



Briefing on Exceptional Dispatch

Mark Rothleder
Principal Market Developer

Harvard Energy Policy Group
October 1, 2009

What is “Exceptional Dispatch” and why is the CAISO relying on it?

What?

- Committing resources and instructing output changes outside of market mechanisms
- Being used more than expected
- AKA at other ISO/RTO as: *Out-of-Merit, Out-of-Sequence, Reliability-based, Manual, Operator action*

Why?

- Meeting reliability requirements
 - Voltage
 - Contingencies
- Overcoming model and software limitations
 - Forbidden region / hold periods

How are Exceptional Dispatches settled.

- Exceptional Dispatches do not set LMP prices
- Depending on the reason for the Exceptional Dispatch they are paid higher of LMP, Bid or mitigated Default Energy Bid
- Exceptional dispatch of non-Resource Adequacy capacity could result in a monthly Interim Capacity payment
- Excess Costs associated with Exceptional Dispatches are allocated:
 - To PTO if is due to transmission model issue or outage in a PTO area
 - To Tier 1 Net Negative Uninstructed Deviation and Tier 2 Metered Demand

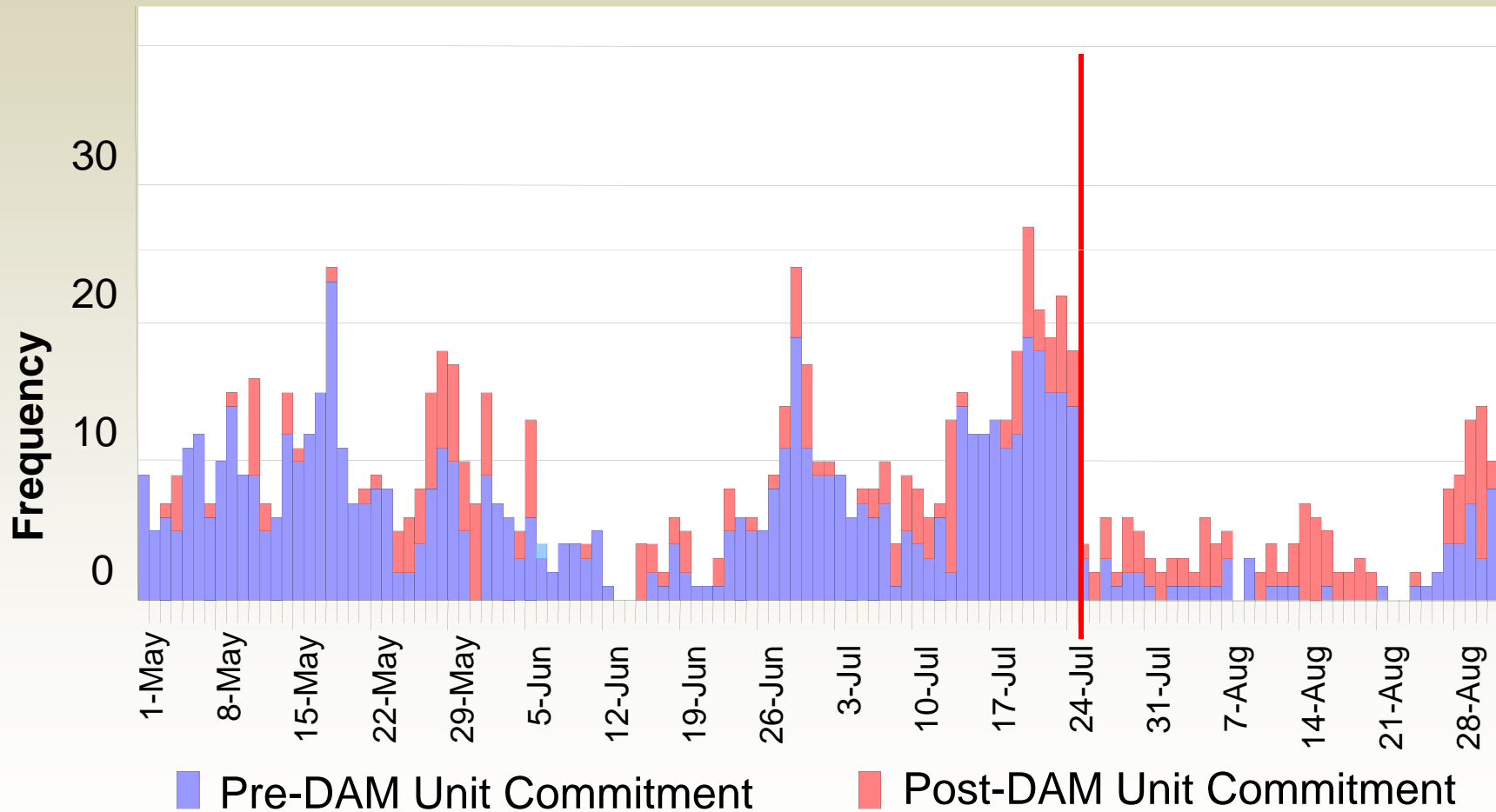
The CAISO committed to reducing reliance on exceptional dispatches.

- Gained market experience not available in simulation
- Formed Exceptional Dispatch Strike Team
 - Analyze process and tools
 - Evaluate potential software changes
 - Determine process changes
 - Assess changes to Tariff or BPMs
 - Emphasize continuous improvement in data quality

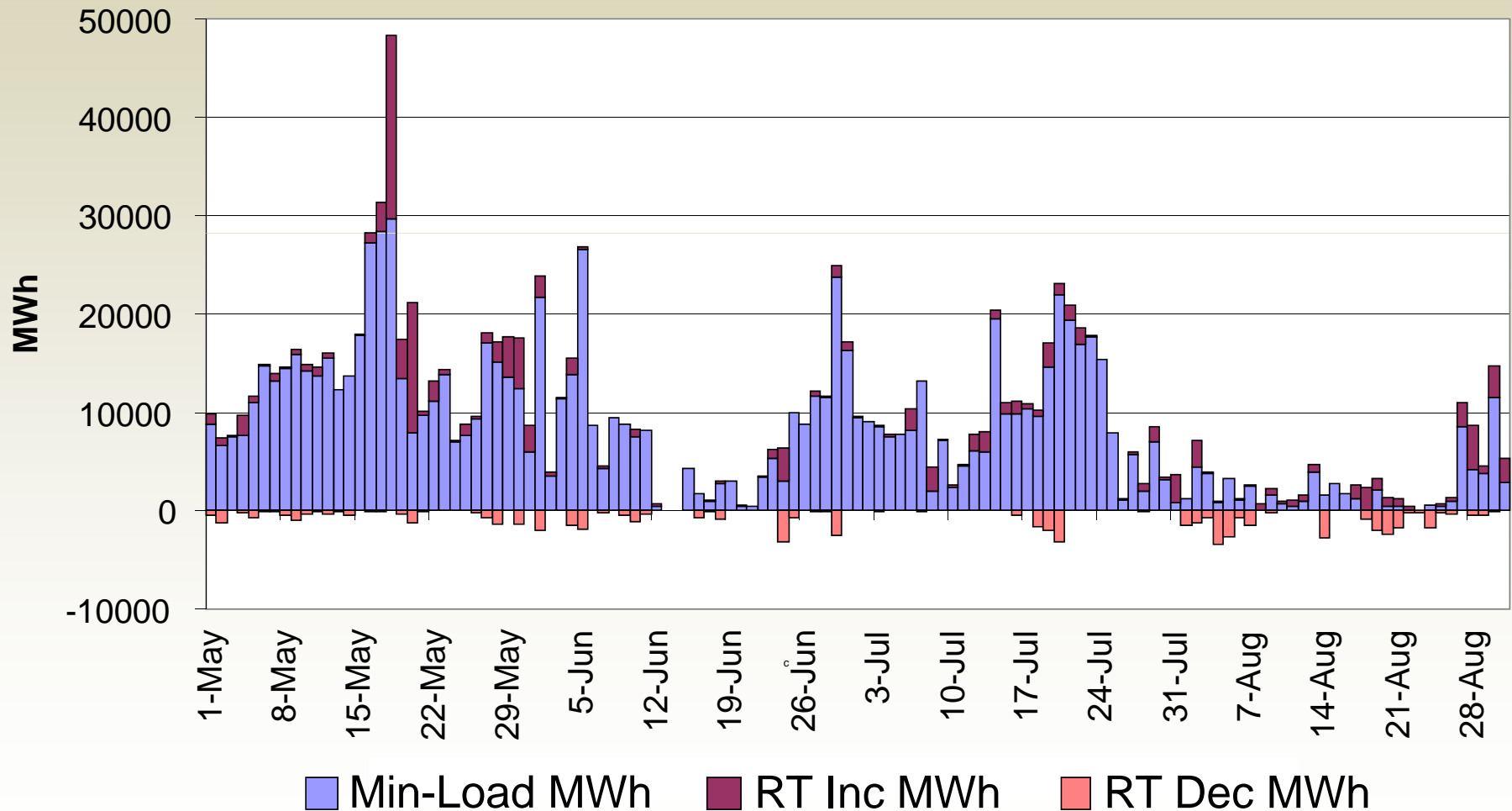
Results:

- Refined process to reduce exceptional dispatch
- Increased reliance on market

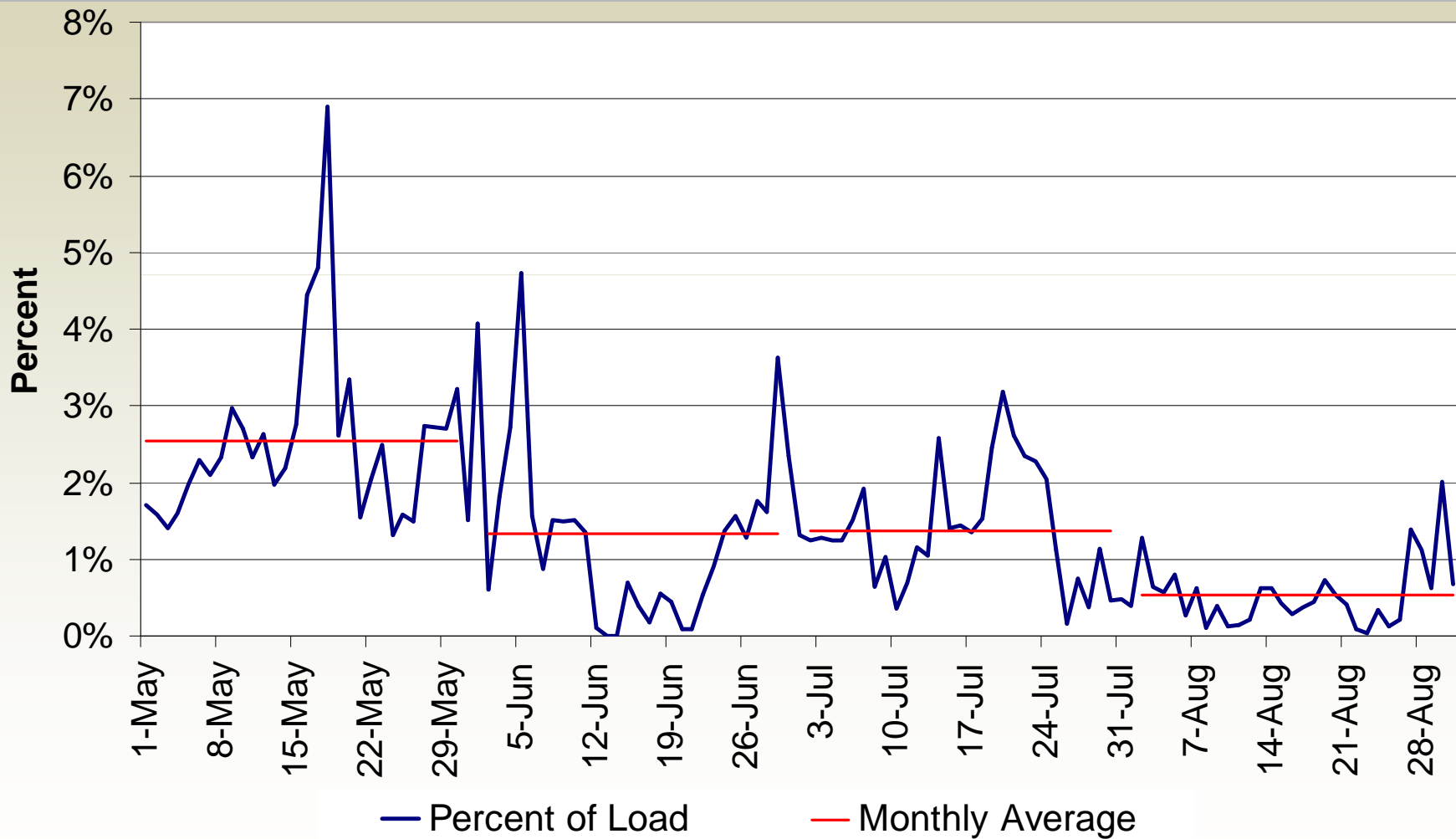
We've made progress in the reducing reliance on exceptional dispatch in the day ahead.



The overall volume of exceptional dispatch (MWh) has been significantly reduced.



Exceptional dispatches are a small portion of total load, and a smaller percentage as load increases.



Percent of energy dispatch under Exceptional Dispatch is comparable to Out-of-Merit other ISO.

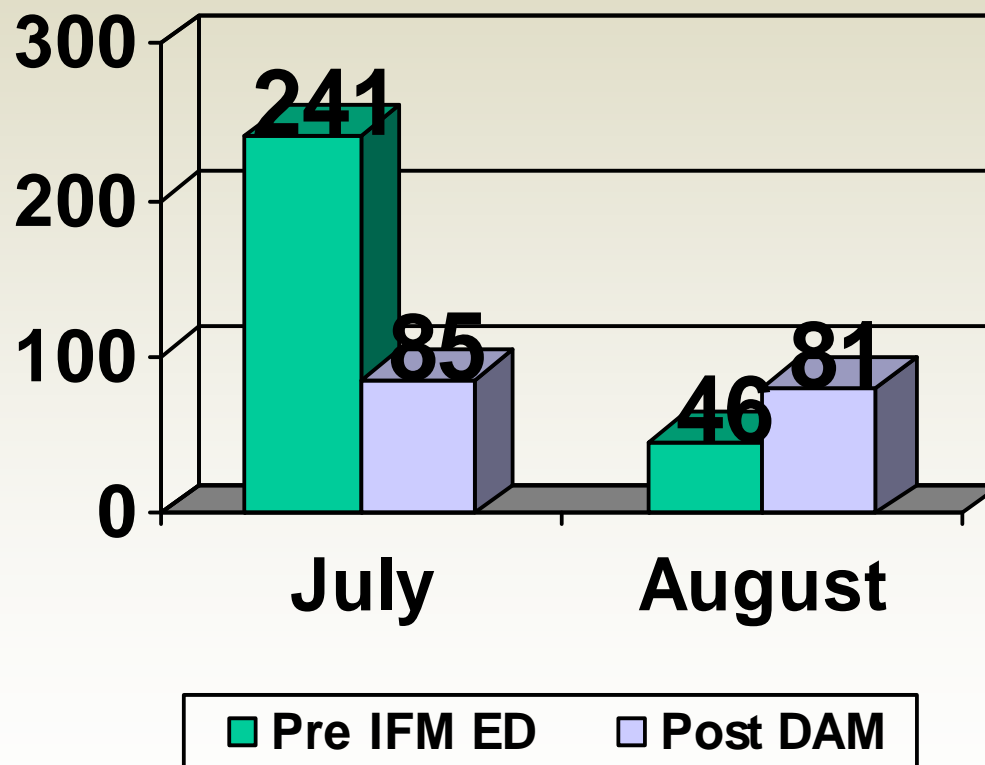
Table 1-3 shows the out-of-merit generation by year and commitment category. All categories of out-of-merit generation decreased in 2008 compared with 2007. Out-of-merit generation as a percentage of total energy dropped below 2%, to 1.9%, for the first time since 2003.

Table 1-3
Generation from Out-of-Merit
Reliability Commitments Paid NCP, by Type, GWh

Year	Second Contingency	Voltage	Distribution	First Contingency	Total	% of Total Energy
2003	598.59	322.16	44.68	743.94	1,709.37	1.6
2004	454.01	1,183.82	127.50	1,661.85	3,427.18	2.6
2005	1,785.35	977.40	142.39	1,266.51	4,171.64	3.1
2006	2,282.82	327.77	177.36	436.95	3,224.89	2.4
2007	2,704.53	645.06	11.41	528.16	3,889.16	2.9
2008	1,658.05	427.45	4.65	458.75	2,548.91	1.9

Source: ISO-NE Report

Pre-IFM Exceptional Dispatch July vs. August



Reliance on exceptional dispatch will be substantially reduced by the following actions:

- | | |
|--------------------------------|---------------------------------|
| ▪ Including more constraints | 30 days |
| ▪ Additional use of RUC | 60-90 days - BPM change process |
| ▪ More complex modeling in IFM | Stakeholder input |
| ▪ True-up market to real flows | |
| ▪ Multi-stage generation | Up to 1 year |
| ▪ Multi-day bridging | 1 to 2 years |
| ▪ Transmission upgrades | PTO dependent |
| ▪ Software enhancements | Undetermined |

Exceptional dispatches may always be required for adverse operating conditions or intertie reductions