Following is the ISO response to comments provided by PG&E related to Congestion Revenue Rights Study 2. ISO responses follow each of the comments.

In response to the CRR Study 2 Process, Data and Modeling Assumptions issued Feb. 5, 2004 and a number of CRR stakeholder conferences in April and May, PG&E offers the following comments for consideration in finalizing the objectives of CRR Study 2. The cornerstone of MD02 is LMP, and the viability of LMP depends on the adequacy of CRR hedging. PG&E will be fully participating in this upcoming study and looks forward to the initial CRR results and cost implications.

Objective Function

The ISO has stated several times that the objective of the CRR allocation would be to maximize the awarded mws of CRRs, and also has stated that the ISO would seek to achieve financial neutrality of CRRs. In stakeholder discussions it has not been clear to what degree the ISO will pursue the second objective. The ISO has requested that they would revisit the issue of exactly what and how they will undertake the process to assure financial neutrality upon receipt and review of the CRR allocations requested buy LSEs.

PG&E is concerned about possible the methods, criteria and equity of any process that the ISO implement to redistribute the financial benefits and costs between CRR holders. PG&E will reserve comment on the ISO approach once the ISO defines and issues what they are planning to do in this regard. However PG&E would recommend that the ISO develop as soon as possible the upfront, transparent standards that would be applied on the CRR allocation process. Would neutrality be measured on an hourly, monthly or yearly basis? Would allocation adjustments be made pro-rata or point-to-point CRR specific? Would adjustment be made only a priori on the allocation requests, or would financial neutrality also extend to an expost adjustment to CRR balancing accounts? PG&E's CRR requests may be influenced and better optimized knowing the rules for financial neutrality that the ISO will be applying.

PG&E's concern has been increased with the recent ISO issuance on May 26, 2004 of a draft of the CRR Validation Rules in which it suggests that allowing LSEs to request CRRs with a profit-maximizing objective would be incompatible with a CRR allocation philosophy. An example was included that indicated that LSEs requesting only positive value CRRs and not requesting negative value CRRs would lead to a reduction in CRR allocations and have the potential to create both revenue adequacy and revenue fairness concerns. These are valid concerns, but only serve to emphasis the need for transparency of the ISO implementation of their financial neutrality objectives and what is meant by 'CRR allocation philosophy'.

ISO Response

The underlying objective in allocating CRRs to LSEs is to provide a financial hedge against congestion charges. Since these CRRs are provided without cost to the LSE, the ISO view is that these CRRs should not go beyond providing a congestion hedge. That is, CRRs should not be allocated in such as way as to generate profits for some LSEs at the expense of other LSEs. That said, the question of how to achieve this objective in practice is still an open issue that cannot be fully resolved up front, prior to seeing the results of CRR Study 2. The ISO has therefore proposed to perform Study 2 allowing LSEs to request as many CRRs as they would like, up to the upper bound based on the load duration curve as described in the study document. Once we complete the allocation process based on these requests and evaluate their financial implications, we can then assess whether any "scaling" of CRR allocations is necessary and appropriate. In the mean time, the policy question of how best to achieve the financial neutrality objective, including potential methods for scaling CRR allocations, will be a topic of discussion in the continuing stakeholder process this summer.

We propose to take a similar approach to the question of whether to require LSEs to accept CRRs that may have negative value. The examples in the May 26 document are offered only to illustrate the theoretical concern, but we cannot know whether this concern is significant in practice until we see the study results. Therefore, for the purpose of CRR Study 2 we will not require LSEs to request or accept CRRs they do not wish to hold. We will then use the study results to assess the impacts of this approach.

The ISO agrees that clear objectives and transparent, equitable allocation rules are essential to the success of the CRR allocation process. The dilemma we face is that we cannot assess the financial impacts of any particular set of allocation rules without further empirical studies, yet we must make some assumptions about allocation rules in order to conduct such studies. The ISO appreciates the willingness of participants to work with us, in the face of this dilemma, to provide CRR requests that will lead to useful study results.

Priorities for CRRs Allocation Requests

It is not clear if the ISO will offer network service CRRs or not. Some uncertainties seemingly exist with the CRR software capabilities that are available to the ISO. One desirable feature of network service CRRs is that they enable LSEs to associate some degree of priority to their CRR requests. PG&E supports the option of having network service CRRs and would like to see the ISO offer these for the Study, alternately we would support an explicit prioritization scheme for point-to-point CRRs such as the 4-tier proposal submitted by SCE.

ISO Response

The ISO agrees that having the capability to offer network service rights to Market Participants for purposes of CRR Study 2 would be ideal. However, as mentioned during stakeholder meetings, this functionality does not exist on the CRR system being used by the ISO for CRR studies. In fact, although the ISO has formulated the methodology for such functionality, the vendor has not yet developed it as a feature in its software. Once the ISO enters into a contract with the software vendor to design the CRR auction system, the vendor will be asked to place a high priority on development of this functionality. Due to the required time for the vendor to develop this functionality, it is likely that it will not be available in time for CRR Study 2. The study will, however, adopt the four-tier prioritization scheme as proposed by SCE.

It is important to keep in mind that, without network service rights functionality, point-to-point CRR allocation quantities resulting from the Study will be on the lower, conservative side as compared to allocation quantities that would be expected when Market Participants utilize network service rights.

Terms of CRRs

Ultimately the duration of CRRs should be greater than the proposed one year. To the extent that LSEs must demonstrate resource adequacy and secure energy on a multi-year horizon, it is appropriate to consider the release of similarly long-term CRRs to match these transactions. While arguably these long-term CRR would not be necessary since an LSE could re-request the same CRRs every year, there is no assurance that equivalent CRRs would be made available by the ISO due to either actions by other LSEs or with the ISO undertaking program changes. Greater hedging certainty will enable longer-term transactions that will in turn lead to greater operational certainty for the ISO. Within the study framework of CRR Study 2, annual CRRs are OK. Within an annual CRR framework, PG&E would have a preference for 12 one-month term CRRs (at 75% of network capacity) followed by 12 individual one month term CRRs.

ISO Response

Consistent with the request made by Market Participants during recent CRR discussions, the ISO plans to allocate CRRs with 12 one-month terms as you suggest (using 75 % of the network capacity) followed by 12 individual one month "true-ups".

Residual Auctions

The ISO has proposed to run residual auctions after the conclusion of the annual CRR allocations process and again after the close of the monthly CRR allocations.

ISO Response to PG&E Comments – Congestion Revenue Rights Study 2

Greater clarity and assurance is needed from the ISO that the annual residual auction will not encroach and diminish the quantity of CRRs that would have otherwise been made available in the monthly CRR allocation process. The ISO has proposed to limit the annual allocations to 75% of network capacity, reserving the last 25% for the monthly allocations. If an LSE required a 100mw CRR hedge, ideally they would be awarded 75mw in the annual process and the remaining 25mw in the monthly process. However, if the ISO conducts a residual CRR auctions at the conclusion of the annual allocations, with this example, some portion of the remaining 25mws may have been sold in the auction and subsequently not available to the LSE in the monthly process. The ISO should restrict the available mws of CRRs in the residual auction to respect anticipated LSE monthly requests. This suggested practice should be applied in the actual CRR process as well within the context of this study. If the ISO does not appropriately limit the residual auctions, then the 75% annual limit should be re-examined.

ISO Response

The concern raised above is addressed by the fact that the annual auction will be limited to the same network capacity that is available for the annual allocation. That is, the capacity of the network will be derated to 75 percent for running the annual allocation process, and once this process is completed, the same network capacity limits will be retained for the annual auction process. Thus the total CRRs released in the two sequential annual procedures must be feasible within 75 percent of the network capacity. This will ensure that the annual auction does not encroach upon the 25 percent of capacity that is reserved for the individual monthly allocation and auction processes.

DWR Sellers Choice Contracts

As the ISO is well aware, the majority of the legacy DWR contracts representing over five thousands mws have no fixed and specific delivery locations, these sellers choice contracts do not lend themselves to CRR hedging. While a number of stakeholder meetings have been held to discuss possible scheduling alternatives for these contracts that would minimize the adverse impacts under LMP, to date no firm solutions have been established. For the purposes of the ISO study, PG&E will endeavor to provide best guesses for the delivery location for each of the DWR contracts, but in fact, due to the sellers choice flexibility, the study results may not predict the real congestion cost impacts of these contracts. PG&E recommends that the ISO push forward in defining improved scheduling protocols that would address the DWR contract deliverability issue. With this resolved, the ISO CRR study would provide more realistic results and the cost impacts of the DWR contracts would be known. PG&E notes that DWR has estimated that these contracts may cost an added \$13 billion under LMP without adequate revisions to scheduling procedures and without adequate CRR hedging.

ISO Response to PG&E Comments - Congestion Revenue Rights Study 2

PG&E would like the ISO to explore an earlier PG&E recommendation that DWR contract suppliers be allocated CRRs from their chosen sources to a trade hub consistent with the present zonal delivery locations. This compromise approach would avoid any excessive new costs for the utilities, and would greatly encourage suppliers to pre-designate their sources, both protecting their deliveries from new congestion charges and also enabling increased amounts of feasible CRRs.

ISO Response

The ISO appreciates the difficulty in anticipating the possible sources for energy to be supplied under the DWR sellers choice contracts and appreciates PG&E's willingness to provide the ISO with its "best guess" of delivery locations when requesting CRRs for CRR Study 2. The ISO also plans, consistent with PG&E's comments, to continue to pursue solutions to the State contracts issue.

The ISO agrees that the proposal to allocate CRRs to contract suppliers from the generation source to the trading hub has merit. This idea will be considered, along with other ideas, as we work though the issues surrounding these contracts.

Metered Sub Systems

The treatment of MSSs with respect to CRR allocation should be consistent with the MSS election of their scheduling and settlement treatment. If an MSS has chosen for net scheduling, then any CRR allocations should be based on netted load. Only MSSs that elect to schedule and settle on a gross basis would be allocated CRRs based on their gross loads.

ISO Response

This is the ISO's proposal at this time.

Load Aggregation

PG&E supports load aggregation as proposed by the ISO. Scheduling and settlement of all loads within the footprints of the respective PTO correctly addresses the historic grid design paradigms and tradeoffs implemented under the vertically integrated utilities. For the purposes of the study, the ISO has proposed to disaggregate the load aggregation areas into smaller load groups. PG&E supports this but recommends that the ISO use as many smaller load groups as possible, limited only by practical limitations imposed by modeling execution time, since this will increase the accuracy and availability of CRRs. Dis-aggregation improves the availability of CRRs resulting from the study. While there has been some stakeholder debate if the ISO should or should not re-aggregate these smaller load areas, it is clear that re-aggregation would be needed to address the requirement to schedule and settle all loads at the appropriate PTO aggregation.

ISO Response

ISO Response to PG&E Comments - Congestion Revenue Rights Study 2

The ISO appreciates that PG&E recognizes the value in disaggregation. We agree that such disaggregation should be done to the extent possible within practical limits to improve the availability of CRRs. At the same time, other parties have commented – and the ISO recognizes this point – that re-aggregation of CRRs for settlement may result in CRR revenue inadequacy. The problem is rooted in the fact that CRRs that are simultaneously feasible when the sink side is disaggregated may not be simultaneously feasible when the sink side is re-aggregated. Absent simultaneous feasibility there is no guarantee that the congestion charges collected in any given hour will be sufficient to cover CRR settlements for that hour. One possible solution to this problem is to allocate CRRs without re-aggregating, by defining their sink as the smaller disaggregated area rather than the larger load aggregation point. CRR Study 2 will provide the empirical information we need to evaluate the impact of this concern.

Treatment of Non-ISO Transmission

It is unclear to PG&E how the ISO will treat non-ISO transmission. Particular uncertainty exists with the COTP and PACI with respect to WAPA intentions. PG&E request that the ISO provide additional details within the CRR Study 2 so that we can better understand the implications to both our CRR requests across COI and CRRs adequacy in general.

ISO Response

The ISO plans to provide details of how non-ISO transmission is treated in its CRR Study 2 write-up, as requested. In addition, as the WAPA situation becomes more clear we will be better able to discuss the WAPA impacts.

Data from the ISO

In order to make proper CRR allocation requests to the ISO in support of the CRR Study 2, PG&E has requested some supporting data including forecast hourly nodal prices at all generation nodes and forecast hourly load aggregation prices for the study period of 2006. It is PG&E's understanding that the ISO will provide this data.

ISO Response

In the first half of July the ISO plans to release its next LMP study, which will provide hourly LMPs for the period November 2002 through October 2003. Unfortunately it will not be possible for the ISO to provide projected LMP estimates for 2006 in time to inform the CRR requests needed for CRR Study 2. The ISO's timeline for completion of CRR Study 2 requires that data gathering (i.e., CRR allocation requests from LSEs) occur between the last week in June and end of July 2004. The results of the CRR LMP study, which will include projected LMP estimates for 2006, are not expected until the end of September 2004.

ISO Response to PG&E Comments - Congestion Revenue Rights Study 2

ISO Allocation Rules for CRRs

PG&E will provide comments to the ISO proposed CRR Allocation Rules when they are finalized and made available by the ISO.

ISO Response

The ISO appreciates PG&E's willingness to provide comments on the CRR allocation rules when made available by the ISO for comment.