Resource Adequacy

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What’s wrong with ICAP (short version)

- Temporal disconnect
- Structural disconnect
- Pays the wrong amount at the wrong time to the wrong people (and doesn’t do that very well)

SMD NOPR

- Correctly identifies problem, but:
- Requires physical asset (thus limiting entry and trading)
- Links to specific LSE forward obligation (thus distorting competitive LSE market by constraining entry and exit)

Objectives

- Bankable commitment
- Public confidence that the capacity will be there (and not just on average), and be sufficient to minimize market power and ensure reliability
- Get what you pay for
- Market based
- Minimal interference with energy market (i.e. dampen volatility some, but not entirely)
- Minimize estimation errors

Proposal

- Fix amount of cash needed now, deliver cash on deliverability of product
  - Product is delivered energy (or available reserves) at specific time and place coupled with “strike price” bid obligation. In other words, the commitment is to increase the spread between actual and required capacity on specified notice
  - Product auctions differentiated for different products (e.g. “baseload,” short notice energy, etc.)
  - DSM could bid if it can deliver the product; transmission could easily participate when coupled with generation

Proposal (cont.)

- Recognize that the market as a whole (and consumers as a whole) need adequate capacity
  - Disconnect load obligation from capacity obligation
- RTO role in predicting need
  - Broad participation in process essential
  - By zone where appropriate
  - Reserve requirement in part a function of market concentration
- Auction
  - Pay as bid
- Time horizon to match time needed to build
  - E.g. 3 years

Issues

- New or all capacity?
  - Allow all to bid; ensure that market power does not emerge
- Auction for right or obligation or both?
  - Only for obligation
- By Zone?
  - Yes, where constraint (capacity shortfall) is anticipated
- By generation type?
  - Yes, but defined by product

More issues

- Role of DSM?
  - Can bid; deliverability requirements are the same
- Participation in energy market?
  - Obligation is to bid at or below strike price; assets receives clearing price in energy market

Still More Issues

- Impact of bilateral contracts or self-supply
  - Value (to purchaser) of capacity can be recovered by bidding into the the capacity market auction
  - Alternative would be auction only for “additional” product needed, but this approach requires assessment of what existing resources will still be available

Final Issues

- Whether this approach is superior to relying on energy market with high bid/price caps is partly political, partly empirical question
- Any model should be “game” tested