



CAISO CRR Meeting

April 1, 2025

Topics



- Transmission Congestion and FTR Markets
- Market Design
- Frequently Asked Questions

Transmission Congestion and FTR Markets

Value of Congestion

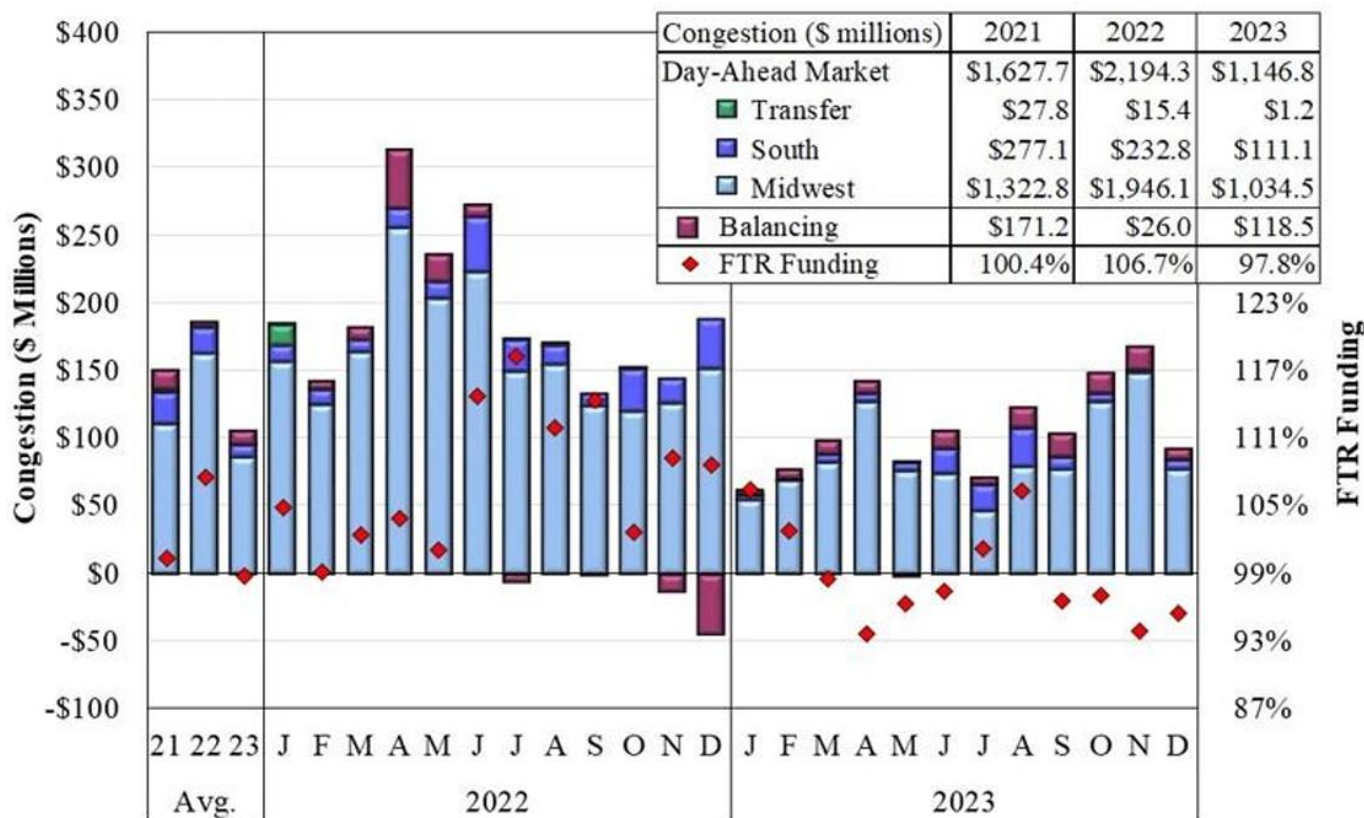
- DA Congestion
 - Marginal Value * Power Flow on a constraint
 - A measure of the magnitude of binding
- FTR Funding
 - A measure of (mis)alignment between the DA and FTR Markets
- Loop Flows
 - A measure of external flows impacting market

Putting It All Together

- Build a risk profile
 - Identify, assess, and prioritize risks
- Create a plan
 - Minimize risks by clearly defining what needs to be updated or changed
- Implement changes
 - Administer the FTR Auction
- Review and report out on results

Day-Ahead and Balancing Congestion and FTR Funding

2021–2023



Note: Funding surplus may be greater than the difference between day-ahead congestion and obligations to FTR holders because it includes residual revenue collections from the FTR auctions.

Market Design

Market Design Improvements

✓ Agree

✗ Disagree due to benefits, problem, or feasibility

▲ Requires further evaluation

			Resource Requirements		
LEI Recommendations	MISO Position	Perceived Impact	Design / Evaluation	Implementation	Ongoing Administration
Category: ARR Entitlements					
ARR entitlements based on current use	✓	High	High	High	Medium
Expanded set of nomination paths	✓	Medium	Medium	Medium	Low
Monthly allocation process	✗	Low	Low	Medium	High
Category: FTR Auction					
Additional FTR products / periods	▲	Medium	Medium	High	High
More timely outage submissions	✓	Medium	N/A	N/A	Low
Grant entitlements for expanded net capacity	▲	Low	Low	Medium	High
Category: Transmission Customer Metric					
Additional TCM (all ARR SS v. no ARR SS)	✗	Low	Low	Low	Low
FTR market participation trends	✓	Low	Low	Low	Low
FTR market's DA predictive capability	✗	Low	Medium	Low	Low

Balance of Planning Period Auction Schedule

Season	Auction In	Auction For					No. of Periods
Spring	May	June					1
Summer	June	July	August	Fall (SON)	Winter (DJF)	Spring (MAM)	5
	July	August	September	October	November		4
	August	September	October	November			3
Fall	September	October	November	Winter (DJF)	Spring (MAM)		4
	October	November	December	January	February		4
	November	December	January	February			3
Winter	December	January	February	Spring (MAM)			3
	January	February	March	April	May		4
	February	March	April	May			3
Spring	March	April	May				2
	April	May					1

Notes:

Fall (SON) = September, October, November

Winter (DJF) = December, January, February

Spring (MAM) = March, April, May

Frequently Asked Questions

MISO Definition of Peak / Off-peak

- Peak Definition
 - Period of time between Hour-ending 0700 EST through and including Hour-ending 2200 Hours EST Monday through Friday excepting New Year's, Memorial Day, Fourth of July, Labor Day, Thanksgiving Day, and Christmas Day or if the holiday occurs on a Sunday, the Monday immediately following the holiday
- Off-peak Definition
 - All periods of time not classified as Peak

Lower GSF Cutoff for Constraints in Day-Ahead

- Current value is 0.75% in Day-Ahead and Real-Time
 - At the July 2024 Market Subcommittee Meeting, MISO provided an update on lower generation shift factor cutoff for constraints with Limited Relief
 - FTR Market does not implement a sensitivity cutoff

References

References

- MISO Modeling Practices
 - Section 5.8 - Nomograms
 - [MISO ARR/FTR Modeling Practices MO-OP-019](#)
- London Economics International Report
 - [Independent Evaluation of MISO's ARR and FTRs](#)
- IMM State of the Market Report
 - Section V. Transmission Congestion and FTR Markets – Day-Ahead Congestion and FTR Funding
 - [Potomac Economics 2023 State of the Market Report for MISO](#)