Attachment B

Opinion on "Interim Capacity Payment Mechanism under MRTU"
by

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1. Introduction

The California ISO has asked the Market Surveillance Committee (MSC) to comment on its Interim Capacity Procurement Mechanism (ICPM) proposal.[1] The ICPM will replace the existing Reliability Capacity Services Tariff (RCST) when the Market Redesign and Technology Upgrade (MRTU) market is implemented. The ICPM will allow the ISO to supplement or backstop the resource adequacy (RA) procurement of load-serving entities (LSEs) to ensure there is sufficient generation capacity available to the ISO operators to maintain reliable grid operation in the California ISO control area.

The ISO proposal envisions two circumstances that will trigger purchases under the ICPM, what it calls Type 1 and Type 2 procurement. Type 1 procurement occurs before the compliance year if an LSE or group of LSEs has not purchased the full amount of their local or system-wide Resource Adequacy Requirement (RAR) by the time of the required RA showing for that year. Type 2 procurement occurs during the compliance year if the ISO determines that a "Significant Event" has occurred that creates a need to supplement LSE-procured capacity within the year.

The ISO has been undertaken an extensive stakeholder process to develop its ICPM proposal. The MSC has actively engaged in this process through both meetings and conference calls with ISO staff and stakeholders. The MSC also discussed this topic at previous MSC meetings starting with the June 6, 2007 joint MSC/stakeholder meeting. Because the ISO's ICPM proposal specifies an administrative price that the ISO will pay for capacity and the circumstances under which the ISO will pay this price, the design of the ICPM proposal has caused significant controversy among stakeholders. Generation unit owners typically favored higher prices for ICPM capacity and a commitment to pay this price for a longer period of time. Load-serving entities preferred lower prices and shorter time commitments to pay it. Virtually all parties agreed that the ISO should clearly specify in advance the circumstances under which it will make an ICPM procurement. The lack of stakeholder consensus of these issues implies that the ICPM process must strike a balance between divergent stakeholder desires and craft a proposal that all parties can live with until the current long-term RA proceedings at the California Public Utilities Commission (CPUC) have been completed.

We believe that the ISO's final ICPM proposal is a compromise solution that does not have any significant defects that are likely to harm system reliability or short-term market efficiency, or interfere with the functioning of the RA procurement process. We emphasize that

[1] This proposal is summarized in the document "Final Proposal for Interim Capacity Procurement Mechanism Tariff Filing," November 9, 2007, available at http://www.caiso.com/1c91/1c91b9f063f90.pdf

this is an interim mechanism that should be re-evaluated or even eliminated once a scarcity-pricing mechanism has been implemented and the long-term resource adequacy process at the CPUC has been resolved. We also believe that a number of features of the ICPM proposal address potential concerns we had with previous ICPM proposals. In particular, we were concerned that setting the cost of new entry (CONE) as the cap on the price of capacity for Type 1 procurement was likely to impact the price LSEs had to pay for RA capacity, particularly in areas likely to be subject to the exercise of local market power. Because the ICPM proposal may change as a result of stakeholder input before it is presented by the ISO Board, in this opinion we discuss features of the current ICPM that we would recommend retaining in the final proposal.

2. The Role of Type 1 versus Type 2 Procurement

We believe that the argument for the ISO having Type 1 procurement authority is weaker than the argument for the ISO having Type 2 procurement authority. A Type 1 procurement occurs in advance of the compliance year if an LSE fails to meet its RA capacity requirements. Because an LSE's showing of its RA capacity is made in advance of the actual compliance year, there is sufficient time for the California Public Utilities Commission (CPUC) to oversee the Type 1 procurement process, with the ISO only providing technical input on which generation capacity should be purchased. For example, if the ISO determines that there is inadequate RA capacity procured, it can request that the CPUC procure a certain amount of capacity from a group of generation units before the start of the compliance year. If the ISO is able to identify which LSE is short relative to its RA requirements, then the process could be streamlined even more. The CPUC would order the LSE that the ISO determined is short relative to its RA requirements to purchase the necessary capacity. It is difficult to see how any purchase cost savings or administrative costs savings would be realized by giving the ISO, instead of the CPUC, the authority to make these purchases. In fact, the CPUC is likely to have a stronger incentive to procure the necessary capacity shortfall at a lower total cost than the ISO because of its legal mandate to ensure that California consumers pay just and reasonable prices for electricity.

Although an effective long-term RA process at the CPUC can virtually eliminate the need for the ISO to make Type 1 procurements on behalf of CPUC-jurisdictional entities, we recognize that there is still a case for granting the ISO the authority to make them. First, there are LSEs in the California ISO control area that are not subject to the CPUC's jurisdiction, and they consume a non-trivial percentage of the annual peak demand.[2] Second, although there are safeguards and incentives in the CPUC RA procurement process, it is still possible that this process could result in the CPUC-jurisdictional entities having procured inadequate capacity in certain local areas or on a system-wide basis for the ISO to maintain grid reliability.[3] Consequently, the option for the ISO to make a Type 1 procurement must exist as a last resort if the CPUC process fails or non-jurisdictional LSEs fail to procure adequate capacity.

[2] Under the ISO tariff, all LSEs in the ISO control area are subject to its local resource adequacy requirements and can be assessed all or a portion of the costs of Type 1 and 2 procurements to address RA capacity shortfalls.

[3] The CPUC RA process provides an opportunity for LSEs to eliminate any RA deficiencies identified in their initial RA showings and subjects LSEs to penalties for non-compliance with its RA requirements.

The urgency and likely duration of a Type 2 procurement argues in favor of an ISO-dominated process for these purchases. First, an ISO determination that a "significant event" has occurred is necessary to trigger a Type 2 procurement. Second, the reliability consequences of a significant event may be so severe that the ISO cannot wait for a joint ISO and CPUC administrative process to identify the additional generation capacity needed before a CPUC-sponsored procurement can take place. The typical Type 2 procurement is also likely to be of a very short duration, because it is triggered by an unexpected event not anticipated at the time of the annual RA showing in advance of the compliance year.

The argument for an ISO-dominated Type 2 procurement process is even stronger because this procurement only occurs within the compliance year and serves a different role from the standard RA capacity product. The primary rationale for Type 2 procurement is to ensure that the generation capacity purchased continues to bid into the short-term market. Receipt of the ICPM capacity payment is conditional on the unit owner being willing to subject its unit to the ISO's must-offer obligation. For this reason, the price and duration of payment for Type 2 ICPM procurement does not provide a signal for new generation investment. This payment must only be sufficient to ensure that a supplier that has decided to offer a generation unit into the ISO markets during the compliance year without an RA contract continues to do so because of the increased reliability need for this capacity caused by a "significant event."

3. Allowing the ISO Considerable Leeway to Determine a Significant Event

Virtually all stakeholders have argued that the ISO should clearly specify the circumstances that give rise to a significant event worthy of an ICPM procurement. However, one key measure of the performance of the RA procurement process is the frequency that significant events occur. The annual RA process, which requires suppliers to procure adequate generation reserves (approximately 115 percent of peak demand), is designed to provide sufficient generation capacity to the ISO operators to manage all unexpected reliability events throughout the coming year. Clearly, it is impossible for the ISO to anticipate all possible future reliability events. For this reason, we support giving the ISO the authority to make a Type 2 procurement of additional RA capacity during the compliance year if one of these events occurs.

We also support giving the ISO operators considerable discretion to declare a significant event whenever they determine that additional RA capacity is necessary to maintain grid reliability. However, the CPUC and ISO should give serious consideration to revising the annual RA requirements for the year following any year that the ISO declares a significant event. As noted above, our expectation is that significant events should rarely, if ever, occur under a properly designed RA mechanism.

We recognize there are two competing tensions in designating a significant event: (1) the need to provide the ISO with the discretion to purchase additional RA capacity if it believes that system reliability is adversely impacted by an unexpected event, and (2) the need to provide as much clarity as possible to the process used to designate significant events so that market participants do not rely on the ICPM process to meet their RA needs. We support giving the ISO substantial discretion in making this determination because the potential reliability consequences of limiting the set of circumstances when the ISO can declare a significant event are simply too great to ignore.

4. Limit Interaction ICPM with Pricing of RA Products

The ICPM backstop price is likely to function as an upper bound on the prices that LSEs will pay for RA capacity, particularly in local areas with adequate generation capacity but inadequate competition among generation unit owners to sell it at a reasonable price. In these areas, the ICPM capacity price is likely to become the default price for RA capacity, because the LSE knows that it can purchase this capacity at the ICPM capacity price through a Type 1 procurement process. Consequently, if the ICPM price is set too high then retailers may be forced to pay this price for capacity in areas where suppliers have significant local market power, despite the fact that there is adequate generation capacity in the area to meet the ISO's RA needs.

The original ISO proposal was to make the cost-of-new-entry (CONE) the benchmark ICPM price for a Type 1 procurement. The local market power problem for RA capacity procurement was to be addressed through an administrative demand curve that reduces the price of a Type 1 capacity procurement if there is more generation capacity in the local area than is necessary to meet the LSE's RA requirement. This proposal raised a number of controversial questions about how to define the slope of the demand curve, how to set the value of CONE, and how to define local capacity areas. Although CONE may be justified in some local areas, in others there may be ample installed capacity, but local market power prevents it from being transacted at a reasonable price. Given the ongoing long-term RA process at the CPUC, we feel it is better to sort out these issues in the LT-RA proceeding, rather than in the ICPM process.

We support a capacity price significantly below CONE for Type 2 RA procurement. The consensus among MSC members is that Type 1 ICPM payments that address RA procurement deficits before the delivery year should be higher than payments made within the delivery year to address RA deficiencies stemming from a significant event. The distinction is that ICPM procurements before the delivery year may provide incentives for more generation capacity to exist at certain locations in the ISO control area. However, given the stakeholder controversy surrounding the appropriate price and market power mitigation mechanism for a Type 1 procurement and the interim nature of the ICPM procurement process, we understand the ISO's desire for simple administrative price for Type 1 procurement until long-term RA process at the CPUC is completed. .

5. Limit Price and Magnitude of Duration of ICPM Procurement

As discussed above, if the RA procurement process functions as intended, then there is likely to be little need for a Type 2 ICPM procurement as the original RA process will have adequately anticipated and accounted for "normal" contingencies. Moreover, the need for Type 1 procurement can be virtually eliminated if the CPUC ensures that all jurisdictional LSEs in the ISO control area meet their local and system-wide RA requirements. This logic implies that there should be very little Type 1 and 2 ICPM procurement each year if the RA process is properly designed. If the annual RA process is properly implemented, any ICPM procurement that does occur should be Type 2 and of very short duration.

Any capacity purchased under a Type 2 ICPM procurement is, by definition, capacity that does not have a RA capacity contract, yet has still decided to invest or remain in operation and sell into the ISO's day-ahead and real-time markets for at least part of the year. For this reason, it is worth considering what an ICPM payment is "buying" under these circumstances. The ICPM payment is buying a must-offer requirement from the generation unit. This procurement would occur when a unit that had been viewed as surplus capacity under normal conditions becomes critically needed because of a "significant event." One might expect that under these circumstances, the energy and ancillary services prices paid to this unit would rise, increasing the incentives for it to offer into these markets of its own volition (*i.e.* without a must-offer requirement). It is important to note that these units were presumably offering into the market at other times without being required to do so before the Type 2 ICPM designation. However, several possible complications could arise under the current market design that argue in favor of a positive ICPM payment for a Type 2 procurement.

It is possible that local market power mitigation combined with relatively low price caps on the ISO's energy and ancillary services markets would prevent market prices from rising to the levels necessary to induce this unit to offer sufficient capacity at critical times.[4] Certain generation units may be needed to provide services that are not fully priced by the current market design, such as a local form of a slow response time (30 to 60 minutes) operating reserve. In this circumstance, the must-offer requirement and the Type 2 ICPM payment fills the reliability and revenue gaps left by this unpriced service. One last important factor is the residual unit commitment (RUC) payment that could be earned by a non-RA unit. Under some circumstances a firm may be able to earn considerable revenues through RUC payments that stem from some form of local market power that the unit owner is endowed with as a result of the significant event. A generation unit that is not under must-offer could in theory offer only a portion of its capacity into the market. Even though the bid price of this capacity is subject to local market power mitigation, the unit's offer quantities would not be regulated. Requiring the unit to sell Type 2 ICPM capacity under these circumstances prevents the exercise of significant local market power.

As noted earlier, because the units that are at risk to be called upon to provide Type 2 ICPM capacity have already made a decision to participate in the ISO's markets without an RA payment, we believe that the payment for Type 2 ICPM capacity should at most recover the generation unit's going-forward fixed costs. If the ISO's bid caps are too low, without an ICPM capacity payment, the unit owner might not recover its going forward-fixed costs from energy and ancillary services sales.[5] The $41/kW-year ICPM payment for Type 1 and Type 2

[4] The example of a plant that has been temporarily "mothballed" for a season has been raised as another rationale for a positive Type 2 ICPM payment, but we do not have sufficient information to determine how prevalent such circumstances are.

[5] It is important to note that the market power mitigation mechanism limits the prices *offered* into the market, rather than the market-clearing price itself. Under a fully integrated scarcity pricing scheme with a sufficiently high price cap, firms can recover their fixed costs even when they are offering their units into the market at marginal cost, as the local market power mitigation mechanism requires that they do.

procurement makes it very unlikely that a unit owner will receive revenues that do not recover its variable operating costs and going-forward fixed costs.[6]

The ISO is also considering whether to allow a unit owner to decline an ICPM designation. We support prohibiting unit owners from declining a Type 2 ICPM designation, particularly for procurements caused by local or regional capacity shortfalls where only one or a small number of generation unit owners can provide the product. We believe the case for this prohibition is much weaker for Type 2 designations made for system-wide capacity shortfalls. Providing a generation unit owner with the option to reject this designation sets up the following perverse incentive. Only those unit owners able to exercise substantial unilateral market power by not being subject to the ISO's must-offer requirement will refuse the ICPM designation. The unit owners unable to exercise much unilateral market power without a must-offer requirement will instead elect to receive the ICPM payment. These units are those most likely to be offering into the energy and ancillary services markets at reasonable pries anyway. In short, a policy that creates a special designation such as Type 2, but makes it optional to accept this designation, creates an adverse selection problem that could raise costs to consumers without significantly improving grid reliability.

Allowing parties the option to decline an ICPM designation could lead to the following costly series of events under either Type 1 or Type 2 procurement: The ISO devotes significant time and effort to determining the most appropriate generation resource for an ICPM designation, and the unit owner declines this designation for the reasons discussed above. This would unnecessarily increase the cost of the ICPM procurement process and likely result in the ISO purchasing ICPM capacity from units less able to meet its reliability needs. To address concerns that a supplier may be unable to recover the costs associated with their participation in the California market under an ICPM designation, the ISO should allow a supplier to make a cost-of-service filing at FERC to recover any annual revenue shortfalls. These incentives are likely to have far more adverse market efficiency and system reliability consequences for Type 2 procurements caused by local or regional capacity shortfalls, than those caused by system-wide shortfalls.

6. Concluding Comments

Consistent with our November 9, 2007 opinion on the long-term resource adequacy, we are concerned with the central role played by the must-offer requirement in California's resource adequacy policies. In a market with an increasing share of imported, energy limited, and intermittent energy, must-offer requirements become less meaningful, because these kinds of resources are physically unable to offer their capacity into the market a significant fraction of the hours of the year. We suspect that California policymakers and the ISO will soon need to explore what options exist for ensuring reliable grid operation beyond the currently constituted must-offer paradigm. As noted above, the authority to make a Type 1 ICPM procurement can assigned to the CPUC, which essentially eliminates the need for the ISO to engage ICPM procurement before the compliance year for all CPUC-jurisdictional entities. This leaves the Type 2 designation of previously "surplus" units under the ISO's discretion. This capacity is

[6] We note that the ISO proposes to scale this annual payment to the time and duration of the ICPM procurement using monthly shaping factors which could make this statement less likely to be true.

already available to operate, so the Type 2 designation is to ensure this capacity adheres to the must-offer requirement. If the redesign of the market and RA policies allows the ISO to move beyond a must-offer requirement to focus on the provision of specific operating reserves, then the need for Type 2 ICPM procurement can also be eliminated. However, before this is done we recommend that the ISO determine what changes to its short-term operating reserve procurement process are necessary to ensure that adequate operating reserves are available for reliable grid operation in the absence of a must-offer requirement.