Determination of the Capacity Offer Price Threshold

September 2025 Markets Committee

Purpose of the Offer Review Threshold

- Protect against a potential exercise of supply-side market power by reviewing bids priced *above* the expected competitive price
- *Minimize interference that mitigation measures could have on otherwise competitively based participation and pricing by avoiding review of bids below the expected short-run competitive price*
- Alleviate unnecessary administrative requirements for the ISO and participants

The intent should not be to set the threshold so low that the IMM will, in course, have reviewed and potentially mitigated the marginal offer; rather, the intent should be to allow the IMM to review offers that on their face exceeded what the IMM considers a competitive offer

Determining the Capacity Offer Price Threshold

The ISO's proposed (default) methodology for determining the Capacity Offer Price Threshold (COPT) is deficient for three reasons:

- The methodology relies on up-to-date and compatible data from the prior auction, which will not be available
- The current method is largely backward-looking; it ignores forward-looking expectations of scarcity conditions and the corresponding market response
- The methodology assumes the market will clear similarly as before rather than attempting to establish a competitive price

A better alternative to set the threshold price

- The threshold price should consider the common value 'Opportunity Cost' often cited by ISO when discussing capacity offer price development

- The proposed alternative, using a common opportunity cost, addresses the issues with the current approach
  - It *does not* rely on past auction outcomes
  - It *does not* require manipulation of historical data to fit new format
  - It *does* incorporate objective forward looking information

- The opportunity cost does *not* depend on a resource's Qualified Capacity

Opportunity Cost = Expected scarcity hours x Expected Balancing Ratio x PPR

Suppliers will have limited recourse if mitigated

- The CAR-PD proposed schedule leaves suppliers effectively no recourse if an offer is mitigated
- There are, at most, 20 days available between the time the IMM issues its initial judgement on a resource offer price and when the auction is conducted *(see proposed schedule in appendix)*
- This is in stark contrast to the nearly two months available under the current FCA activity schedule (from the ISO's information filing in November to the auction, conducted in February)

Without modification to the threshold price, suppliers that submit an offer based on 'opportunity costs' may be mitigated by IMM – and without any meaningful recourse, suppliers could be compelled to sell capacity below a competitive, market-value based, offer price

Proposed amendment to CAR-PD

- The Capacity Offer Price Threshold (COPT) will be the product of
  - The median (50th percentile) of expected scarcity hours, at Net ICR, in the corresponding study period (i.e., per ISO's Operating Reserve Deficiency analysis),
  - An expected Balancing Ratio equal to 1.0, and
  - The expected Performance Payment Rate (currently $9,337/MWh)

The table below is for illustrative purposes only

	FCA 16	FCA 17	FCA 18
Median of expected scarcity hours at Net ICR	8.2	10.4	11.2
Threshold Price (COPT)	$6.38	$8.09	$8.71

Summary

- The ISO's proposed method is deficient, and cannot be used without further adjustments (e.g., using annual or monthly reconfiguration prices, not an apples-to-apples approach)
- The alternative method proposed is consistent with both the objectives and purpose of a threshold price
- This approach is robust in the sense it can be used regardless of auction format or accreditation methodology
- This method is based on ISO-based, forward-looking, objective data, as often cited by ISO as the basis for calculating PFP Opportunity Cost

APPENDIX

Also see August Markets Committee presentation here:

- 2025-08-12-14 MC A03.1I - Capacity Auction Reforms - Prompt/Deactivation: Calpine Energy Services conceptual amendment - Capacity Offer Price Threshold methodology

Proposed activity schedule summary

(# references days before CCP commencement, June 1, 2028)

September 1, 2027	274 days	ISO sets the Capacity Offer Price Threshold
February 2028	121 days	For one month the IMM facilitates non-binding consultations with individual suppliers
March 1, 2028	92 days	Cost workbooks for offers exceeding the threshold price due
April 13, 2028	49 days	IMM issues determination of price review to individual suppliers
April 25, 2028	37 days	IMM issues any subsequent adjustment to their prior determination
May 3–10, 2028	29–22 days	ISO conducts the sealed-bid auction

Derivation of the 'common value component'

A rational participant would not accept a CSO below the 'break-even' price

- Revenue w/o CSO = Revenue w/CSO

  ACP x hours x PPR = [ACP – Br x (CSO)] x hours x PPR + (FCA Clearing Price x CSO)

- Solve for FCA Clearing Price (*i.e.*, minimum acceptable price)

  ACP x hours x PPR = (ACP x hours x PPR) – (Br x CSO x PPR x hours) + (FCA Clearing Price x CSO)

  (Br x CSO x PPR x hours) = (FCA Clearing Price x CSO)

  Br x PPR x hours = FCA Clearing Price = common value component

Where:

- ACP – Actual Capacity Provided (energy & reserves)
- PPR – Performance Payment Rate (a fixed value)
- Hours – hours of expected Capacity Scarcity Conditions
- Br – expected Balancing Ratio

Reserve Deficiency Information

ISO Memo on Operating Reserve Deficiency Information for FCA 16
ISO Memo on Operating Reserve Deficiency Information for FCA 17
ISO Memo on Operating Reserve Deficiency Information for FCA 18

- "In addition to estimating LOLE, the same model provides estimates of the expected number of hours per year during which operating reserve requirements cannot be met."

- "Applying Monte Carlo simulation techniques, the GE MARS model, evaluates the annual (or a chosen period) bulk power system resource adequacy by simulating the availability of resources and the assumed demand on an hourly basis. The program registers a shortage hour when the amount of available capacity in the system is not adequate to meet the system load and operating reserve requirement for the hour of interest."

- "the shortage hours reported in this study do not reflect any shortage hours that could arise relating to operational risks such as under-commitment due to load forecast error in operations, loss of critical transmission elements, loss of fuel supply facilities; or lack of fuel supply, etc."