

RTO Rule, Congestion Management and FTRs In California

Ziad Alaywan

Managing Director of Engineering and Operations
California Independent System Operator

WMIC SEAMS WORKSHOP
SALT Lake City
June 20, 2000



CALIFORNIA ISO

Focus of Presentation

- **The California ISO Congestion Management Market**
- **Compliance of California ISO with FERC's RTO Rule**
- **The Congestion Management Reform**
- **Issues to be addressed at the Seams**



Issues to be addressed



- **Scheduling Timeline**
- **10-Minute Energy Market**
- **Ancillary Service Import**
- **FTR**

Benefits of the RTO Rule

1. Improved Grid Reliability
2. Improved Congestion Management
3. Regional Transmission Pricing
4. Elimination of Pancaked Rates
5. Reduced Transaction Costs
6. Reduce Discriminatory Transmission Access Practices
7. Better Determination of ATC
8. More Efficient Control of Unscheduled Flow
9. Facilitation of Regional Retail Access
10. More Efficient Planning and Investment Efficiency
11. Allow for Import of Ancillary Services



Market Characteristics of the California ISO Congestion Management

1. Minimizes ISO Involvement
2. Separates Transmission and Energy Markets
3. Non-Discriminatory and Comparable
4. Provides Economic Signals for Scarcity of Transmission
5. Maximizes Efficient Use of Transmission Assets
6. Allocates Transmission to Participants who Value it the Most
7. Provides Effective Information for Fair Play
8. Not a Barrier to Energy Trading



How to get transmission access

Options available to obtain transmission

1. Long Term

Firm Transmission Rights (both scheduling priority and financial)

2. Short Term

Transmission can be obtained through:

- FTR Secondary Market
- ISO daily and hourly transmission auction



The California ISO FTR

Description:

Firm Transmission Rights or FTR is a Binding Contract which Entitles the Owner or its Assignee to Receive

1. Scheduling rights to hedge against congestion costs
2. A Stream of Revenue from Potential Congestion Charges on Designated Transmission Paths.



California FTR Features

- Auctions Conducted Annually
- One Year Duration
- 1 MW Denominations
- Directional
- Divisible into Hourly Blocks for Resale in Secondary Markets
- Auction Proceeds Credited to the Transmission Owners
- ISO Facilitates Secondary Market Trades Through the SRS System



FTR Rights



- Physical Scheduling and Financial Rights in Day-Ahead Market
- Only Financial Rights in the Hour-Ahead Market
- No Rights in the Real-Time Market



California FTR Flexibility

1. Provides both Physical and Financial Rights
2. Offered on Major Arteries within the State and to the External Areas
3. ETC Rights are Honored
4. Any Entity with proper Credit may Purchase FTRs
5. FTR Owners may Sell their FTRs
6. FTR Owners may Changes Their SC Assignment
7. SCs do not need to Own FTRs to Schedule one
8. SCs May Purchase FTRs from Secondary Market
9. Owners Financial Liability is Limited to the FTR Purchase Cost

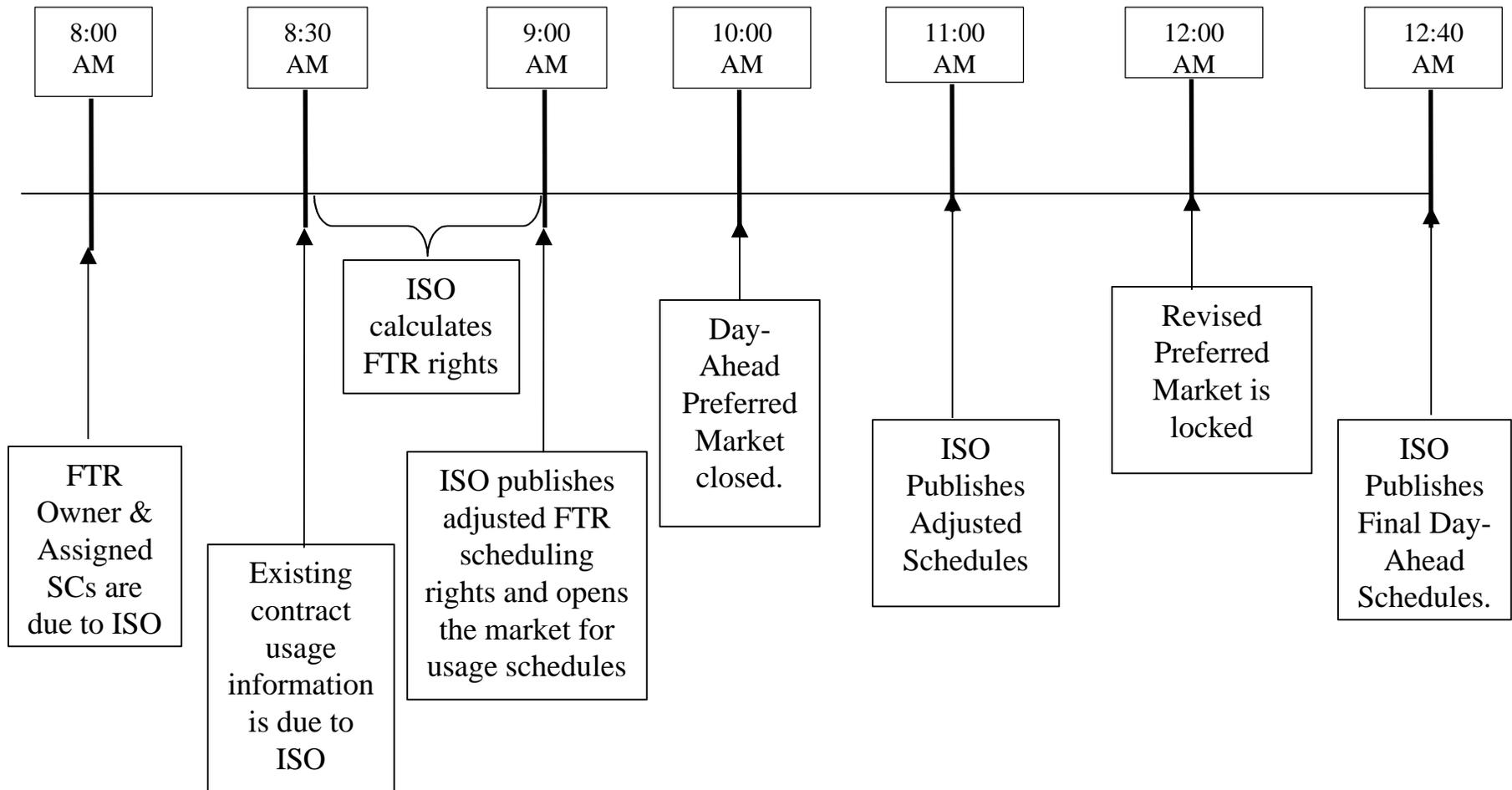


The FTR Auction Process

- Simultaneous Multi-Round Clearing Price Auction
- Conducted Separately for all Inter-Zonal Interfaces
- First Auction included 99.5% of the Available Capacity on Each Interface
- Available Capacity is the Total Capacity Less the ETCs



FTR Time-Line



Results of First FTR Auction

- Conducted in November of 1999
- 28 Participants
- Sold 9553 MWs of FTRs on 19 Transmission Interfaces
- Sold One Third of Available Capacity Within and Out of California
- 41 Million Dollars Sale
- Revenue Exceeded the Projection by 10 Million Dollars



The California ISO Daily/Hourly Congestion Management Process

1. No Congestion, No One Pays
2. When Congestion is Present, a Transmission Auction Process is Used
3. Adjustments only made When Necessary to Relieve Congestion
4. ISO Allocates Capacity on the Congested Path to SCs that Value it the Most
6. Value is Measured by the Adjustment (Inc./Dec.) Bids
7. All Users of Congested Paths are Charged at Marginal Cost
8. Overall Re-dispatch Costs are Minimized
9. Each SC's Day/Hour Ahead Schedule Remains Balanced

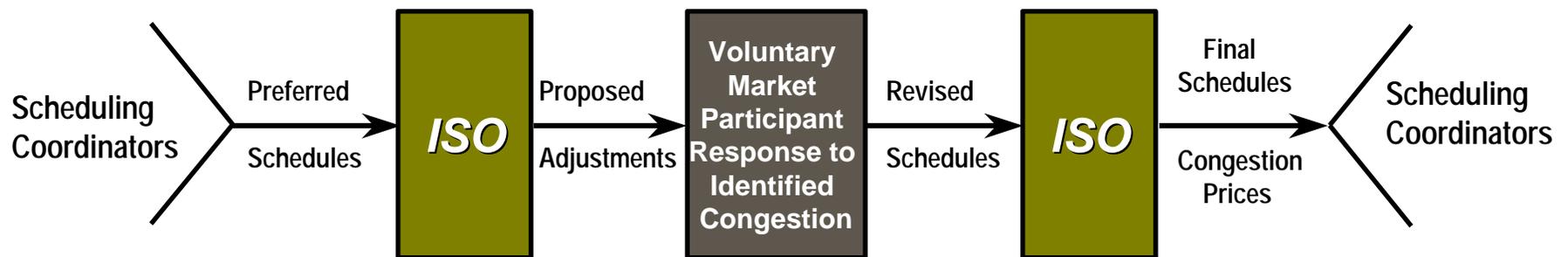
(Continued)



CALIFORNIA ISO

Participation in Daily/Hourly Congestion Management

Day-Ahead:



Hour-Ahead: ISO Neither Produce Market Advisory nor any Opportunity for the Scheduling Coordinators to Revise Schedules.

Congestion Management Reform

Develop a Comprehensive Congestion Management Solution

- Address RMR Dispatch
- Provide appropriate Locational Price Signals
- Mitigate Market Power
- Increase Market Efficiency and Transparency
- Incentive for new generation and system expansion



California ISO Compliance with RTO Rule

Compliant

- Independence
- Scope & Configuration
- Operational Authority
- Short-Term Reliability
- Tariff Administration and Design
- Ancillary Services
- Market Monitoring

Need Work

- Congestion Management -
Planning and Expansion
(expected to file 4th quarter, 2000)
- OASIS Implementation (expected
full compliance by end of 2000)
- Inter-Regional Coordination



Concluding Remarks

The California ISO :

- Conducts Market Based Process for Congestion Management
- Methodology is based on Zonal Pricing
- Offers Physical & Financial Tools to Manage the Congestion Risks
- Working Toward full Compliance with the RTO Requirements

