

Briefing on CRR Dry Run and CRR Financial Analysis

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March 7, 2007

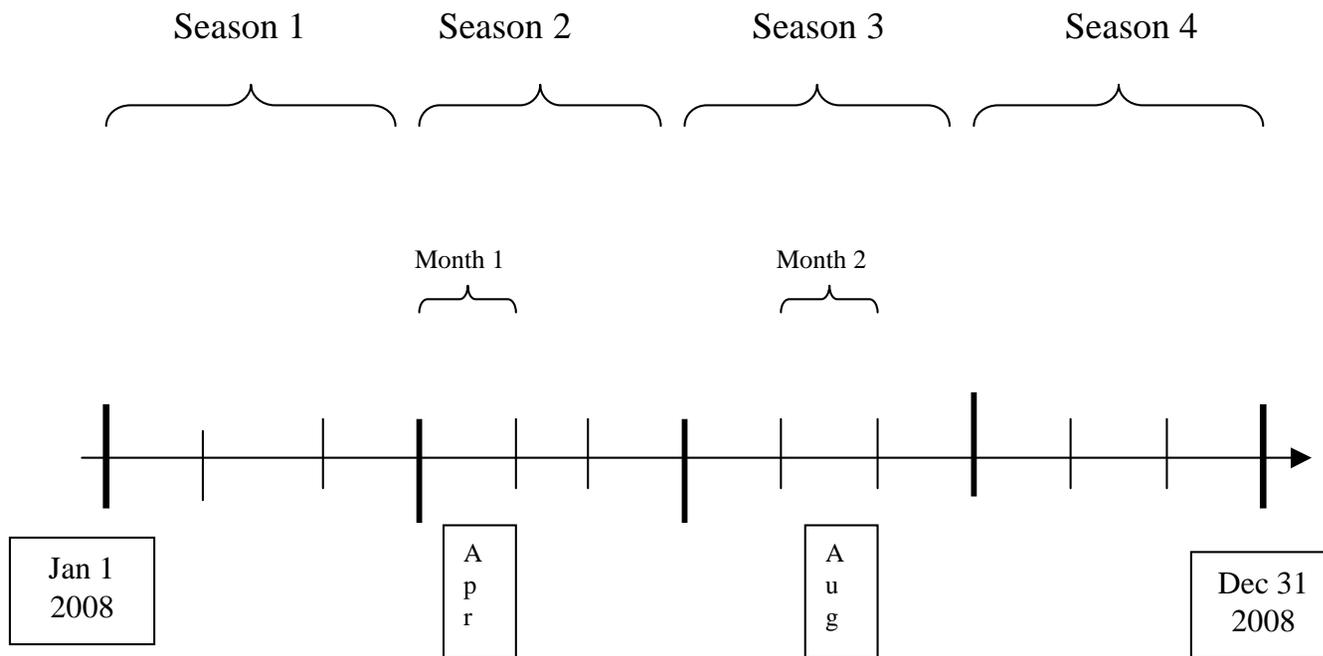
Overview of Presentation

- **Congestion Revenue Rights overview**
- **CRR Dry Run overview**
- **CRR Dry Run highlights**
- **CRR tasks to complete**
- **Aggregated allocation results**
- **CRR Dry Run financial analysis – Jim Price**

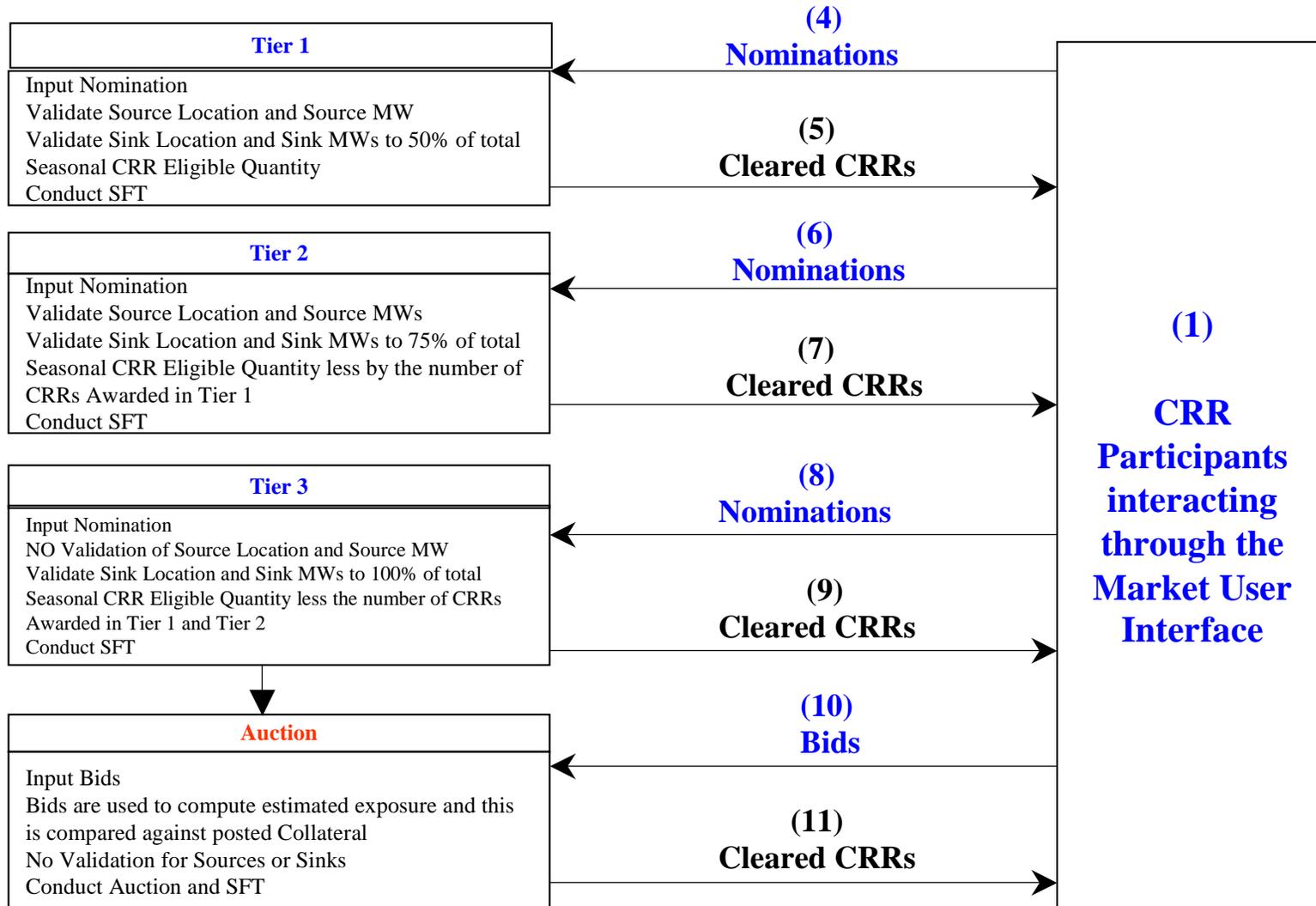
Congestion Revenue Rights Overview

- **Financial entitlement**
- **No physical scheduling rights**
- **May be obtained through allocation, auction or Secondary Registration System (SRS)**
- **Allocation available to Load Serving Entities (LSEs)**
- **External LSEs may participate in the allocation**
- **Auction open to all entities posting collateral**
- **SRS is open to registered Candidate CRR Holder**

CRR Dry Run – Market Simulation Time Period



CRR Dry Run Annual Allocation Process



CRR Dry Run Highlights

- **18 participants in allocation accounted for almost 100% of the load**
- **CRR Dry Run completed five weeks early**
- **CRR system operated extremely well**
- **List of issues being addressed through the stakeholder process that began on February 27, 2007**
 - Trading Hubs
 - Set-Aside for Import
 - Modeling of transmission outages
 - Load migration
 - Merchant transmission
 - CRR credit requirements

Aggregated Allocation Results

■ Season1 Off Peak	95%
■ Season1 On Peak	87%
■ Season2 Off Peak	84%
■ Season2 On Peak	82%
■ Season3 Off Peak	75%
■ Season3 On Peak	81%
■ Season4 Off Peak	86%
■ Season4 On Peak	89%
■ Season2 / April Off Peak	91%
■ Season2 / April On Peak	90%
■ Season3 / August Off Peak	80%
■ Season3 / August On Peak	83%

Tasks To Complete

- **CRR Dry Run report to FERC and Stakeholders on March 30, 2007**
- **Stakeholder process to discuss CRR issues during February and March**
- **Design and implement FERC Mandated long-term CRRs**
- **Start CRR Production data gathering in March 2007**
- **Start CRR Production market runs in July 2007**
 - Long term CRR allocation through 2017
 - Annual CRR allocation & auction for 2008 (Feb – Dec)
 - Monthly CRR allocation and auction for February 2008

CRR Dry Run Financial Analysis

Jim Price

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Overview of Presentation

- **Description of CRR Dry Run financial analysis**
- **Description of Congestion Cost calculation methodologies**
- **Description of CRR Revenue calculations**
- **Aggregated results**
- **Conclusions**

CRR Financial Analysis

- **CAISO will calculate financial analysis for CRR Dry Run results**
 - Analysis consists of comparing individual Load Serving Entities' (LSEs') congestion costs to their CRR payments
- **CRR Dry Run financial analysis is latest in series of reports**
 - CAISO published CRR Study 2 in August 2005
 - Included financial analysis of CRRs for CAISO system and individual LSEs, as well as evaluation of alternative CRR market designs
 - CAISO is currently completing CRR Dry Run
 - Annual and monthly allocations and auctions completed
 - Financial and MW analysis underway
- **Two methodologies for calculating LSEs' congestion costs**

Scenarios for CRR Revenue & Congestion Cost

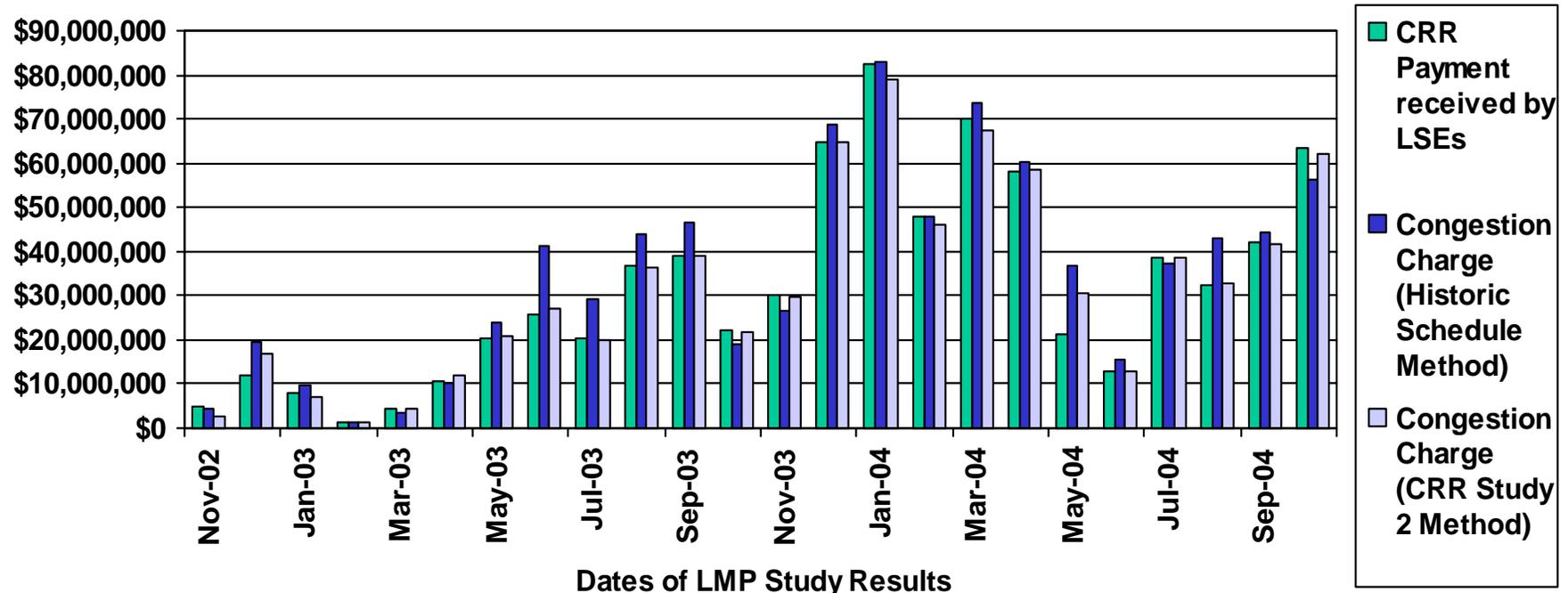
■ CRR Revenue

- Calculated hour by hour
- Equals the difference between Locational Marginal Prices (LMP) of congestion between locations of supply and load, from LMP Study, times the MW amount of the CRR

■ Congestion Cost

- CRR Study 2 Methodology
 - Assumes that LSEs have requested CRR portfolios that reflect future scheduling patterns
- Historical Market Schedules
 - Recognizes that hourly schedules can vary from “typical” portfolios
- Each method has advantages, since future LSE portfolios might not be the same as in the past, but variation exists in scheduling.

Aggregated Results (Preliminary)



- Graph shows monthly comparison of congestion coverage, for 16 LSEs, if CRRs had been awarded in the past
- CRR Payment received by LSEs is based on annual CRR allocation (allows coverage of 75% of eligible demand)
- CRR Charge paid by LSEs is based on 100% of historic schedules (75% in CRR Study 2 method)

Conclusions

- **Coverage of congestion cost depends on method used to calculate congestion costs**
 - In general, LSEs hedged better using CRR Study 2 method
 - Schedule method hedging is variable, greater than 70% hedge is common
- **What is considered fully hedged for annual allocation process?**
 - 75% of grid capacity available for annual allocation
 - 75% hedge is reasonable to expect from annual allocation
 - Monthly allocation process adds to financial coverage, and is considered separately