Comments of Calpine Corporation on

Flexible Ramping Products

Straw Proposal

Dated: June 2, 2014 Comments Submitted: June 23, 2014

Summary:

Calpine continues to support the development and implementation of a bidbased, co-optimized ramping reserve product in all sequential markets. We believe the implementation of this product will benefit both load and generation by reducing the occurrence of power-balance violations and irrational price spikes in both upward and downward directions.

Calpine is disappointed that the design has moved from a bid-basis to a mustoffer-zero-bid product that undervalues FRP vis-à-vis other fungible reserves products and confuses the value of Flexible RA and Generic (system or local) RA. We remain concerned with the basis of the demand curve and the slow pace of implementation.

Calpine Supports using ONLY Flexible RA bids for FRP

The CASIO began development of this product nearly 3 years ago, with strong support from both the market participants and its own Board. The initial design was for a biddable reserves product that would be co-optimized in all sequential markets. Calpine loudly supported the initial conceptual designs.

The latest proposal is a far departure from that conceptual design as now any energy bid would apparently be considered for the creation of ramping capacity and FRP sub-optimal dispatch regardless of whether the generator bids the energy as FRP, Flexible RA, system RA, generic RA, or even non-RA capacity.

This indiscriminate use of all energy bids to create ramping capacity defeats one of the intended purposes of FRP, which is to reward, through short-term markets, units that offer to make their flexibility available on a planning basis though Flexible RA. In our view, it is clear that the ISO should modify its proposal to allow ONLY units that bid-in pursuant to a Flexible RA must offer obligation be used to meet the constraints embedded in FRP.

Calpine Continues to Support a Biddable FRP Reserve Product

Calpine continues to believe that FRP capacity should be allowed to be bid with a non-zero price, particularly in DA markets.

FRP is a fungible product. The same capacity can be used for multiple purposes including spin, non-spin, regulation and of course, production of energy. The ISO models incorporate a co-optimization that chooses resources based on cost minimization objectives -- the least-cost combination of resources to meet the competing and simultaneous needs of the grid. All competing reserves products can be bid, thereby allowing the resource provider to signal use preferences, cost consequences and value to the ISO.

Unfortunately, the ISO now proposes to eliminate the bidding opportunity for FRP and apparently force Flexible RA providers to bid zero capacity values for their entire Flex RA range. The net result of this requirement would be that the cost of FRP represented to the optimization will be only the opportunity cost of not generating. This same opportunity cost will be calculated for other reserves products (e.g., spin, non-spin) but resources are allowed in those cases to bid non-zero prices. The natural consequence of this constraint on FRP bidding will be that the model will "pick" FRP before awarding, for instance, non-contingent spin – which is an entirely fungible product. The resulting clearing prices for equivalent products will be different, raising significant questions of reasonableness.

All and any ability to express the value of FRP, to discipline the choices of the ISO model between the expected costs of providing FRP vis-à-vis other reserves, and the ability to express the preferred uses of capacity are eliminated by this must-offer-zero bid requirement.

In the stakeholder meeting it was suggested that the shape of your energy bid curve could be used to differentiate products and to express value and use preferences. We entirely disagree. First, energy bid curves can and are routinely mitigated, making the structure of submitted bid curves less meaningful. Second, the opportunity cost of a given bid curve is precisely the same for all reserves products, so differentiation is not possible.

Even if, as some claim, FRP capacity has a lower value than other products, because there is a high probability of dispatch (compared, for instance to spinning reserves), this is not a reason to force a zero-bid requirement. In practice, and if this theory holds, bid prices will reflect the relative differences. But the expectation alone is insufficient to eliminate all bidding.

Calpine Continues to Be Concerned with the Shape of the Demand Curve

The proposed demand curve is based on the historical frequency of power balance violations and the presumed cost of such. We will not repeat our criticisms of this approach, or the lack of a going-forward counterfactual, but continue to believe that IF a non-vertical demand curve is used, any "steps" must be based in current and expected conditions.

Calpine Supports an Earlier Implementation

The CASIO has captioned this as a "Straw Proposal", resetting the review clock back months and facilitating an implementation no sooner than fall of 2015. Calpine believes that the changes embedded herein can be finalized and submitted the Board in August, much sooner than December of 2014. FERC filings and sufficient testing could be done in time for a Spring Release. Indeed, in seeking revisions to the Flexible Ramp Constraint price just last month, the ISO committed that the FRC was an interim measure that would be replaced as soon as practicable by FRP.

Thanks