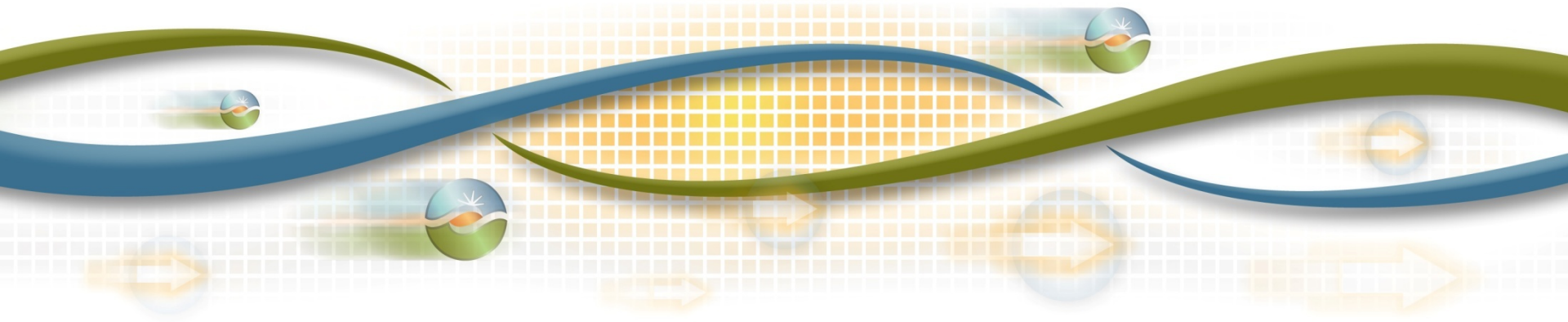


# Briefing on Load Granularity Refinements

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Market Surveillance Committee  
General Session  
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# Background

- Original MRTU decision required the ISO to increase number of LAPs in Release 2
- 2010: the ISO and MSC found price dispersion small, and stakeholders did not support additional LAPs
  - the ISO requested to delay disaggregating LAPs and FERC agreed
- 2013: ISO compared S-LAP to D-LAP prices,
  - again found small differences and customers still not in favor of disaggregating LAPs
  - In February 2014 the ISO filed for a waiver of the requirement for disaggregation

# FERC rejected the ISO's request

FERC rejected the waiver request based on:

- Waiver request was not limited in scope
- Waiver request was insufficiently supported
  - How would price differences affect market outcomes?
  - Why are average price differences the correct metric?
  - “Given that more disaggregation theoretically should produce better price signals, we find the fact that the CAISO significantly limited the level of disaggregation examined – and left SDG&E out of the Pricing Study entirely – renders the Pricing Study inconclusive.”
  - More information needed on how disaggregation would impact Congestion Revenue Rights (CRRs), transmission investment incentives, and estimates of cost of implementation

FERC gave the ISO an extension of 1 year from the date of decision (June 3, 2014) to disaggregate or seek further relief

- FERC further instructed that any pricing study used to support a new request must include:
  - Detailed description of underlying data
  - Analysis of a reasonable range of different alternate levels of disaggregation
  - Focused discussions on areas with large price differences
  - Properly supported estimates of implementation costs for the different levels of disaggregation
  - Analysis of the entire CAISO footprint (including SDG&E)

# What do other ISOs do?

| ISO    | Load Pricing   |
|--------|--|
| NYISO  | 11 Load Pricing Zones  |
| ISO-NE | 8 Internal Load Pricing Zones, 7 Intertie  |
| PJM    | Nodal load pricing – custom price for each LSE   |
| MISO   | CPnode Commercial Participant Node, aggregation of EPnodes, which are single bus nodes where LMP is calculated |
| ERCOT  | Settlement Points  |

# Topics for the MSC Input

- Pricing Study Design
  - Look at Nodal prices
  - Time Period: 2009-2014
  - Focus on day-ahead prices
  - Will consider on-peak/off-peak, seasonal, and changes over time

## Topics for the MSC Input cont.

- Pricing Study Structure?
  - Use structure of MSC study from 2010
  - Regress nodal prices on DLAP price

$$P(I,h,k) = \alpha_j + \beta_j * PLAP(h,k) + \varepsilon_j$$

Where:

$P(I,h,k)$  = price at node I in LAP k during hour h

$PLAP(h,k)$  = DLAP price for LAP k during hour h

- Examine  $\alpha_j$  and  $\beta_j$  for spatial dispersion

## Topics for the MSC Input cont.

- Potential Disaggregation Alternatives
  - The existing DLAPs -- status quo
  - Full nodal prices for demand
    - Might not require nodal bidding
    - Could settle at LSE-specific price like PJM
  - Small increase in number of DLAPs
  - Optimized level of LAPs
    - Examining existing congestion to get something like new SLAPs based on local resource adequacy areas,
    - Use the historical data to construct LAPs which minimize the pricing errors



# Anticipated Schedule for Load Granularity Stakeholder Initiative

|                |                                |
|----------------|--------------------------------|
| August 2014    | MSC Discussion                 |
| August 2014    | Post Issue Paper               |
| September 2014 | Stakeholder Meeting & Comments |
| September 2014 | Start Study                    |
| December 2014  | Post Study and Draft Proposal  |
| January 2015   | Stakeholder meeting & Comments |
| January 2015   | MSC Comments                   |
| March 2015     | Board Approval                 |
| June 2015      | FERC Filing                    |