

# WESTERN ENERGY IMBALANCE MARKET

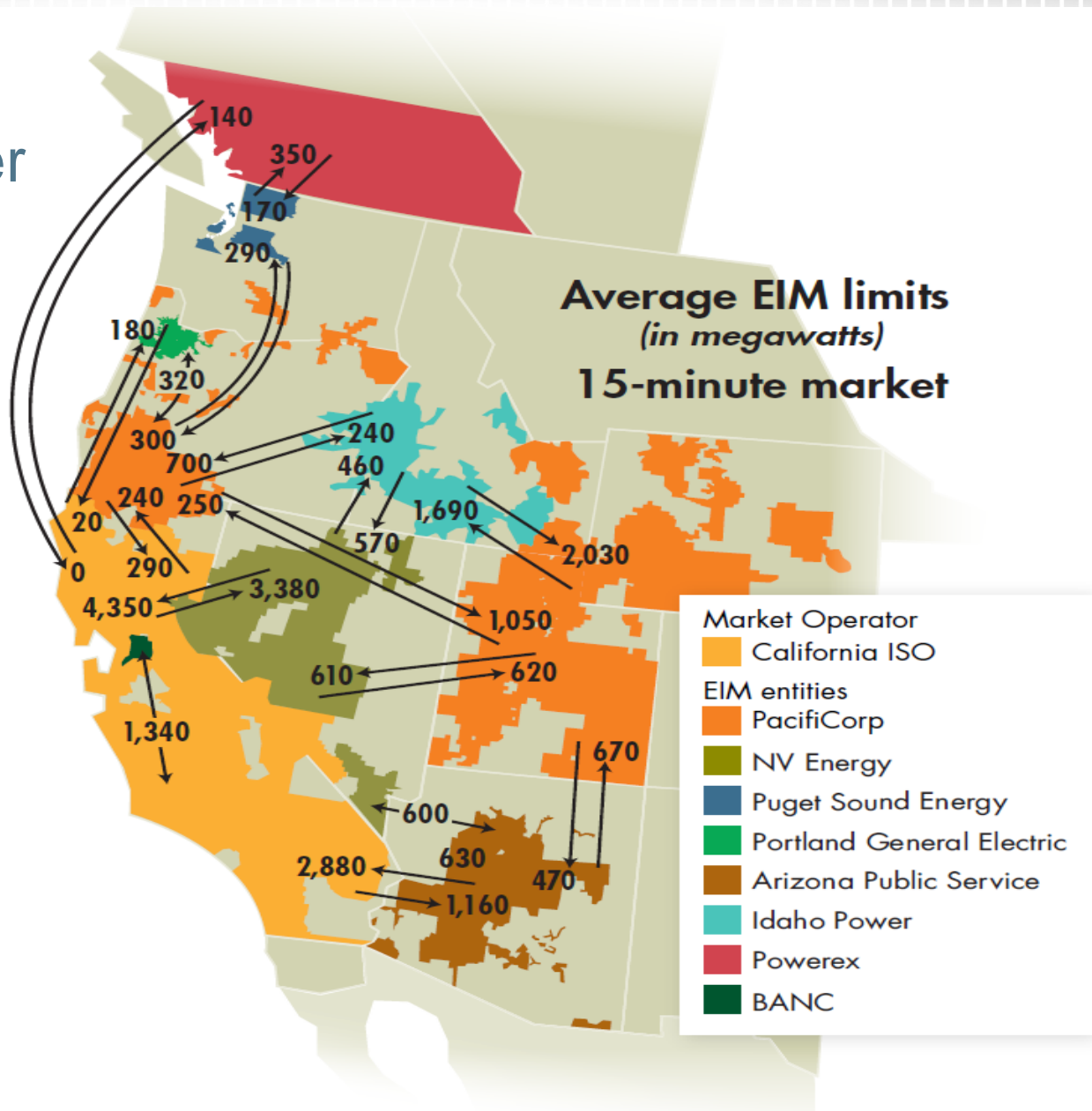
## Market Monitoring Update

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Department of Market Monitoring

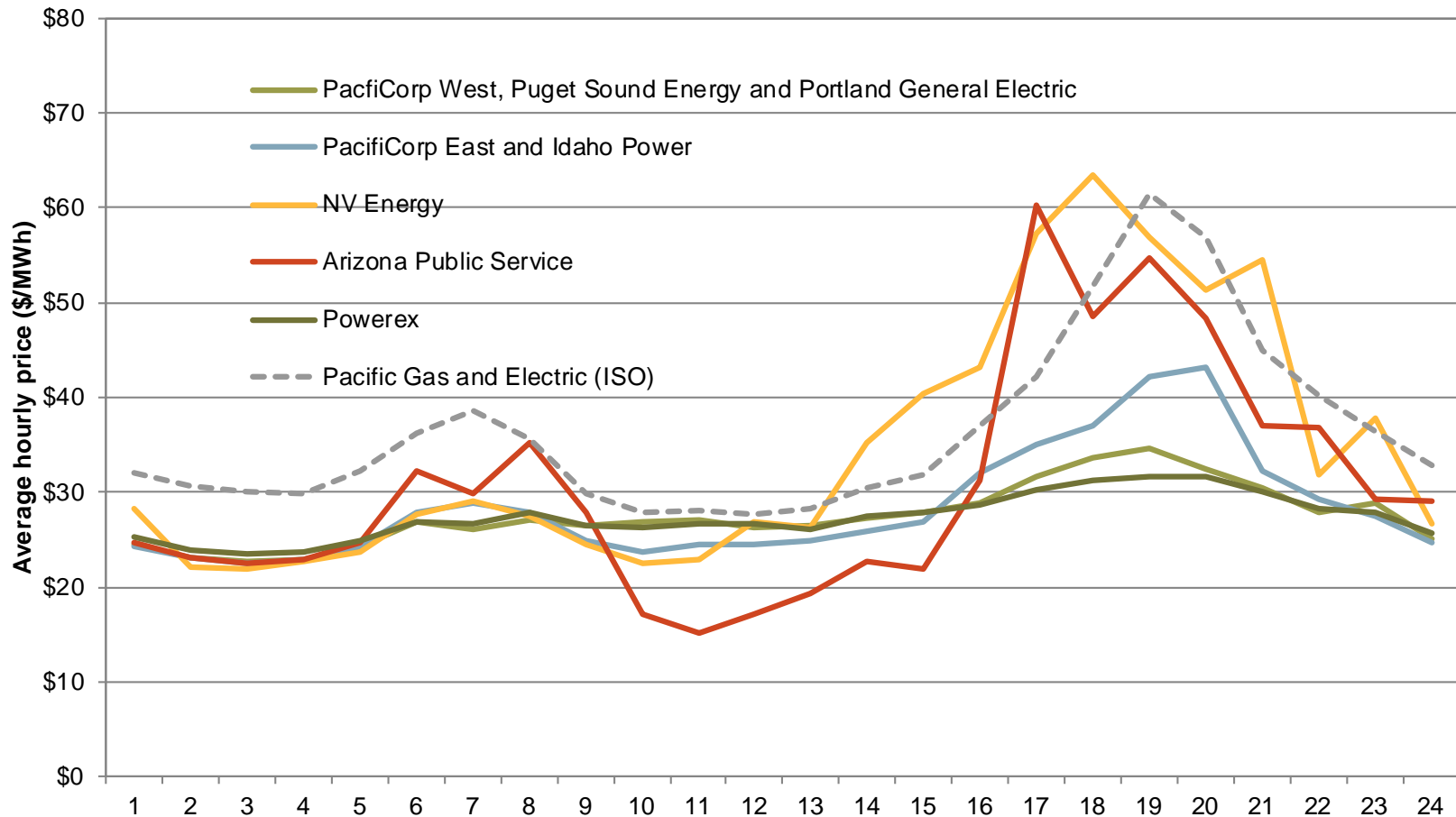
EIM Governing Body Meeting  
General Session  
January 22, 2020



# EIM transfer limits in Q3 2019

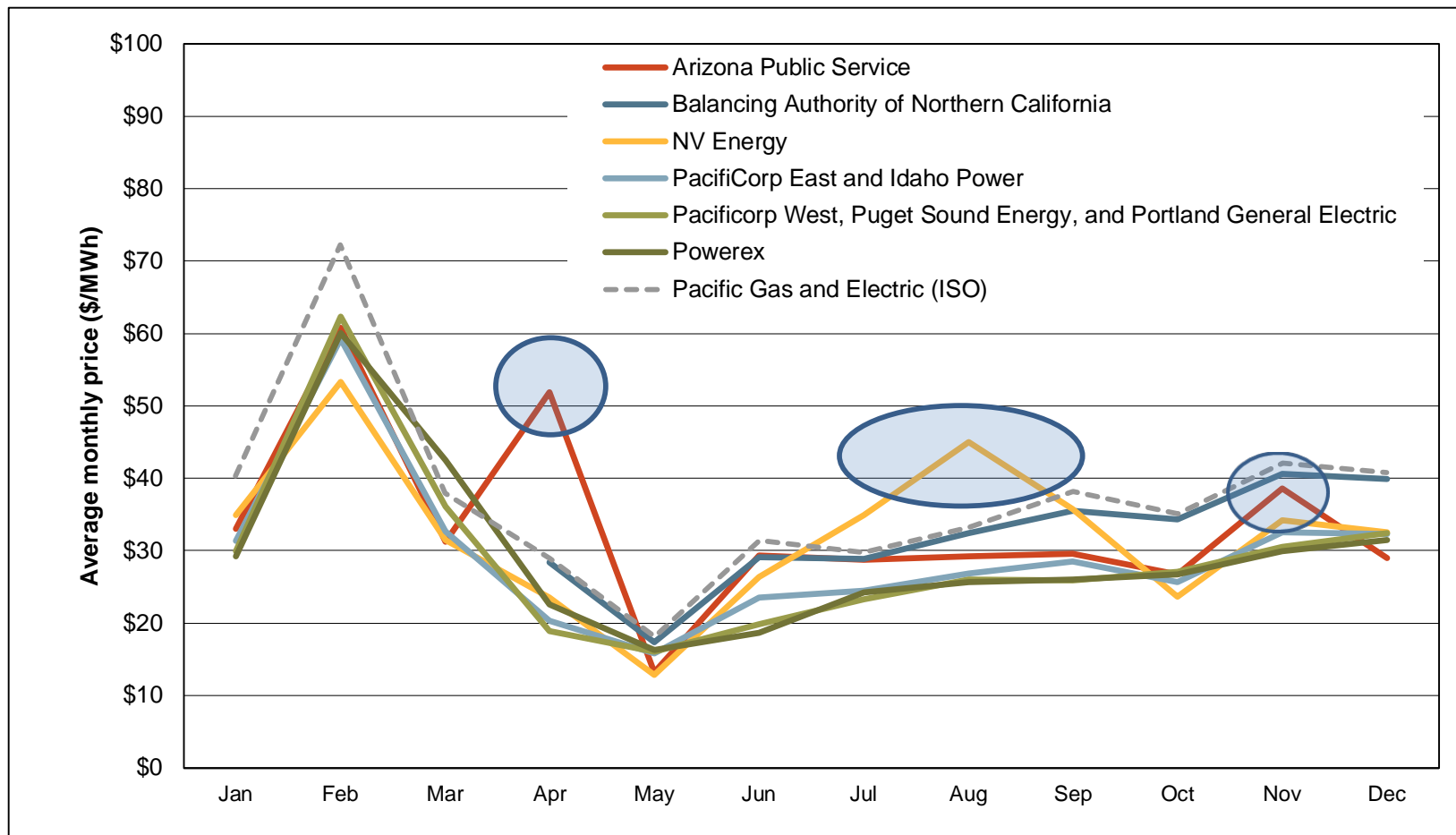


# Recent EIM price trends continue – with lower prices in north and higher prices in south of CAISO/EIM footprint.



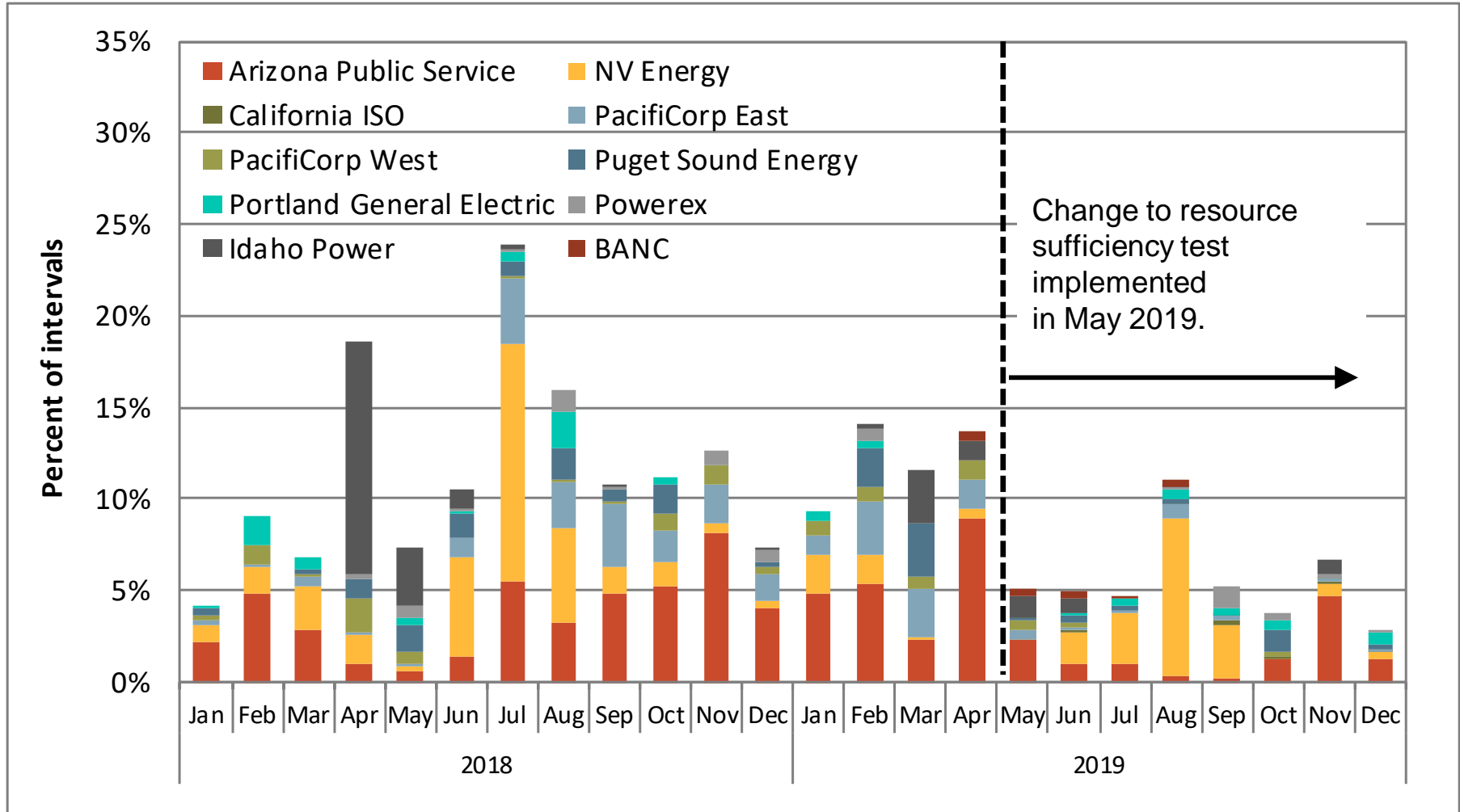
Hourly average 15-minute prices, Q3-Q4 2019

During some months, prices in NV Energy and APS driven higher by power balance constraint violations following resource sufficiency test failures.

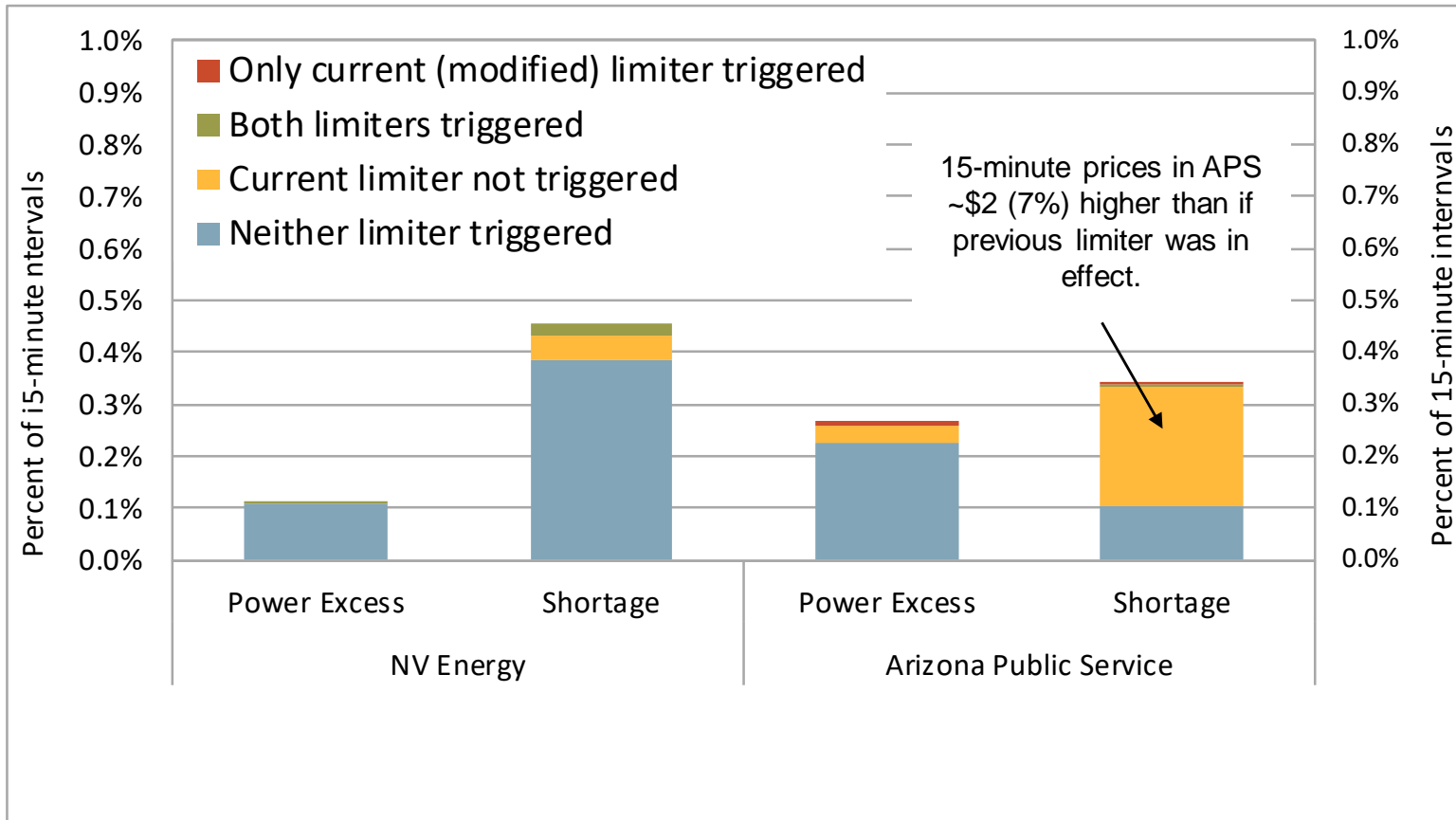


Monthly average 15-minute prices

Change to resource sufficiency test in May 2019 has reduced 15-minute intervals with test failures and power balance constraint violations.



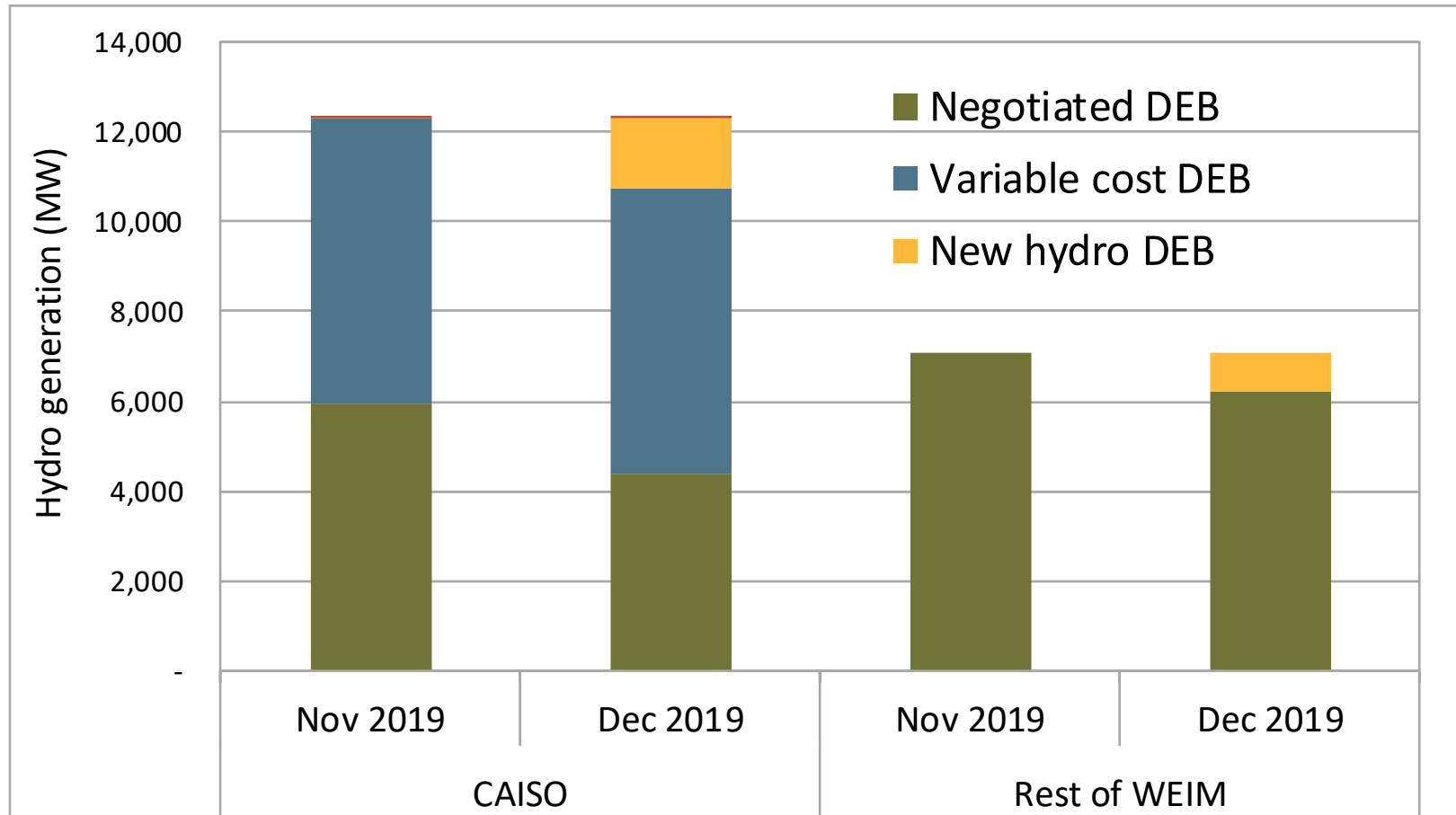
# Modified load conformance limiter implemented in February 2019 has reduced impact of limiter on prices during power balance constraint violations.



May – November 2019

# Most resources not yet using new hydro default energy bid option implemented on November 13, 2019.

*Changes to hub price weighting methodology used in calculating opportunity costs being pursued through BPM change process.*



# Follow-up on prior DMM recommendations

- ✓ Changes to increase mitigation efficiency and offer new higher default energy bid option for hydro resources implemented in November.
- ? ISO considering how to align constraint relaxation parameters with \$2,000/MWh bid cap increase (FERC Order 831).
- ? ISO considering price verification methods for import bids between \$1,000 and \$2,000/MWh before such bids allowed to set LMPs (FERC Order 831).



# DMM recommendations on Extended Day-ahead Market (EDAM)

- CAISO proposing new day-ahead market imbalance reserve product designed to ensure sufficient flexible ramping capacity in real-time.
- DMM recommending that major limitations of real-time flexible ramping product be addressed before implementing day-ahead imbalance reserve product.
  - Locational or nodal procurement of flexible ramping product to eliminate “stranded” flex ramp problem.
  - Extend time horizon flexible ramping product in real-time market beyond current 15-minute timeframe.
  - See *Comments on Issue Paper on Extending the Day-Ahead Market to EIM Entities*, <http://www.caiso.com/InitiativeDocuments/DMMComments-ExtendedDay-AheadMarket-IssuePaper.pdf>

*Department of Market Monitoring update*

[http://www.caiso.com/Documents/DepartmentofMarketMonitoringUpdate\\_Dec2019.pdf](http://www.caiso.com/Documents/DepartmentofMarketMonitoringUpdate_Dec2019.pdf)