$(58,845.14)

Recommendation: RCM Regime Changes

22 November 2012

Comment

- Seems to be much confusion on how to estimate the cost of “excess”
- Brendan used a marginal value and represented it as applicable to all excess Æ not correct
  - Marginal value will approach MRCP as excess Æ zero
  - Brendan’s 100x estimate is closer to 3x than 100x
- ERA used an estimate that does not reflect contracting and RCP formula impacts
  - Reduces impact by about 50%
- No one seems to be using an estimate that can be linked to a “how do we make sure that the hypothetical world can actually happen” concept
- There is no point in estimating a counterfactual that is pure fiction

Two basic choices: both are valid if implemented well

- Desirable characteristics:
  - Market-based
  - Self-correcting
  - Puts risk where it can be managed
  - Incentivises desirable behaviours
  - Compatible with longer-term market developments/evolution options

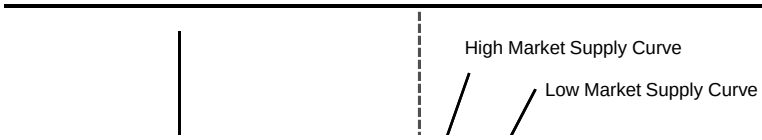
"PJM"
(auction approach)

WA RCM
(with changes)

Complexity of Capacity Markets with Auction Components

PJM	NYISO	ISO-NE

• One year commitment 3 years forward
• Sloped VRR curve in RPM auction
• Locational market clearing
• Energy and AS margins for marginal new unit accounted for in setting demand curve
• UCAP product with penalties/bonuses based on performance relative to EFORd during peak hours.
• Bids subject to significant mitigation for seller and buyer market power.
	• Seasonal and monthly auctions for prompt period
	• Administrative demand curve in spot auction
	• NYC and LI requirements
	• Energy and AS margins for marginal new unit accounted for in setting demand curve
	• UCAP product with availability determined by EFORd metric
	• FERC proceeding underway to review market design, which currently only applies to divested units in NYC
		• One year commitment 3 years forward
		• Descending clock auction with vertical demand curve
		• Locational market clearing
		• Ex post PER adjustment
		  • Based on earnings of a 22,000 Btu/Kwh unit
		  • Rolling average for 12 months prior to delivery.
		• Availability metric based on performance in critical hours
		• Bid and payments not mitigated for new units; existing units subject to mitigation measures


High Market Supply Curve
Low Market Supply Curve

Proposal for the RCM

- Retain the RCM and recognise that it can be an effective market-based mechanism, but that it requires several significant adjustments.
- Steepen the slope factor in the RCP formula to -3.75
- Increase the maximum RCP to 110% of the MRCP (or build in a 10% margin within the MRCP)
- Use 97% of the RCR as the basis for the RCP formula (so that the RCP is 110% of the MRCP at 97% of the RCR, and is equal to the MRCP at the RCR).
  - Note that a supplemental auction would still be called if the CCs fall below the RCR. Under such situation, any uncontracted CCs procured through the IMO would be sold at up to 110% of the RCP, per the formula.
- Implement the refunds + rebate (recycling) regime as discussed

What to compare the current regime to?

Assumes 15% ERC

Assumed average contract price (as % of MRCP)	Proposed @50% Contracting		Existing @50% Contracting		90% @ contract price; 10% at MRCP (No Excess)
90%	$759,681,867		$809,460,769		$791,682,892
85%	$738,584,823		$787,711,239		$752,533,738
80%	$717,487,779		$765,961,709		$713,384,584

The “No Excess” case is a control case in which, essentially, a spigot control concept is applied so that only the precise amount of reserve capacity is included (Zero Excess) – but the cost is in accordance with the contract price assumption, a contract level (90%) assumption and the MRCP

The “Existing” case incorporates the current RCP formula and 50% contracting

The “Proposed” case incorporates the steeper slope, 97% offset and a +3% adjustment upwards to account for “lost” refund regime revenue

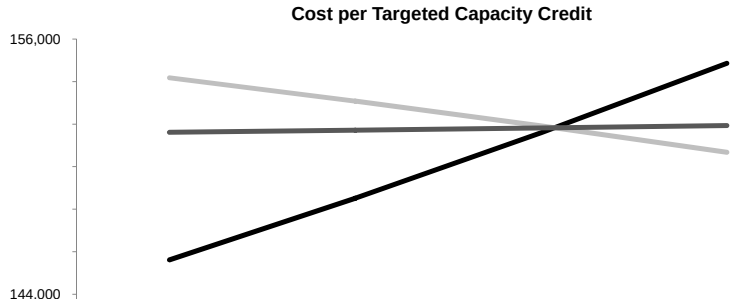
In all cases, and across a wide range of assumptions, when contracting is at 50%, the “no excess” case is always more expensive than the existing case – the reason is simple – there is no contracting incentive, so a significant amount of RCP risk (including MRCP resets) already flows through to capacity resource providers.

What to compare the current regime to?

Assumed average contract	Proposed @50% Contracting	Proposed @90%			

Alternatively – and more usefully -- what is the cost to the market of one more capacity credit, for a given contract position

Proposal provides a clear risk management structure



Proposal for the RCM

Efficiency	Competition	Discrimination	Cost	Usage
1	2	3	4	5
Y	Y	Y	Y	0

- Retain the RCM and recognise that it can be an effective market-based mechanism, but that it requires several significant adjustments.
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- Increase the un4c]9.8(sieCr i re f B5.4 112.50%. 5390 9pC888211 60)Tj E(in tbuild 112.50he642 B5.4 112.50%. 5390 9p /CsiisT /Cs