Storage Participation

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Howard Haas
Skyler Marzewski
Goals

- Market Rules that are technology neutral
- Market Rules that are non discriminatory
- Market Rules that provide least cost provision of service
- Market Rules that provide clearing prices that equal the marginal offer
- Remove artificial barriers to entry or participation
General Approach

• Review the rules for inconsistencies and artificial barriers

• Introduce offer parameters/market rules that allow storage to participate where it is technically and economically feasible to do so
Specifics

- Storage can already participate as DR
  - No changes to these rules
- Rule changes/review are for in front of meter participation
  - Correct metering can put “behind the meter” resources in front of meter for purposes of participation in ancillary services
Capacity Market

• 24 hour capability must be the basis for capacity
  • Need definition that is consistent with long term operation
    o Shorter obligation creates an inferior good that competes with 24 hour obligation
    o 10 hour definition is not sustainable
  • Need consistent treatment across all resource types
    o 24 energy offer required for capacity resources equal to capacity MW obligation
Capacity Market

- Must offer requirement in capacity going forward
  - MW equals cleared offer
  - Lesser of 24 hour capability or purchased injection rights
Injection Rights

- Can request/build injection rights = 1 hour max injection/withdrawal capability
- Injection right MW can be greater than 24 hour capability
- Testing required to maintain
Energy Offer

• Must offer requirement in energy market if capacity resource
• Subject to offer capping
• Offers ($/MW)
  • Non crossing offer and buy bids
  • Monotonically increasing
• Max injection rate/Ramp Injection rate
• Max charge rate/Ramp Charge rate
• Losses
• Pool (Storage capacity)