May 3, 2017

The Office of Ratepayer Advocates (ORA) is the independent consumer advocate within the California Public Utilities Commission (CPUC), with a statutory mandate to obtain the lowest possible rates for utility services consistent with reliable and safe service levels, and the state’s environmental goals. The following are ORA’s comments and recommendations on the CAISO's Congestion Revenue Rights Analysis Working Group Meeting on April 18, 2017 (CRR Workshop).

BACKGROUND
CRRs are financial rights to collect or pay for the difference in congestion costs between sources and sinks\(^1\) on the transmission network.\(^2\) CRRs are used to hedge possible congestion charges in the Day-Ahead Market, to mitigate price volatility, and to allow the ratepayers who pay for the transmission system through the transmission access charge (TAC) to receive funds to offset transmission costs.\(^3\)

The CAISO allocates CRRs to Load Serving Entities (LSE) based on each LSE’s load, transmission capacity, and nominated quantity through an annual, monthly and 10-year allocation process. The CAISO also offers the remaining portion of the CRRs on an annual and monthly auction based on presented bids and available transmission.\(^4\) Auction CRRs are primarily purchased by financiers and marketers and not LSEs. After the CAISO settles the Day-1

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\(^1\) The source is the point at which energy is injected, while the sink is the point at which energy is removed. *Overview of Congestion Revenue Rights in the New California Energy Market*, March 21, 2006, Scott A. Jercich, CAISO, presentation slide 9.

\(^2\) Congestion occurs when load cannot be served by the lowest cost energy due to transmission constraints, and results in the use of higher cost energy to serve load. *Overview of Congestion Revenue Rights in the New California Energy Market*, March 21, 2006, Scott A. Jercich, CAISO, presentation slide 5. The CAISO’s Location Marginal Pricing method assigns a congestion cost to each of the 3000 nodes in its system.

\(^3\) *Shortcomings in the Congestion Revenue Right Auction Design*, CAISO Department of Market Monitoring (DMM), November 28, 2016, (DMM CRR Paper), p. 2.

Ahead Market, entities holding CRRs receive or pay revenue to other CRR holders, depending on the actual congestion that occurred in the Day-Ahead Market.

The CAISO’s Department of Market Monitoring (DMM) raised concerns about the design of the CRR Auction in its recent paper *Shortcomings in the Congestion Revenue Right Auction Design* (DMM CRR Paper). The DMM CRR Paper pointed out that CAISO transmission ratepayers lost $520 million in the CRR auction between 2012 and 2015.\(^5\)

**CRR WORKSHOP**

The objective of the CRR workshop was to allow stakeholders to present their perspectives on the DMM’s CRR paper, and to provide input on the analysis and scope of the CRR issues. The DMM CRR paper highlighted the differences between the CRR auction prices and auction payouts between 2012 and 2015, which varied between approximately $50 million to $225 million.\(^6\) This is an issue of significant concern to ratepayers, because they funded the price difference. The workshop participants included stakeholders in the CRR allocation and auction process (LSEs operating in the CAISO jurisdiction, financiers, and marketers), although there was no presentation on behalf of independent power producers.

The CRR workshop discussion and presentations centered on three possible factors that could be contributing to the variable and significant differences between the CRR auction revenues received by ratepayers and the auction payouts. These factors included: (1) differing constraints modeled for CRR allocation/auction, and the Day-Ahead Market; (2) an oversupply of CRRs in the CRR auction; and (3) barriers to participation in the CRR auction. Regarding barriers to participation in the CRR auction, stakeholders noted that LSEs are not active in the CRR auction due to regulatory and incentive barriers.\(^7\) The quantity of CRRs available to LSEs in the CRR allocation process is also limited by CAISO’s set-asides for the CRR auctions and by restrictions on available sinks in the allocation.

Stakeholders at the CRR Workshop concluded that discrepancies between the CRR market modeling and Day-Ahead Market modeling could contribute to inefficient CRR auctions. There was widespread agreement that the CAISO should review the CRR model and Day-Ahead market model constraints, especially those with the highest reported differences between the CRR auction revenues and Day-Ahead Market congestion rents. Representatives from Pacific Gas and Electric (PG&E),\(^8\) Appian Way,\(^9\) Western Power Trading Form (WPTF),\(^10\) and the

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\(^{5}\) DMM CRR Paper, p. 2.  
\(^{6}\) DMM CRR Paper, pp.2, 9. “California ratepayers lost $520 million in the congestion revenue right (CRR) auction from 2012 through 2015. For every dollar ratepayers paid the entities purchasing CRRs in the auction, ratepayers received only $0.46 cents in auction revenues.”  
\(^{7}\) Comment of Six Cities’ representative Bonnie Blair.  
\(^{8}\) CAISO CRR Working Group Discussion on Analysis, PG&E, April 18, 2017, presentation slide 3.  
\(^{10}\) CRR Study Working Group, Ellen Wolfe, WPTF, April 18, 2017, presentation slide 11.
CAISO Market Surveillance Committee specifically recommended studying the differing constraints modeled in the CRR market versus the Day-Ahead Market. The representative of Vitol Inc. recommended studying the barriers to participating in the CRR market.

**ORA RECOMMENDATIONS**

ORA agrees that the CAISO should expedite an analysis of CRR allocation and auction model design, given the significant differences between reported auction costs recovered from ratepayers between 2012 and 2015, and possible auction inefficiencies. To evaluate the CRR auction outcomes trends, ORA recommends the CAISO provide CRR auction prices and payouts from 2009 to present. To address the possible CRR auction inefficiency, the role of 50% CRR auction set-aside amounts on Scheduling Points, which denies the CRR awards in the later allocation tiers, should also be evaluated. The CAISO analysis should also investigate whether the current auction design has any additional intrinsic advantages over an allocation process with the same market constrained sources. To this end, ORA recommends that the CAISO present a summary of the CRR allocation and auction policies from other Regional Transmission Operators (RTO). This summary should include the CRR allocation and auction limits, and CRR reservation price for auctions, if any, in other RTOs. In addition, the CAISO should respond to the request for an analysis of the other benefits CRRs provide, such as transparency and liquidity, as stated by the representative from Vitol.

To the extent that these benefits are used to justify the current auction framework, it is important to understand their magnitude and impact on ratepayers.

ORA also recommends that the CAISO provide an anticipated timeline for completion of this CRR analysis by posting a schedule, including the expected time frames for white papers (papers on the CRR allocation and auction participants, and CRR model analysis as recommended by the working group), and additional stakeholder workshops.

If you have any questions or comments, please contact Kanya Dorland at Kanya.Dorland@cpuc.ca.gov or (415) 703-1374.

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13 Both the annual and monthly allocation processes set aside 50% of the remaining Scheduling Point capacity for the auction after the initial rounds of allocation.