Southern California Edison's (SCE's) Comments on the CAISO's Draft CRR Study 2 Proposed Processes, Input Data and Modeling Assumptions

Overall Comments

SCE appreciates the opportunity to comment on the CAISO's draft CRR Study 2 Proposed Processes, Input Data and Modeling Assumptions dated February 5, 2004. SCE looks forward to working with the CAISO and stakeholders to ensure that CRR Study 2 results in an equitable methodology for allocating CRRs to LSEs. Overall, SCE's comments are driven by the concern that key policy issues are being "assumed" for the sake of moving forward with CRR Study 2. In addition, the CAISO's current objective function used to allocate CRRs is not acceptable and must be modified to reflect the relative value of a CRR to an LSE. SCE's recommendations, including a revised objective function, are provided below.

Policy Issues Must Be Vetted Before CRR Study 2 Begins

It appears that CAISO Study 2 assumptions are being made regarding policy issues that have not been vetted, in some cases conflicting with specific direction provided by FERC in its October 28, 2003 MD02 Order. This sets up the possibility of CRR Study 2 results driving policy decisions simply because there may not be enough time to re-run the studies before the MD02 tariff filing. The CAISO should ensure that key policy issues are vetted before CRR Study 2 locks in its assumptions, including the following issues:

- ***Treatment of Existing Transmission Contracts (ETCs):*** In Section 2.7.1 of its CRR Study 2 draft document, the CAISO says that "it recognizes that the question of how best to enable ETC loads to hedge their congestion cost risks under the MD02 proposal is open for discussion with stakeholders in a forthcoming process on the CAISO's ETC proposal." Indeed this statement is consistent with FERC's October 28, 2003 MD02 Order that FERC required the CAISO to "conduct further analysis of the (CAISO ETC) proposal that will demonstrated the likelihood of ETC holders experiencing a diminution of contractual rights if the revised scheduling process is adopted." FERC goes on to state that "it would be appropriate for the results of this analysis to then be presented to stakeholders and interested parties for further consideration and discussion." Since this stakeholder process has not yet taken place, it is inappropriate for the CAISO to assume a certain treatment of ETCs in CRR Study 2 for the sake of moving the study forward. For example, it is premature (and in our view, inappropriate) to assume PTOs will take on an additional risk of obtaining obligation CRRs in order to honor their ETCs. The policy issue of the treatment of ETCs must be vetted before assumptions about ETCs are made in CRR Study 2.

- ***Timing of CRR Studies*** – It appears from the CAISO's comments that CRR Study 2 will not be completed until around November of 2004. Given the CAISO's plan to file MD02 tariff language in January 2005, it also appears that the CAISO views CRR Study 2 as the last study conducted before tariff language is ruled upon by FERC. SCE believes that CRR Study 2 should be used as a learning tool for improving CRR allocation to LSEs and does not feel it would be beneficial to lock-in CRR allocation based only on the results of CRR Study 2. The CAISO should ensure that the timing of CRR Study 2, the CAISO's tariff filing for MD02, FERC's expectation of the CRR stakeholder process per their

October 28 MD02 Order, and potential additional CRR studies are in sync with a Fall 2005 MD02 implementation.

- ***Objective Function to Allocate CRRs*** – The CAISO's objective function to maximize the amount of CRRs in terms of MWs, after taking into account the priority provided for ETCs, will not result in the most beneficial allocation of CRRs to LSEs. Maximizing the amount of CRRs based on shift-factors does not permit LSEs to indicate their relative priority of CRRs (e.g. a CRR from A-B is worth more to an LSE than a CRR from C-B) nor does it permit the CAISO to determine the relative priority of one LSE to another (e.g. a CRR from A-B is worth more to LSE-1 than it is to LSE-2 even though both LSEs request the same CRR). While the concept of Network Service Rights (NSRs) appears to provide an allocation mechanism that includes priorities and multiple sources for a given LSE's load, the CAISO does not seem confident that its software will include NSR functionality in time for CRR Study 2. SCE provides an alternative recommendation to the CAISO's objective function, below.

SCE's Recommended Objective Function

SCE proposes that the CAISO change the objective function for allocating CRRs in CRR Study 2 to one that was used by PJM during its most recent allocation process.[1] That is, the objective function should consider 1) a priority ranking assigned by the CRR requestor (the LSE), 2) the relative size of the CRR request, and 3) the shift factors associated with the CRR request. In the event that there is insufficient network capacity to accommodate CRR requests from multiple LSE's, after considering priority, the CAISO would prorate CRRs in proportion to the MW level requested and in inverse proportion to the effect on the binding constraint (i.e. their relevant shift factors).

SCE proposes that LSEs requesting CRRs assign a Priority Level of 1 to 4 to each CRR requests (Priority Level 1 is the highest priority; Priority 4 is the lowest priority). Requests in each Priority Level cannot exceed 25% of the total amount of CRRs the LSE is eligible to request. The CAISO would run a Simultaneous Feasibility Test (SFT) that uses the Priority Levels to allocate CRRs with higher priority first before allocating CRRs with lower priority. For example, if there is a binding constraint, the CAISO would first use Priority 4 requests to eliminate of the constraint. If, after utilizing all effective Priority 4 requests the constraint remains, the CAISO would utilize Priority 3 requests to eliminate the constraint, continuing on to Priority 2 and finally Priority 1 requests until the constraint is eliminated.

Within a Priority Level, requests impacting a binding constraint would be prorated until the constraint is eliminated. The CAISO will prorate CRRs in proportion to the MW level requested and in inverse proportion to the effect on the binding constraint. That is

[1] While PJM's most recent allocation process was for FTR auction revenues, the same concept can be used to allocate the rights (CRRs).

the reduction of LSE1 = (LSE1 CRR request * LSE1 shift factor)/(LSE2 CRR request * LSE2 shift factor)*the reduction of LSE2.[2]

SCE believes this proposal is consistent with the methodology utilized by PJM and thus should be able to be implemented with the CAISO's current software. By allowing LSE's to assign Priority Levels, the LSE's can assign a higher relative value to their request that reflects their own assessment of potential congestion charges. This would be an improvement over the objective function proposed by the CAISO in the CRR Study 2 draft document which looks only at maximizing the quantity of CRRs based on shift factors, irrespective of the relative value placed on CRRs by LSEs. SCE believes this proposal should not pose significant implementation issues. The CAISO has indicated that its current software is capable of utilizing priorities. SCE also proposes changing the objective function (within each priority level) to consider both effectiveness and the relative size of the request. We understand that this is the exact objective function utilized by PJM and thus we expect the CAISO can likewise implement this objective function.[3]

Additional Comments on the CRR Study 2 Draft Document

CRR Study Objective (Section 1.1)

Concern

SCE is concerned that the CAISO's two main study objectives do not sufficiently address the equity and efficiency of the CRR allocation methodology. The CAISO's first objective is to estimate the extent to which the CRR requests submitted by LSEs can be fully allocated. This does not provide any consideration as to how the CRRs are allocated (i.e. an inequitable methodology could still permit the CAISO to meet its first objective). The CAISO's second objective is to address questions of CRR effectiveness in hedging congestion costs (i.e. determine the extent to which allocated CRRs can hedge congestion costs over the course of a year for an LSE). As explained in more detail in our comments on Section 3, LSEs, not the CAISO, are best positioned to determine the extent to which they believe their CRR allocations hedge them against congestion charges.

Recommendation

The CAISO should revise the objective of CRR Study 2 to the following: Develop an equitable methodology for allocating CRRs to LSEs that provides LSEs a reasonable opportunity to obtain the CRRs they need to hedge congestion charges and demonstrate to market participants that the methodology can be implemented with the CAISO's software.

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[2] SCE has also provided an MS Excel spreadsheet that demonstrates how the CRRs would be allocated among two LSEs based on their CRR requests and shift factors.

[3] Although this proposal will improve the likelihood that LSE's are allocated higher-priority CRRs, it may do so by eliminating a significant number of lower priority CRRs. As a result it may be appropriate, after the completion of the initial allocation, to run a secondary allocation. This secondary allocation would honor the results of the initial allocation but would provide LSEs an opportunity to request different CRRs, subject to their allocation eligibility, to improve the efficiency of the allocation process.

Network Model (Section 2.3) and Operating Constraints (Section 2.4)

Concern

The proposed use of a DC model is dependent upon the CAISO being able to translate "AC" constraints (e.g. voltage limits, stability limits, Southern California Import Nomogram or SCIT) to DC equivalents. These translations will potentially have significant impacts on the amount of CRRs available to LSEs. The CAISO states that it will "investigate the use of additional constraints and contingency analysis in the SFT." This commitment is not sufficient because it provides too much uncertainty as to what constraints will be modeled in CRR Study 2. The constraints that are modeled will have an impact on the quantity and perceived value of the CRRs that an LSE is being allocated. While the CAISO believes it can make these translations, it has not been able to do so to date (the CAISO has indicated that a white paper is forthcoming on the translation of these operating constraints).

Recommendation

The CAISO should provide details on what CAISO grid operating constraints that result from AC operations will be incorporated in the passive DC model. The goal of CRR Study 2 should be to model (or translate) all constraints that will be modeled in the CAISO's day-ahead IFM. If such modeling is not possible, then the CAISO should specifically identify the constraints that will and will not be included in CRR Study 2. There should be greater transparency and certainty of the constraints being modeled in CRR Study 2.

CRR Types (Section 2.6)

Concern

This section briefly discusses the CAISO's concept of Network Service Rights (NSRs). SCE understands the term NSR is actually an allocation method that would allow LSEs to identify multiple sources, with priorities, for their sinks. The CAISO's software would then optimize the allocation of point-to-point CRRs to LSEs based on priorities and shift-factors. This NSR approach avoids the potential problem of an LSE not receiving any CRRs for its sink due to shift-factors alone. This approach does have the benefit of incorporating priorities that allow LSEs to have the ability to get a "next best" CRR if their preferred CRR wasn't available. The concern, however, is that the CAISO doubts that its software will have NSR functionality in time for CRR Study 2.

Recommendation

SCE suggests that the CAISO refer to all CRRs as point-to-point CRRs and clarify that the NSR concept is an allocation methodology for point-to-point CRRs, not a different CRR product. SCE believes CRR Study 2 should incorporate LSE Priority Levels and has proposed an alternative that we believe can be implemented with the CAISO's existing software. The CAISO should provide an update to stakeholders on the status of the software changes needed to implement the NSR allocation approach.

PTOs That Are Party to ETCs (Section 2.7.1)

Concern

It is premature (and in our view, inappropriate) to assume PTOs will take on an additional risk of obtaining obligation CRRs in order to honor their ETCs.[4] Relying on the allocation of CRR obligations to PTOs to provide PTOs with a mechanism to hedge congestion charges associated with LMP inappropriately assigns a risk to the PTO. The CAISO's assumption also ignores the October 28, 2003 FERC MD02 Order that directed the CAISO to conduct a stakeholder process to address the treatment of ETCs.[5] The CAISO has provided no assurance that if a PTO, in taking on this new obligation, is required to pay more congestion charges than it receives in congestion revenue, the PTO will be able to recover all of those costs. The CAISO has also not justified why PTOs should be assigned CRR obligations while ETC holders that convert their rights are allowed to receive CRR options under the CAISO's proposal.

Although SCE disagrees with the CAISO's proposal, even if the concept of assigning CRR obligations to hedge congestion charges associated with ETCs is adopted, the CAISO proposal does not ensure that the Scheduling Coordinator (SC) that is obligated to pay the congestion charge is the entity that receives the CRR. For example, SCE has some ETCs where the ETC rights holder uses an SC other than SCE to schedule transactions on the CAISO grid. If SCE, as the PTO, receives the CRR obligation, there would be a disconnect between the entity paying the congestion charge (the SC of the ETC holder) and the entity with the CRR obligation (SCE).[6]

Recommendation

The CAISO must coordinate its CRR Study 2 with its ETC stakeholder process to review the overall treatment of ETCs in MD02. SCE does not support the CAISO making policy assumptions for the sake of moving forward with CRR Study 2. SCE strongly opposes a PTO being required to take on additional risks post MD02 in order to "honor" ETCs.

Converted Rights (Section 2.7.2)

Concern

The CAISO's proposal to permit new PTOs with Converted Rights to select option CRRs does not provide comparable treatment to LSEs associated with "new" and "old" PTOs. In its October 28, 2003 MD02 Order, FERC said "We approve of the CAISO's proposal to offer to the holders of ETCs either obligations or options, as an incentive to convert." However, New PTOs have already "converted" – that is why they have Converted Rights.

[4] It is also not acceptable to provide PTOs the choice of not requesting a CRR obligation in the allocation process. PTOs should not be required to assume additional risk (i.e. congestion charges in an LMP system, with or without obligation CRRs), to honor ETCs, particularly without assurance of cost recovery.

[5] As an initial step, however, the Commission requires that the CAISO conduct further analysis of the proposal that will demonstrate the likelihood of ETC holders experiencing a diminution of contractual rights if the revised scheduling process is adopted. We believe that it would be appropriate for the results of this analysis to then be presented to stakeholders and interested parties for further consideration and discussion. We will be in a position to provide a definitive ruling on the ETC proposal only when further details have been settled and submitted for our consideration.

[6] If the CAISO is assuming that PTOs will be required to be the SC for all ETCs under MD02, this assumption is unfounded. The treatment of ETCs in MD02 is still an issue that needs stakeholder discussion.

Recommendation
The CAISO must coordinate its CRR Study 2 with its ETC stakeholder process to review the overall treatment of ETCs in MD02. SCE does not believe the CAISO has provided justification for treating CRR allocation for LSEs that have Converted Rights differently from CRR allocation requests from LSEs without Converted Rights.

LSEs (Section 2.7.3)
Concern
The CAISO's proposal to explicitly model actual source locations for contract energy, based on input from Market Participants and historical scheduling data, instead of using a trading hub, appears to unnecessarily limit LSE options for requesting CRR allocations. If an LSE has a contract to receive energy at a hub (e.g. SP15), it is not appropriate to assume the source of that delivery for 2005 will be consistent with the source of that delivery in 2003.

Recommendation
The CAISO should eliminate its proposal to explicit model actual source location for hub delivery contracts. LSEs, through their requests, are best positioned to analyze the delivery risks associated with their contracts. Historical scheduling data is not necessarily a relevant proxy for future deliveries. By eliminating the historical scheduling data component of the CAISO's proposal and relying on LSEs to make their own judgments, the CAISO will have satisfied the first part of its proposal – "input from Market Participants".

Merchant Transmission (Section 2.7.4)
Concern
It is not clear why the CAISO is including merchant transmission in CRR Study 2 – a study whose purpose is to allocate CRRs to LSEs.

Recommendation
The CAISO should identify all entities that have paid for merchant transmission that will be in service 2005 for which there is an agreement that the entity will receive CRRs. If there are no such entities, then there is not a need for the CAISO to spend its resources developing an allocation methodology for merchant transmission for CRR Study 2. If the CAISO is trying to determine how to handle the case where an entity has paid for the entire cost of a transmission upgrade and has received FTRs (i.e. the costs of the upgrade are not being recovered through a PTOs TRR), then the CAISO should revise this section to address this very limited circumstance (i.e. how to translate these FTRs to CRRs).

Simultaneous Feasibility Test Process (Section 2.9)
Concern
SCE agrees that it is reasonable to offer a mix of annual and monthly CRRs. However, it does not seem appropriate to reduce the grid capacity by scaling all operating constraints by 75% (across the board) in order to limit the amount of CRRs available on an annual basis. Annual CRRs are the longest term congestion hedging product being offered by

the CAISO. Since many LSEs are being required by their local regulatory authority to make longer-term commitments to meet resource adequacy requirements, SCE believes that the network capability should not be reduced to ensure that more monthly CRRs are available.

Recommendation
The CAISO should consider implementing its 75% annual/25% monthly CRR split by reducing the amount of CRRs that an LSE can request to 75% of its peak load for the annual CRR and 25% of its peak load for monthly CRRs. This approach will ensure that the entire network capacity is modeled allocation in both the annual and monthly allocations. Note also that the monthly capacity ratings may be higher than the ratings used in the annual CRR allocation due to seasonal or contractual differences (e.g. ETC for summer months would have to be modeled as available for the entire year in the annual CRR allocation but could be removed for the non-summer months in the monthly CRR allocation).

Assumptions for LMP Calculations (Section 3)
Concern
SCE is concerned that too much weight may be given to the CAISO's use of LMP studies to justify the hedging coverage of an LSE's portfolio. The CAISO's premise is that the LMP studies will demonstrate how well an LSE is hedged over the course of a year by its CRR allocations. However, only an LSE can determine how well it is hedged. Each LSE has its own view of risk tolerance and market assumptions. For example, the CAISO's LMP/CRR study could show that, over the course of year, an LSE is hedged against congestion charges. However, the LSE may place different levels of uncertainty on the dispatch scenarios performed by CAISO. The CAISO study may show that an LSE cannot hedge $3.0 million of congestion in the summer but receives $3.0 million more congestion revenue than it needs to hedge itself in the winter. Thus, over the course of the year, the LSE is perfectly hedged. However, from an LSE perspective, a slight deviation in summer conditions may change its congestion position from $3.0 million short to $5.0 million short while the winter congestion forecast may be more robust. Thus, from a risk-adjusted LSE perspective, the LSE will not believe it is fully hedged against congestion charges. The LSE could also disagree with the market conditions modeled in the CAISO's LMP calculation (e.g. hydro conditions, gas prices, load forecast, bidding behavior, etc.).

Recommendation
While SCE does not object to the CAISO performing an LMP study to provide a data point in the CRR study process, SCE cautions the CAISO from creating an expectation that the results of an LMP study will somehow demonstrate that an LSE will be hedged at a given level based on its CRR allocation. The primary focus of CRR Study 2 should be to develop an equitable methodology for allocating CRRs to LSEs that provides LSEs a reasonable opportunity to obtain the CRRs they need to hedge congestion charges and demonstrate to market participants that the methodology can be implemented with the CAISO's software. The CAISO should ensure that its resources are assigned accordingly.