



Decision on commitment cost bidding enhancements proposal

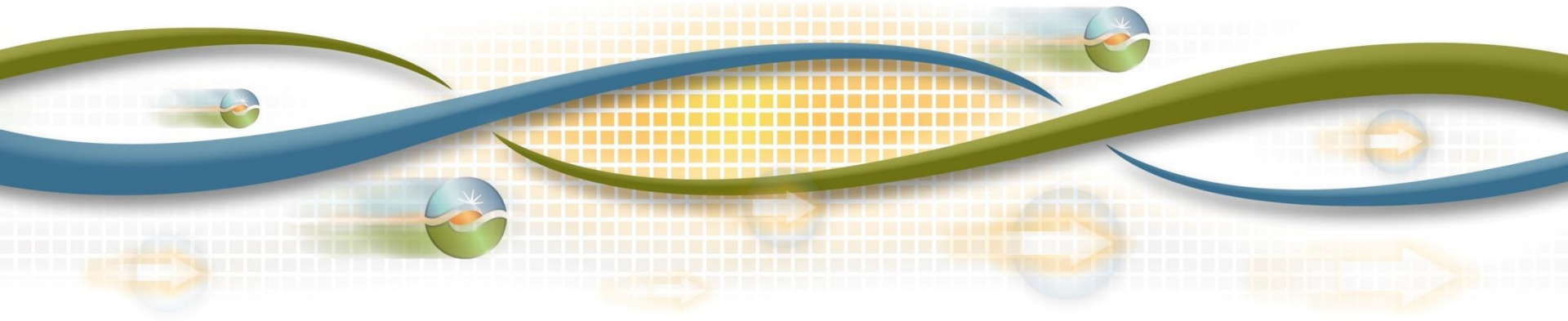
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The commitment cost bidding enhancements proposal provides significant improvements to resource commitment and cost recovery.

- Improves use-limited resource management by reflecting both opportunity costs and daily natural gas prices commitment cost bids
- Provides new flexibility for market participants to reflect preferred operating values for resource use in the market.
- Provides the ability to re-bid commitment costs in the real-time market when the day-ahead market has not committed a resource.
- Provides opportunity for after-the-fact recovery of commitment costs exceeding commitment cost bid cap.
- Improves cost estimates used by market to better reflect resource specific costs.

Current market design provides limited functionality to address the dispatch of use-limited resources

- Use-limited resources have limited starts or operating hours.
- For efficient dispatch, use-limited resources must include opportunity costs in commitment cost bids.
 - Opportunity costs are the foregone value of committing a use-limited resource on one day when there would have been greater value in saving the commitment for another day.
- Currently, use-limited resources use the fixed monthly “registered cost” commitment cost option to reflect commitment costs.
 - 150% of calculated costs bid cap provides “headroom” for opportunity costs
 - Registered cost does not account for daily natural gas price changes like the “proxy cost” commitment cost option does

Proposal improves management of use-limited resources through opportunity costs reflected in commitment cost bids

- Resource-specific opportunity cost calculated by modeling commitment based on projected market prices
- Use-limited resource's daily commitment cost bid cap increased to accommodate opportunity cost
- Use-limited resource opportunity costs and daily natural gas prices reflected in commitment cost bids
 - Registered cost option eliminated
 - Market optimizes limitations that extend beyond a single day
 - More efficiently commits resources based on more accurate commitment costs

Proposal refines “use-limited resource” definition and enables consistent application of resource adequacy requirements

- “Use-limited resource” definition: resources that need to reflect an opportunity cost to have market optimize their commitment.
 - Resources with start or run hour limitations due to environmental or design restrictions
 - Financial considerations such as contract limitations do not qualify (temporary 3-year exemption for contracts that were approved by a regulatory agency prior to January 2015)
- Provides for equal treatment of use-limited and non use-limited resource adequacy resources
 - Ensures any resource that has exhausted an annual limitation is not continued to be shown as a resource adequacy resource

Proposal includes new provisions to provide more flexibility to reflect preferred operating values

- Currently, resources are required to reflect actual physical operational characteristics
- Proposal provides flexibility for market participants to reflect preferred resource operating values
 - economic judgement or contractual limitations
- Resources required to provide minimum of two starts per day unless the resource is only physically capable of one start per day.

Proposal includes enhancements to bidding commitment costs into real-time market

- Currently market participants don't have the ability reflect updated natural gas prices in the real-time market if the resource was bid into the day-ahead market.
- Provide resources without a day-ahead schedule the ability to re-bid commitment costs in the real-time market based on updated costs.
- The real-time market will no longer automatically use day-ahead commitment cost bids for resources without a real-time market offer obligation.

Proposal includes new provision for resources to request recovery of commitment costs that exceed bid cap.

- Commitment cost bids capped at 125% of an estimated commitment cost
 - may not provide ability to reflect all procurement costs in extreme cases.
- New provision for market participants to seek after-the-fact FERC approval, and ISO reimbursement, of actually incurred commitment costs that exceed bid cap.
- ISO would incorporate approved costs into bid cost recovery mechanism.

Proposal includes commitment cost estimate improvements for more accurate unit commitment

- Commitment cost estimates are comprised of various resource-specific cost components, which are used to set the commitment cost bid caps.
- Proposal provides ability for market participants to reflect more accurate gas transportation costs used in cost estimates.
- Proposal provides a process for improving resource-specific estimates for start-up auxiliary power costs used in cost estimates.

Stakeholders support opportunity cost concept, but areas of concern remain:

- Contract exception for use limitations should be provided for life of contract
 - Uncertainty regarding market and system impact, management commits to evaluating the impact of further extension before the current exception expires.
- Opportunity cost estimates may not be accurate
 - Proposal includes safeguards including a buffer and means to manage use limitation through outage management system
- Uncertainty given paradigm shift for use-limited resources
 - Resources no longer use-limited by default have other market tools to manage use-limitations
 - Commitment costs for storage resources addressed in another initiative
- 2 start per day minimum market based characteristic is too restrictive and inconsistent with flexible capacity requirements
 - Proposal provides more flexibility than current requirements
 - Flexible capacity requirements designed to accommodate resources with physical start limitations

Management recommends the Board approve the commitment cost bidding enhancements proposal.

- Significantly improves efficiency of commitment decisions by providing more accurate daily commitment costs in the market.
- Helps to ensure full compensation of resource commitment costs by improving cost estimates and providing ability for additional after the fact payments.
- Ensures more persistent and frequent participation from resources with external limitations to maintain reliability.

Management commits to evaluate the market and reliability impacts of contractual use-limitation opportunity costs prior to end of proposed transition period.