

Public Power Proposal: Bilateral-Residual Capacity Market Structure

Overview

Electric resources procured to meet non-electric market policy objectives have the potential of affecting wholesale electric market prices, while wholesale market rules can prevent the resources required to meet such policies from clearing in the wholesale electric markets. This leads to the prospect that consumers in the region will be required to support more resources overall than otherwise might be needed to meet both the electric resource adequacy requirements and the state policy requirements if they were to be considered in conjunction with each other. The primary challenge to allowing resources needed to meet non-electric policy requirements (which may receive support from outside the electric market) to participate in the capacity market is to allow the capacity of such resources to “clear” in a way that does not unduly affect the price that would be paid to purely competitive electric market resources. Under the current structure, this concern has given rise to the Minimum Offer Price Rule (MOPR) provisions.

The most direct way to achieve this objective in New England is to make minor changes to the Forward Capacity Market structure to accommodate bilateral arrangements between a Load Asset Owner and the lead participant of resources needed to meet non-electric market policy objectives within the Forward Capacity Market (FCM) structure. We will refer to the resources subject to such arrangements as “Certified Load Asset Resources” or CLARs. CLARs would not receive base FCM payments (i.e. would have to rely on underlying contract payments from Load Asset owners plus other non-FCM market revenues) but would otherwise be treated as capacity resources under the Performance Incentive provisions of the Forward Capacity Market. Once certified by the respective Load Asset Owners and Lead Participants and accepted by ISO-NE for participation in the Forward Capacity Auction (FCA), CLARs would be automatically cleared in the applicable FCA at their full qualified capacity.

Incorporating CLARs into the Forward Capacity Market

1. In general, we envision the FCM working very similar to how it does today. This document will focus on potential changes and adjustments to the current FCA process to integrate bilaterally funded CLAR capacity into the FCA settlement without adversely impacting (i.e. depressing) the capacity price paid to non-CLAR competitive market resources.
2. During the qualification stage of the the FCA, both the Load Asset Owner and the CLAR Lead Participant must certify to the ISO that arrangements are in place to support the CLAR without FCA base payments.

- a) CLARs that have not previously cleared in a primary FCA would be subject to the MOPR for determining its location on the supply curve used to develop the FCA clearing price and identifying the non-CLAR resources that will receive a Capacity Supply Obligation (CSO). Such CLARs will receive a CSO equal to their full qualified capacity.
 - i. For purposes of constructing the FCA supply curve, the “proxy price” of such new CLARs will be set at the applicable Offer Review Trigger Price (ORTP) rate, unless the Load Asset Owner can demonstrate that the price under its agreement for the resource is lower than the ORTP.)
 - b) CLARs that have already cleared in a prior FCA will be treated like any other Existing Resource. Such CLARs will also receive a CSO equal to their full qualified capacity.
 - i. Delist bids for CLARs must be certified by both the Load Asset Owner and the Lead Participant.
3. In constructing the supply curve for the FCA, the price for CLARs would be based on the applicable price as defined in Section 2.a) and 2.b) above. The intersection of this supply curve and the approved demand curve will define the total quantity to be procured (Q_{Total}) and the FCA clearing price (P_{Final}) paid to non-CLAR capacity.
4. We expect that some of the CLARs will have an approved proxy price higher than P_{Final} ($Q_{CLAR \text{ above } P_{Final}}$). Since all CLARs will clear at their full qualified capacity, this means that the total quantity cleared in the FCA will exceed Q_{Total} . We propose to adjust (reduce) the quantity for all non-CLAR resources receiving a CSO ($Q_{Non-CLAR}$) such that the total of the qualified CLAR capacity plus the adjusted CSO of the non-CLAR resources equals Q_{Total} .
- a) The formula for adjusting the CSO of each of the non-CLAR resources is as follows:

$$\text{Unit CSO}_{\text{Non-CLAR Final}} = \text{Unit } Q_{\text{Non-CLAR}} * [(\text{Sum}(Q_{\text{Non-CLAR}}) - \text{Sum}(Q_{\text{CLAR above } P_{\text{Final}}})) / \text{Sum}(Q_{\text{Non-CLAR}})]$$

Example

Assumptions:

$$Q_{Total} = 35,500 \text{ MW}$$

$$P_{Final} = \$ 6.44 \text{ per kW-month}$$

$$\text{Total } Q_{CLAR} = 6,000 \text{ MW}$$

$$\text{Total } Q_{CLAR \text{ above } P_{Final}} = 2,000 \text{ MW} \quad (\text{This has sometimes been called the “in-betweens”})$$

$$\text{Total } Q_{Non-CLAR} = 35,500 \text{ MW} - (6,000 \text{ MW} - 2,000 \text{ MW}) = 31,500 \text{ MW}$$

For a resource that receives a 100 MW commitment in the initial FCA, the final Capacity Supply Obligation (CSO) would be determined as follows:

$$\text{Final CSO} = 100 \text{ MW} * [(31,500 \text{ MW} - 2,000 \text{ MW}) / 31,500 \text{ MW}] = 93.65 \text{ MW}$$

Questions and Issues for Further Development

1. From a settlement standpoint, the Load Asset Owner would also need to “link” the CSO of the CLARs with the “ICAP Tags” of its respective load assets. An open question is whether this designation would have to be made as part of the qualification process or if it can happen after the auction results are finalized.
2. How would zonal settlements in situations where a CLAR is in a different location than its associated load?
 - a) Could a CTR-like construct reflecting the difference between zonal prices be used in this circumstance?
3. Should there be a limit on the amount of “above market” CLAR capacity (i.e. in-betweens) that can clear in order to maintain sufficient “market resources” to meet bulk power system needs and assure reasonable capacity market price formation?
4. Should there be a minimum number of years for CLAR treatment for a New Resource that clears as a CLAR?
5. Other Issues?