market revenue estimates

Estimating Stakeholder Positions on Spectrum from Option A to B

ORA SDG&E

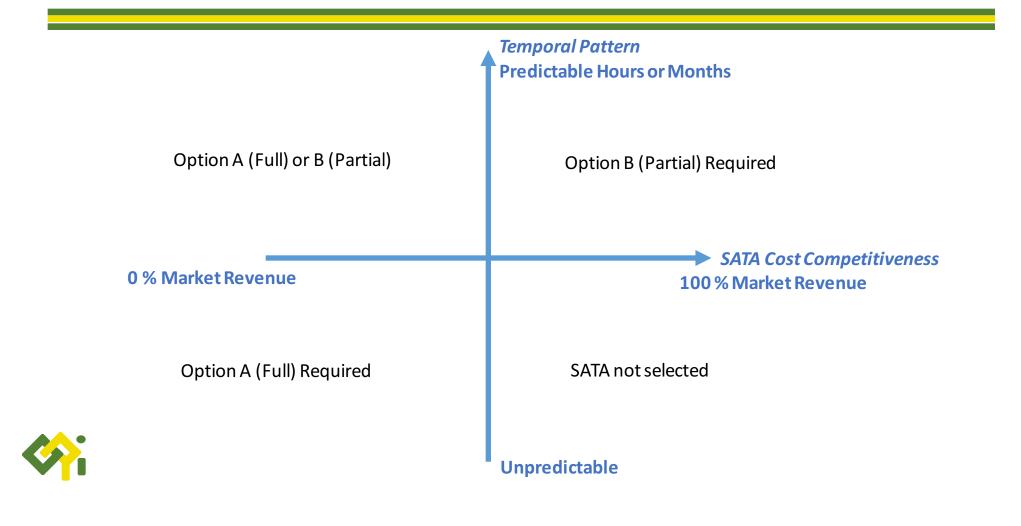
EDF

SCE ITC

NextEra

National Grid

Distinguishing When To Use Option A vs B



Refining Options A & B

	Option A (Full)	Option B (Partial)
Cost cap on transmission-based costs*	Use as differentiator in competition	Use to limit ratepayer risk and as differentiator in competition
Allow bi-lateral contracts with LSE for market-based products	N/A	Secondary bi-lateral contracts turns merchant revenue into financeable
Estimate market-based revenues in Phase 3 (vs 2)	N/A	 SATA sponsor determines markets-based revenue based on temporal pattern ISO recommends SATA and wires-based solution in Phase 2



*Used in majority of CAISO Phase 3 competitive solicitations to date

Improving Financeability of Option B with Bi-Lateral Contracts

- CAISO SATA Sponsor contract is primary, key terms could include:
 - Expected temporal pattern (and probabilities?)
 - "Make-whole" terms if temporal pattern is exceeded
 - · Typical notification time for exceeding temporal pattern
 - Emergency conditions (and limits?)
 - Terms under which temporal pattern can be redefined (e.g. frequency, event)
- Examples of types of possible secondary bi-lateral contracts:
 - SATA Owner LSE contract
 - Product types could include: Energy or Ancillary Services
 - SATA contracted to provide services in "off" hours or months to LSE
 - Interruptable contract with make-whole provisions if service is interrupted
 - SATA Owner RE Asset Owner contract
 - Product type could include: energy shifting, curtailment avoidance, etc.
 - Similar terms to SATA LSE contract
- ISO does not need visibility into non-TAC based revenue
 - FERC Order 745 -> asset should be compensated for service provided, regardless of other revenue streams



Estimating Market Revenues in TPP Phase 3

- Is the ISO the right party to estimate non-TAC based revenue, or should the ISO define the performance requirements, temporal pattern and contract terms?
 - For projects that meet the competitive procurement requirements, conceptually possible for ISO to recommend both SATA and traditional solution to Board in TPP Phase 2
 - ISO defines requirements and allows SATA, hybrid and traditional solutions to compete
 - Cost cap used on TAC-based cost for equitable comparison
 - · Stringent criteria used in competitive solicitation process to ensure financial viability
 - Competitive process ensures ISO meetings its obligation to CA ratepayers to procure most effective and efficient solution
 - Allow SATA to be bid a stand-alone solution, or part of a "hybrid" solution

