



California ISO

# Market Performance and Planning Forum

December 15, 2020

ISO PUBLIC

## Objective: Enable dialogue on implementation planning and market performance issues

- Review key market performance topics
- Share updates to 2020 release plans, resulting from stakeholders inputs
- Provide information on specific initiatives
  - to support Market Participants in budget and resource planning
- Focus on implementation planning; not on policy
- Clarify implementation timelines
- Discuss external impacts of implementation plans
- Launch joint implementation planning process



# Market Performance and Planning Forum

Agenda – December 15, 2020

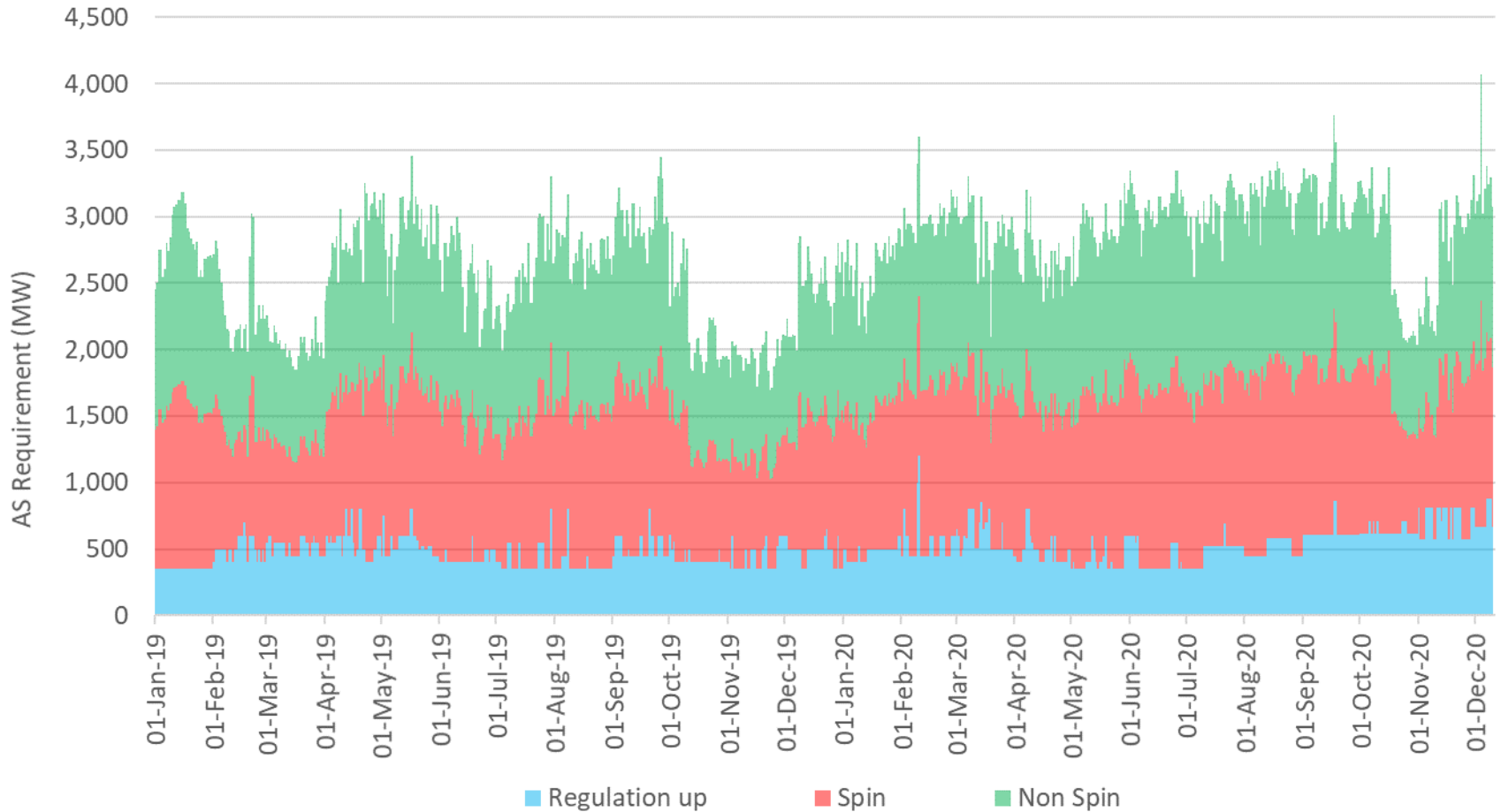
9 a.m. – 12 p.m.

Time:	Topic:	Presenter:
9:00 – 9:05	Introduction, Agenda	Kristina Osborne
9:05 – 10:00	Market Performance and Quality Update	Market Analysis and Forecasting
10:00 – 10:45	Policy Update	Brad Cooper John Goodin
10:45 – 11:45	Release Update	Adrian Chiosea

# Market Performance and Quality Update

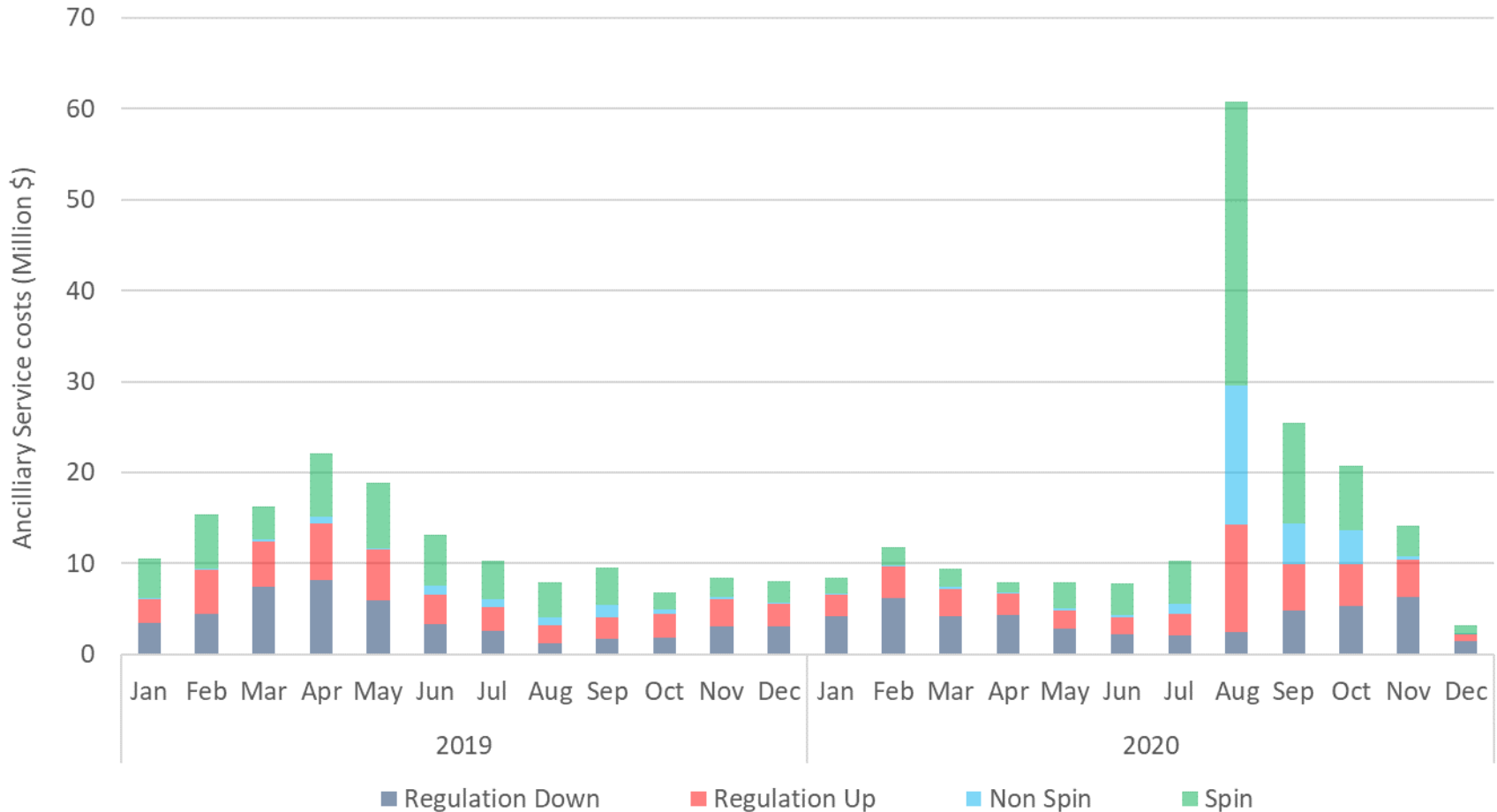
Market Analysis and Forecasting Department

# Estimation of regulation requirements continues to be tuned to better account for operational needs\*



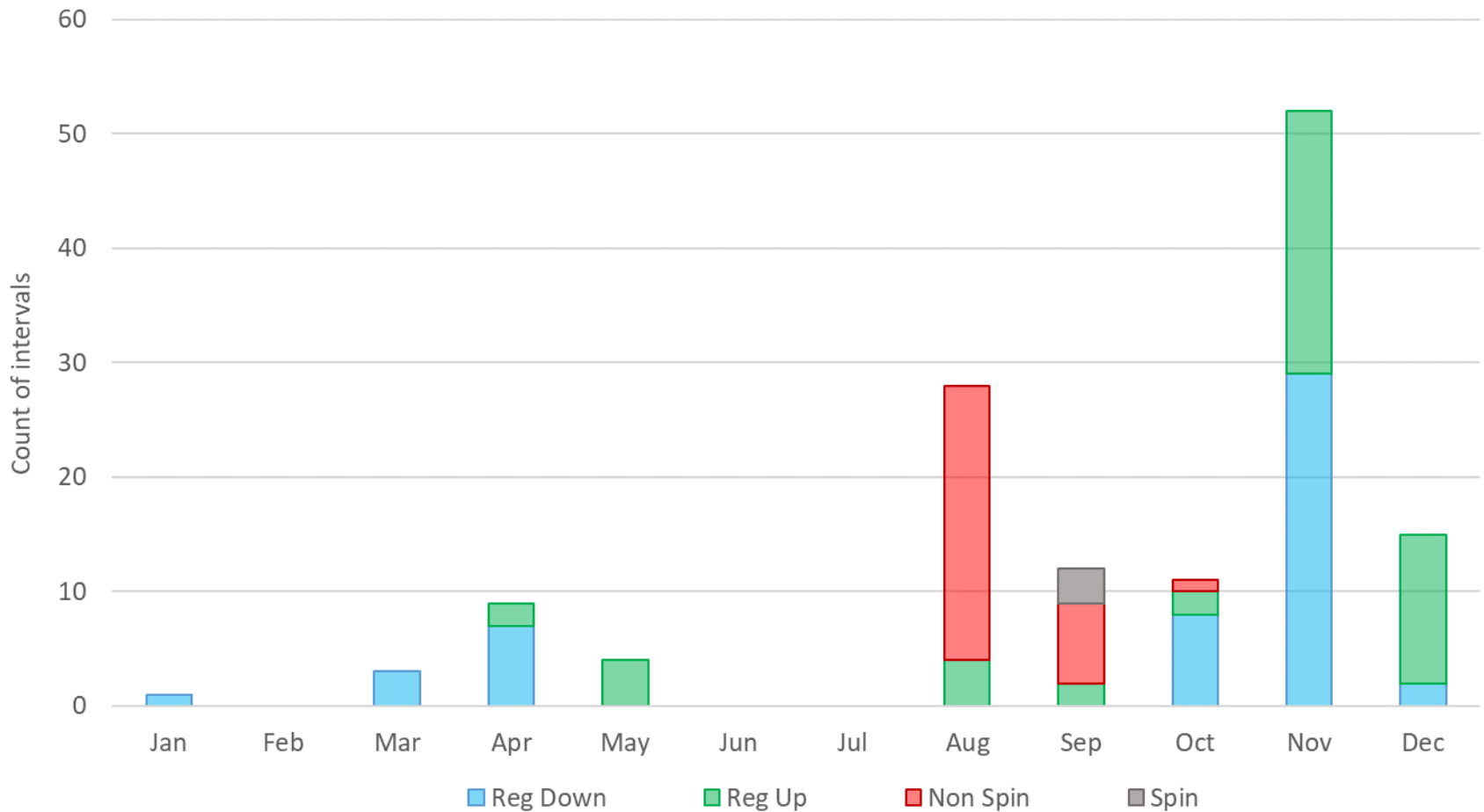
\*Methodology to calculate regulation requirements is described in the MPPF material of December 2016

# Cost of Ancillary services increased during the heatwave period given high clearing prices

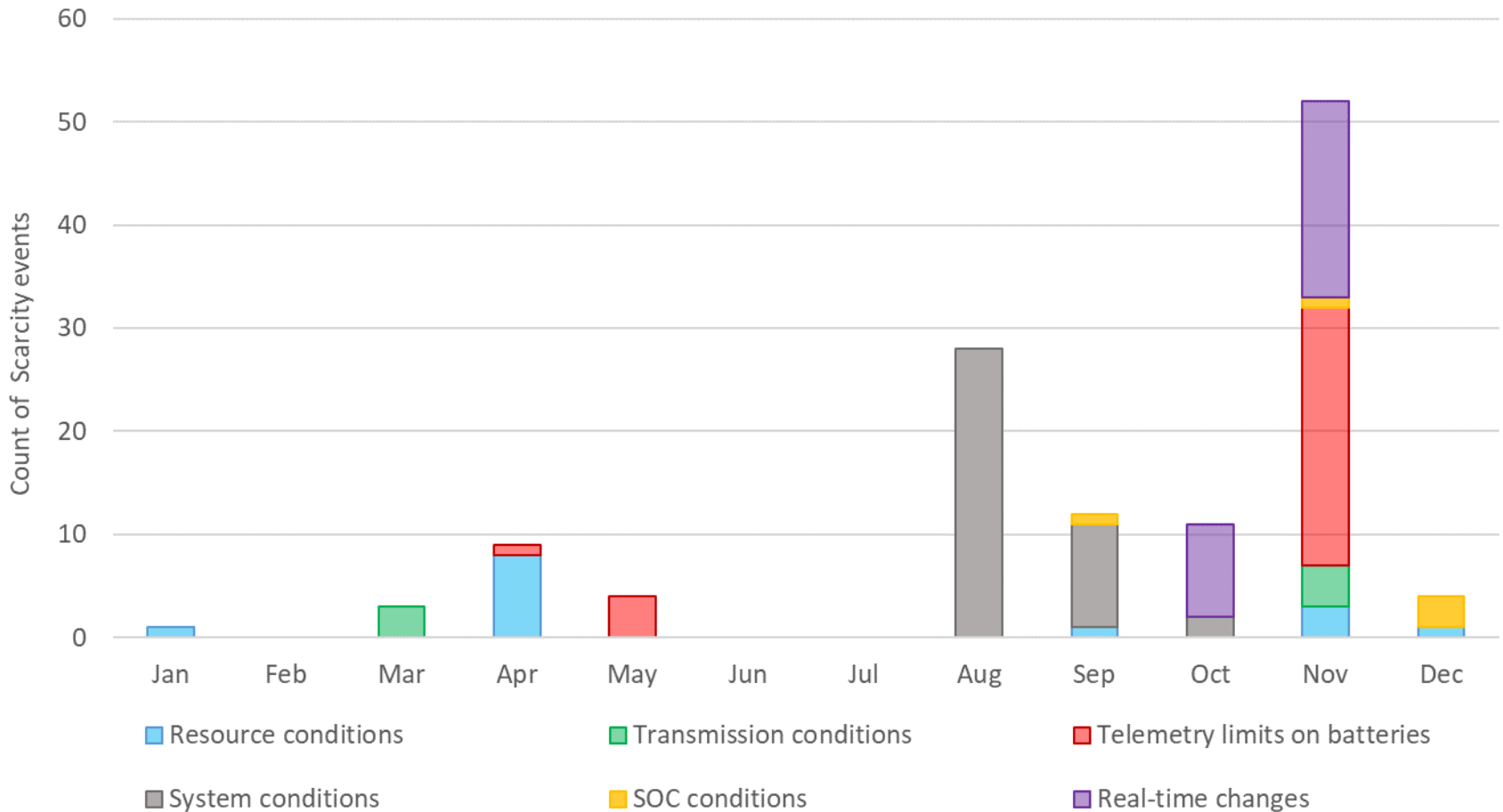


Data for December is partial

# About 75 percent of AS scarcities occurred in the procurement for regulation

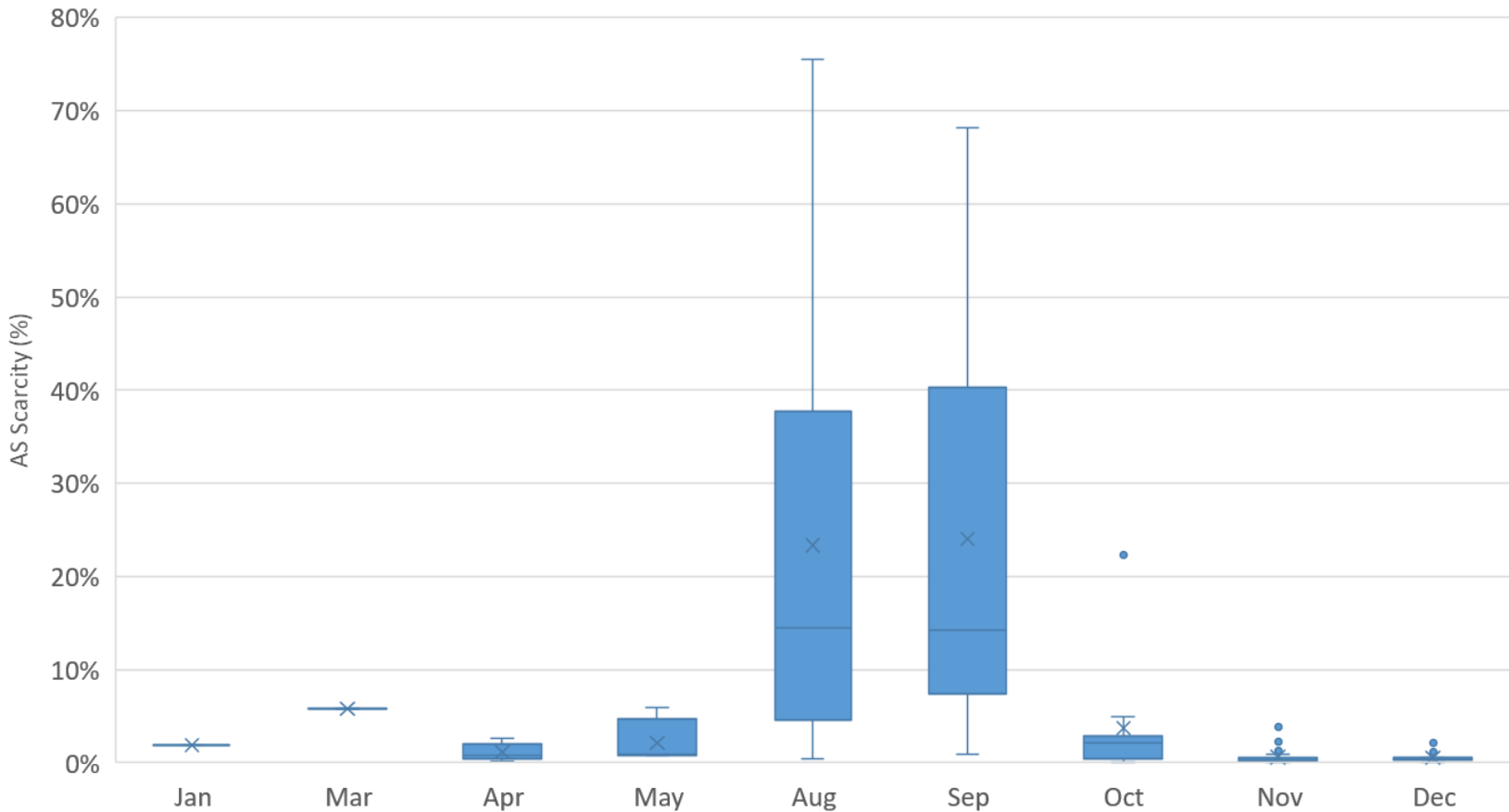


# Scarcities occurred in about 1% of the time driven by a variety of conditions observed in the real-time market

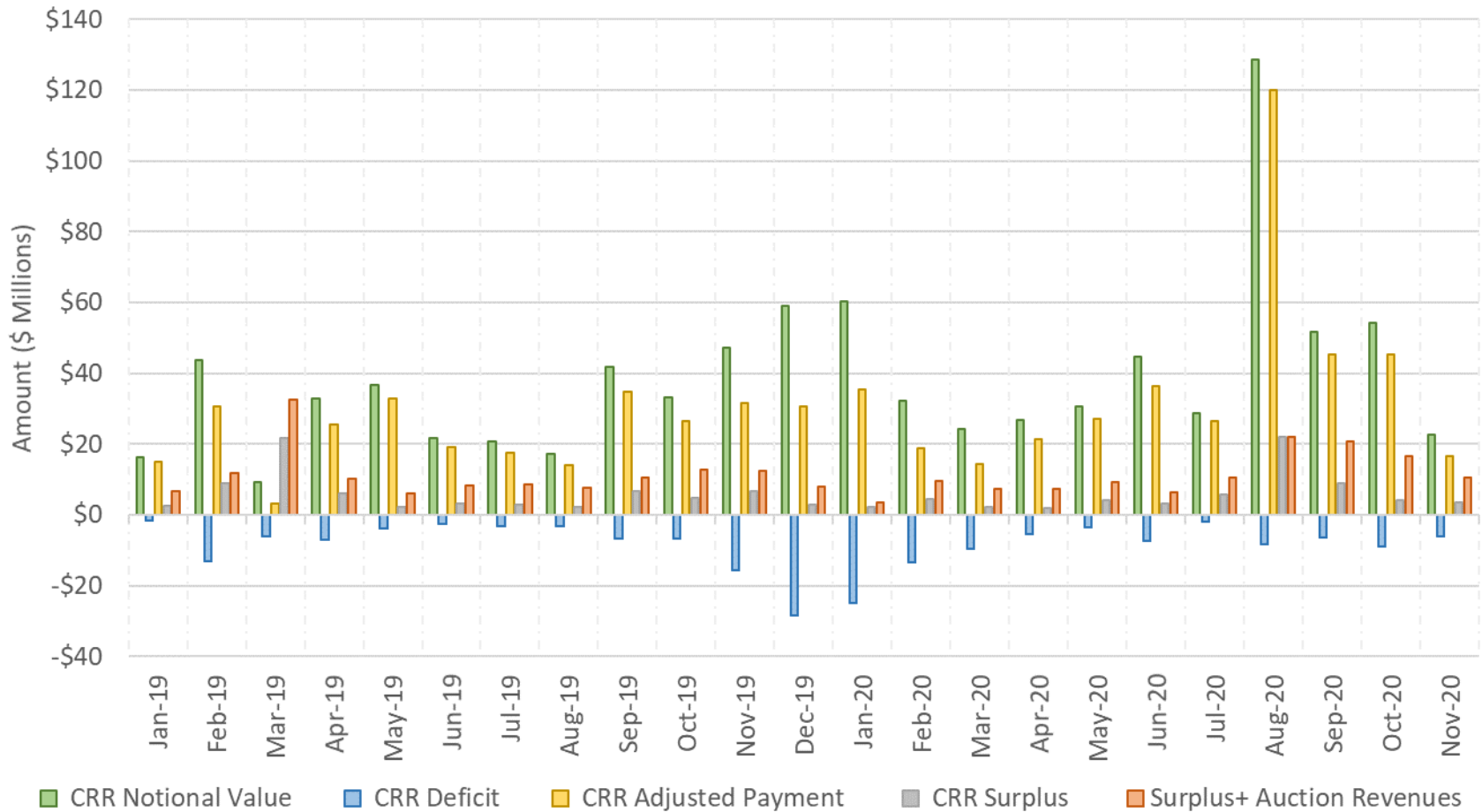




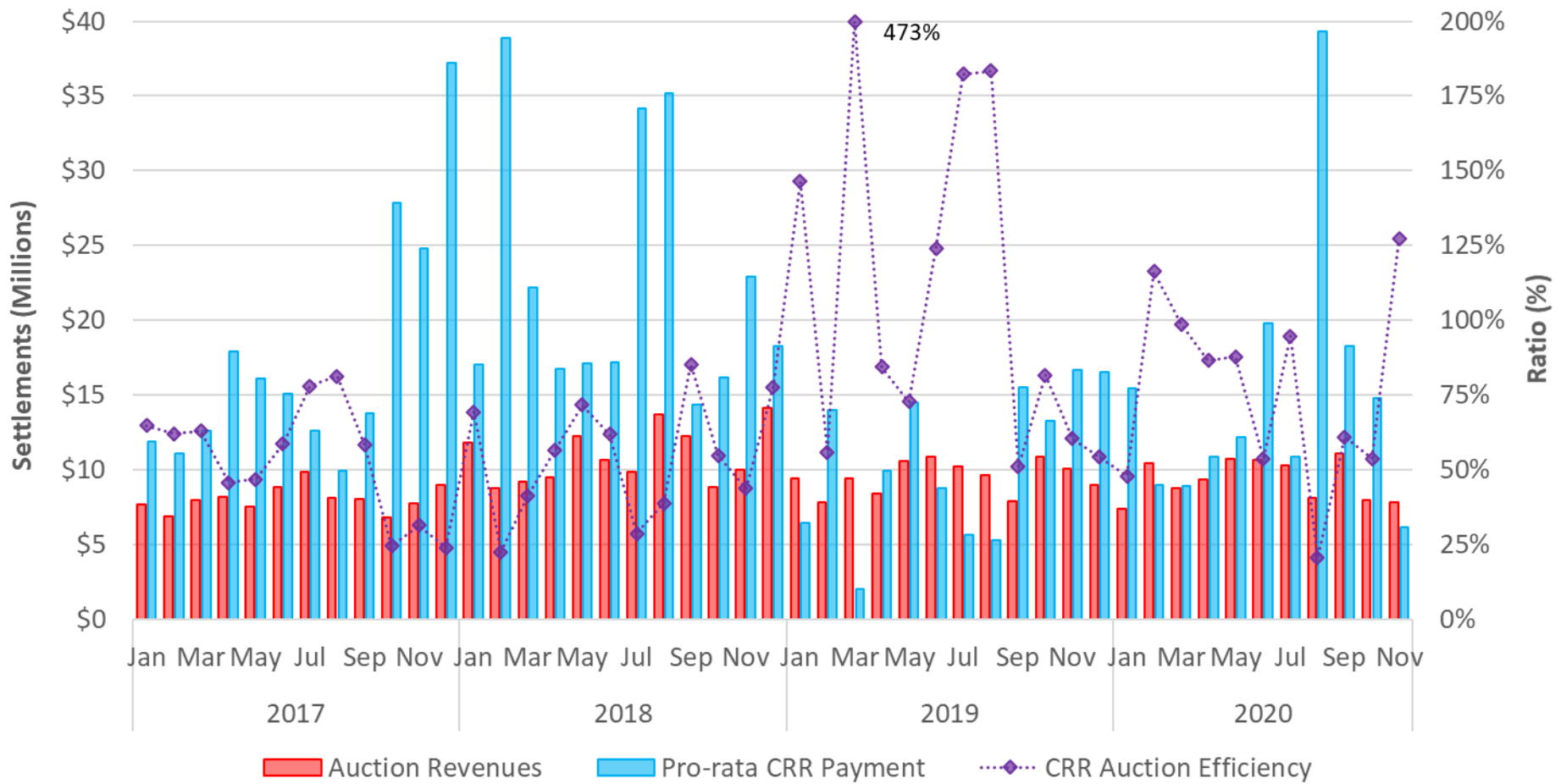
# Majority of AS scarcities are for less than 10 percent of the requirements, with the exception in the peak months of August and September



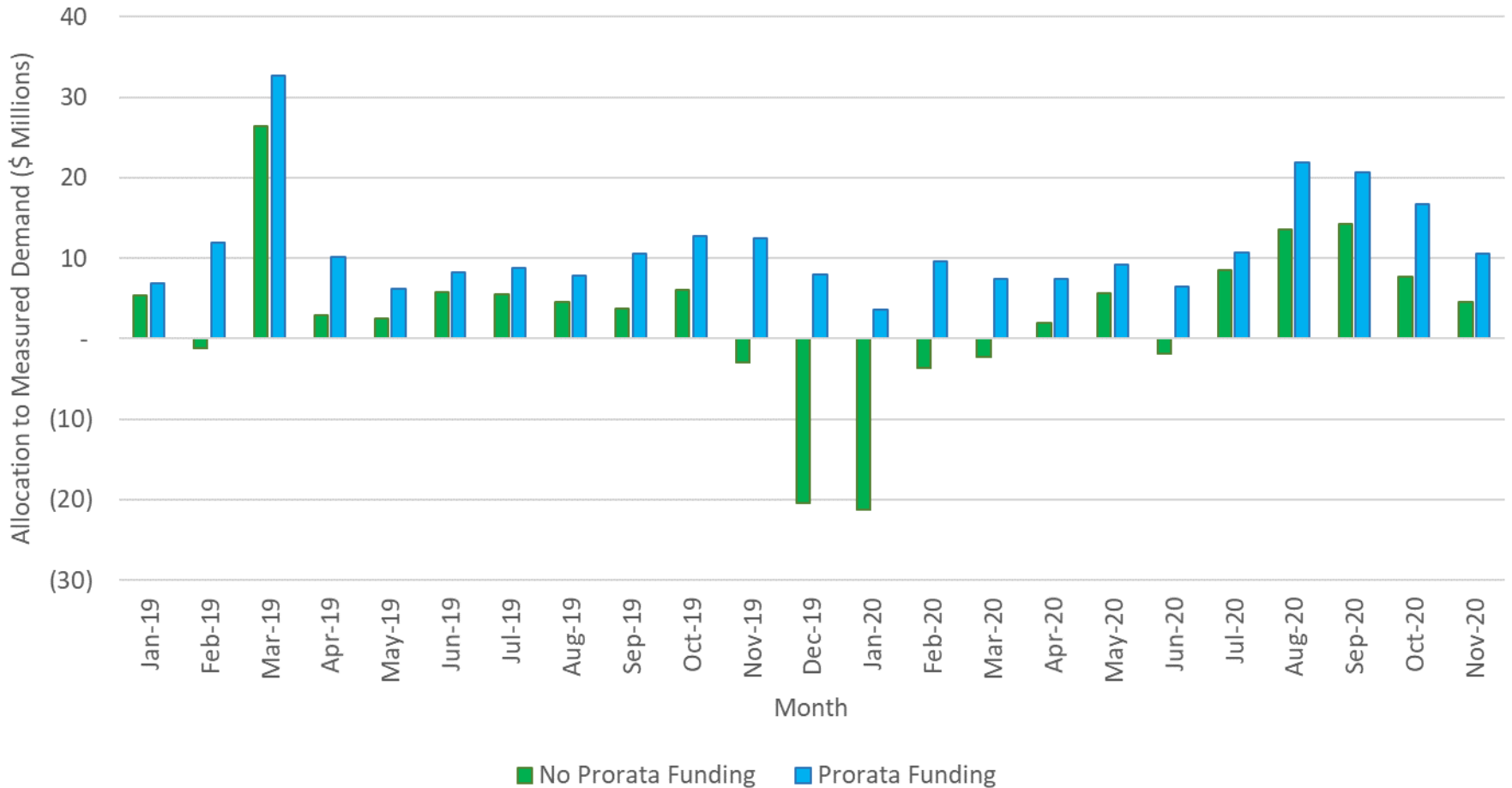
# With milder conditions after the summer, the magnitude of the overall CRR settlements has decreased



# There is better performance of auction efficiency after summer conditions



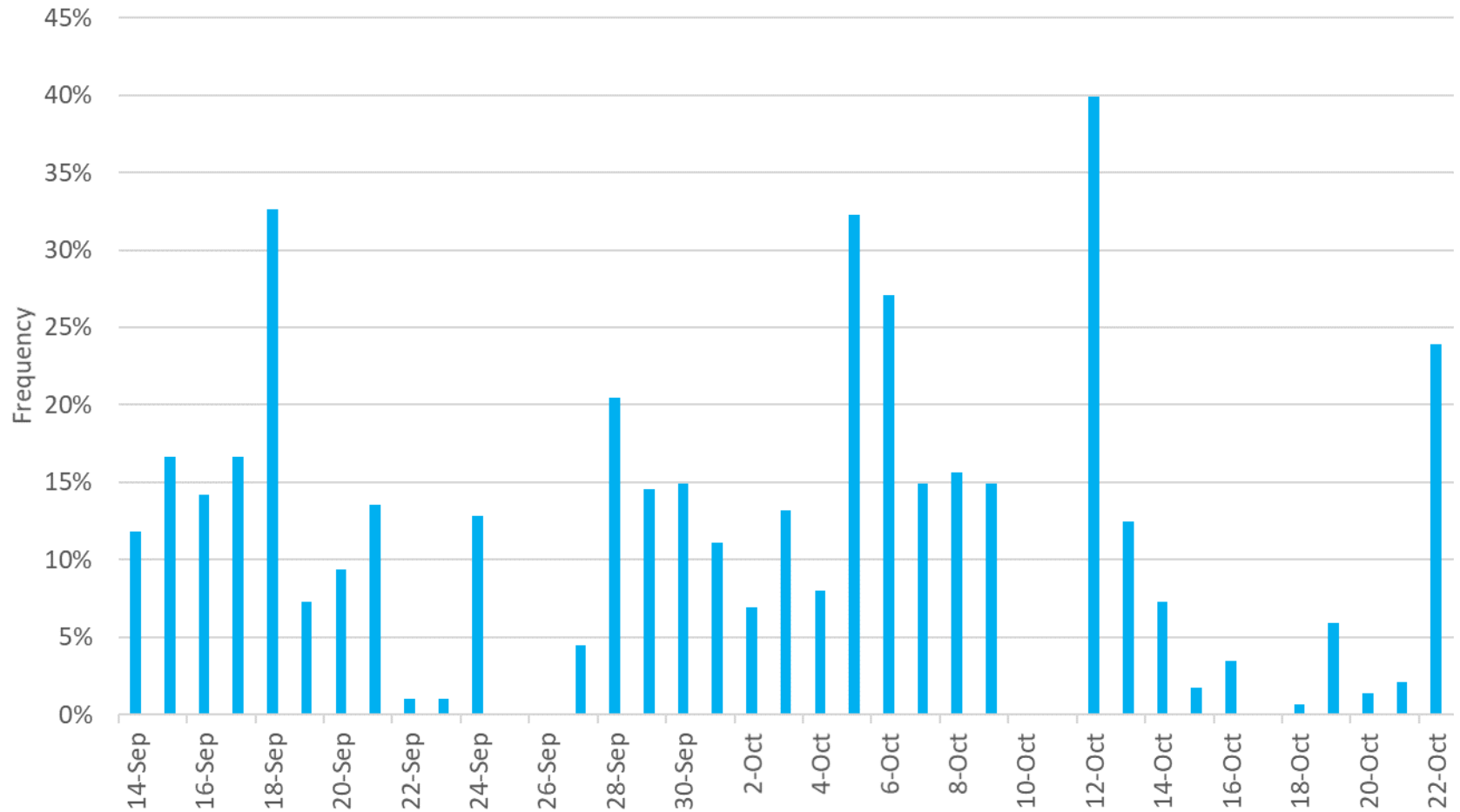
# Implementation of pro-rata funding continues to improve revenue adequacy in 2020



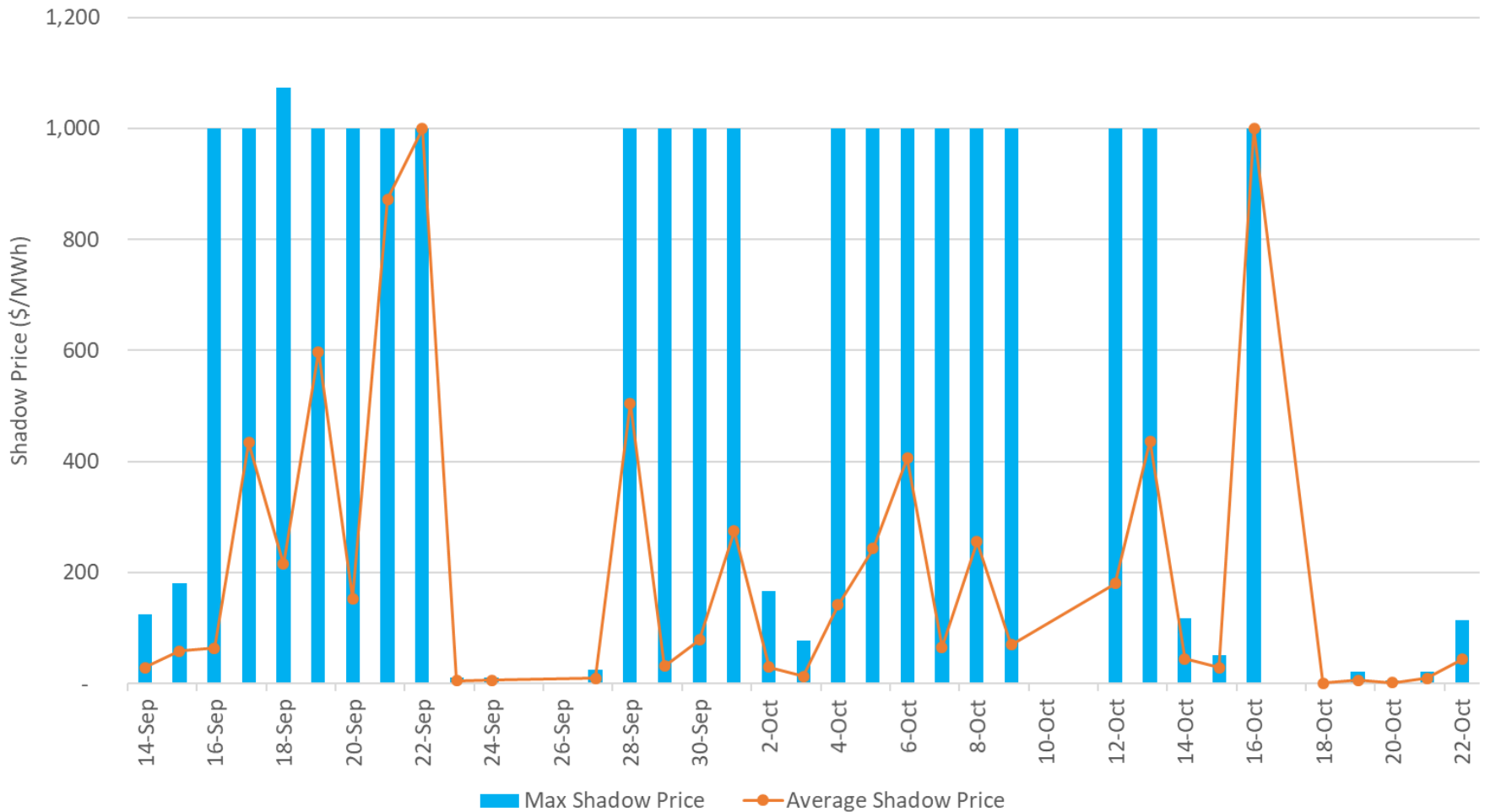
# Gas Nomogram enforced

- Gas Nomogram was enforced for several days from September 14, 2020 to October 24, 2020 for the Southern Region.
- Several planned curtailment notices for CAISO-dispatched Electric Generators in Southern Region/SDG&E territory.
- MAXBURN\_ALISO\_SOUTHERN nomogram was enforced during this period.
- Nomogram was binding mostly during the evening peak ramping conditions (from hour ending 12 – 19)

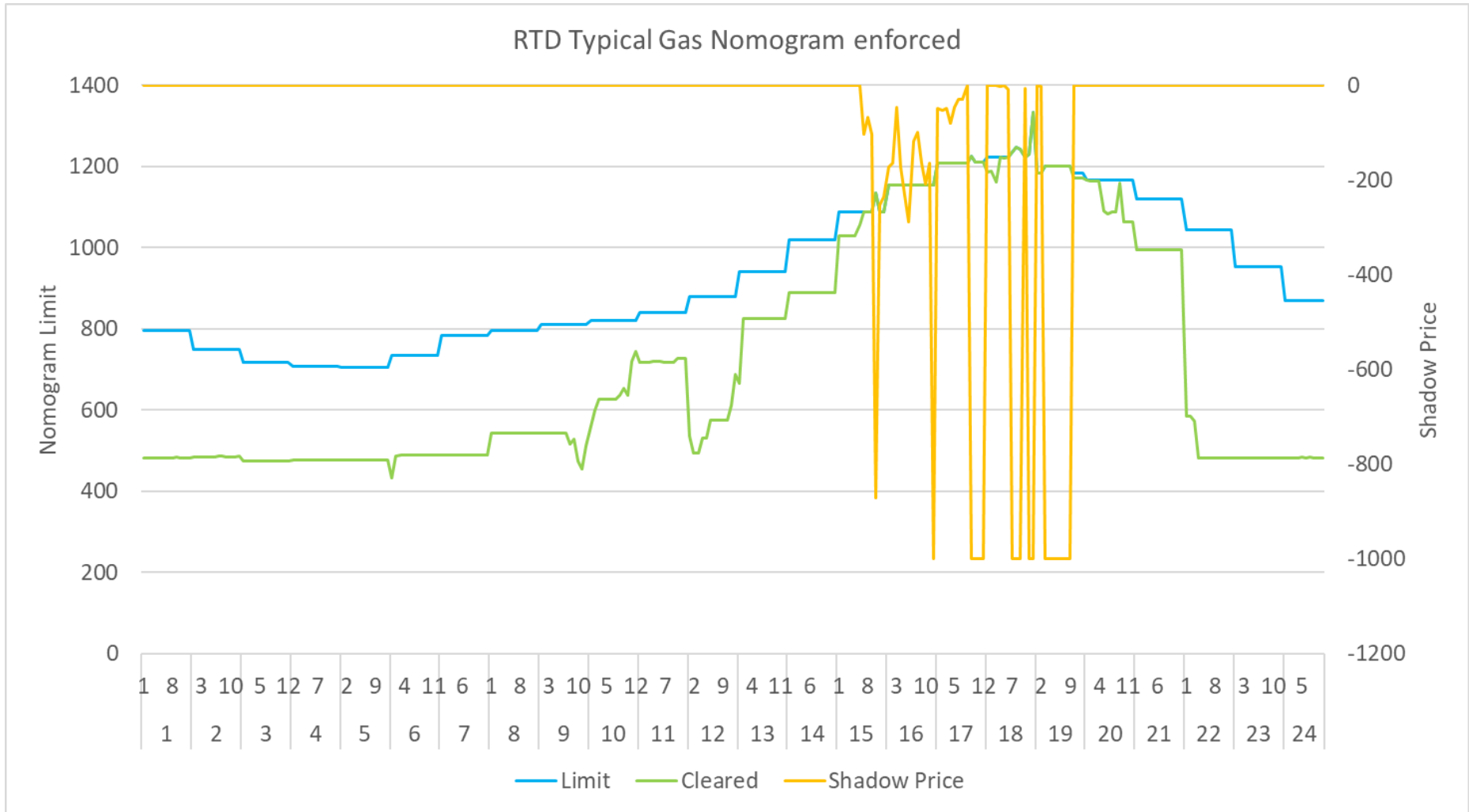
# Frequency of intervals when the gas nomogram was binding in RTD market



# Comparison of maximum and average real-time price of the binding gas nomogram

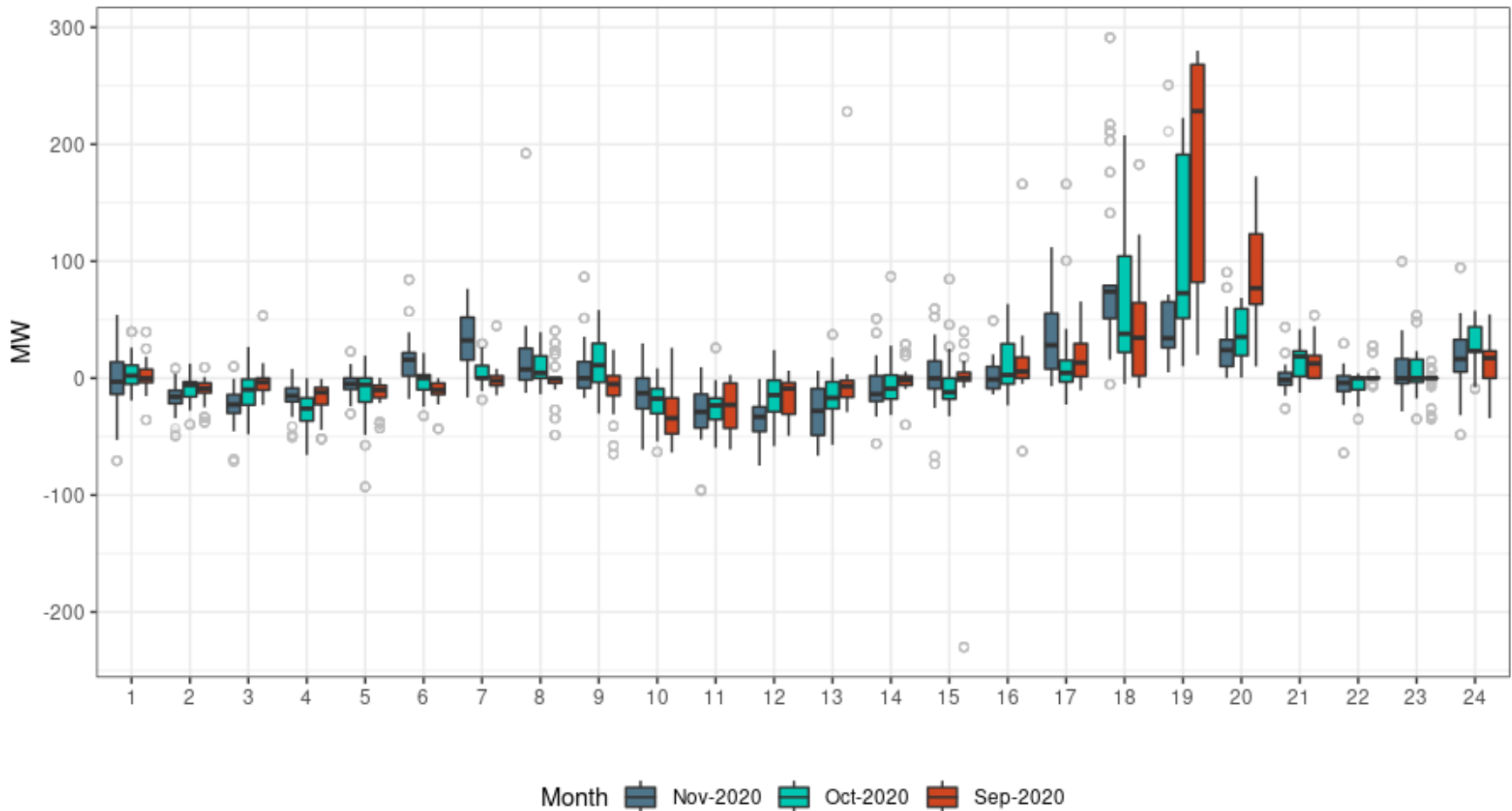


# Gas nomogram was typically binding during the evening peak

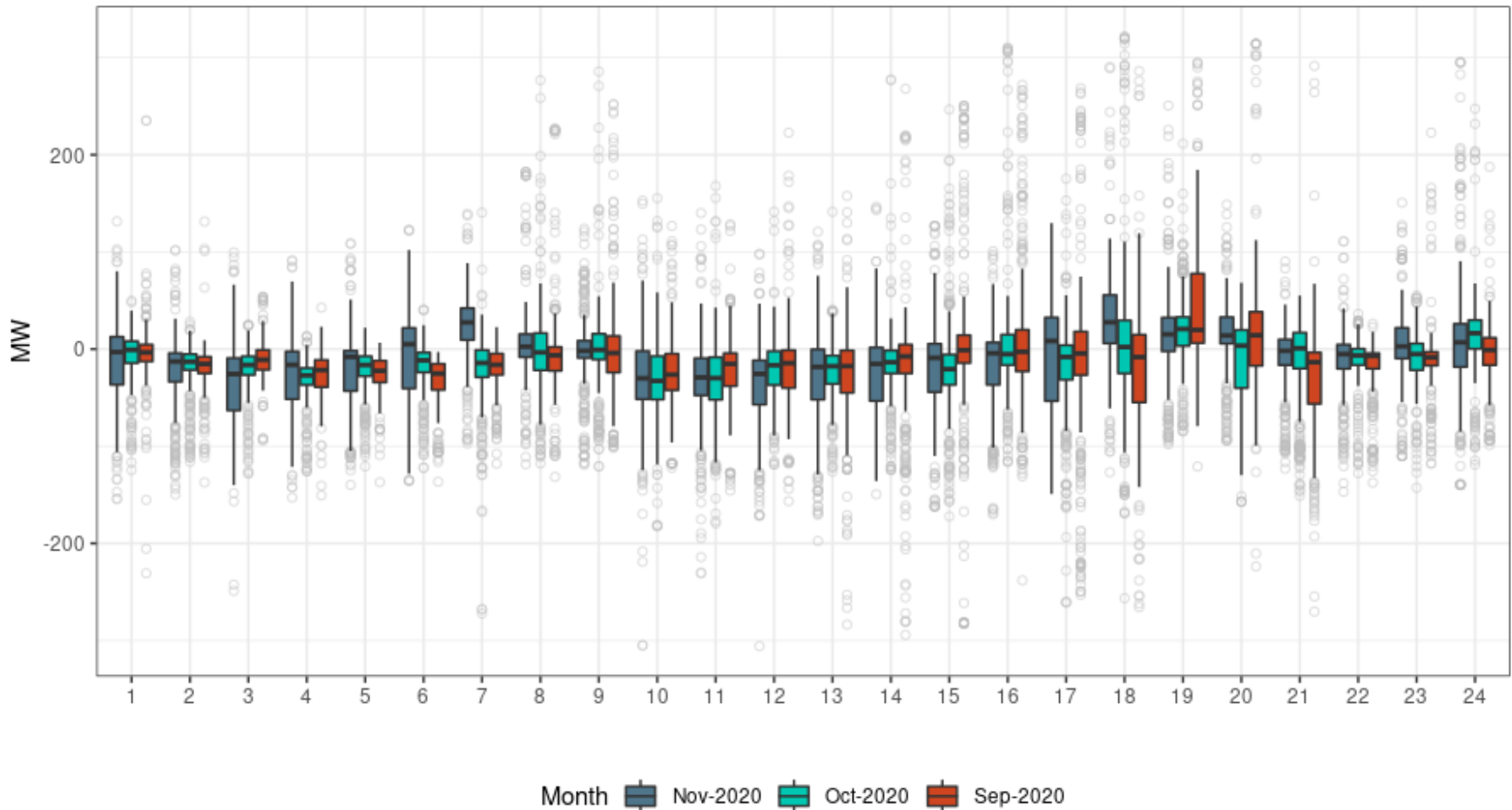




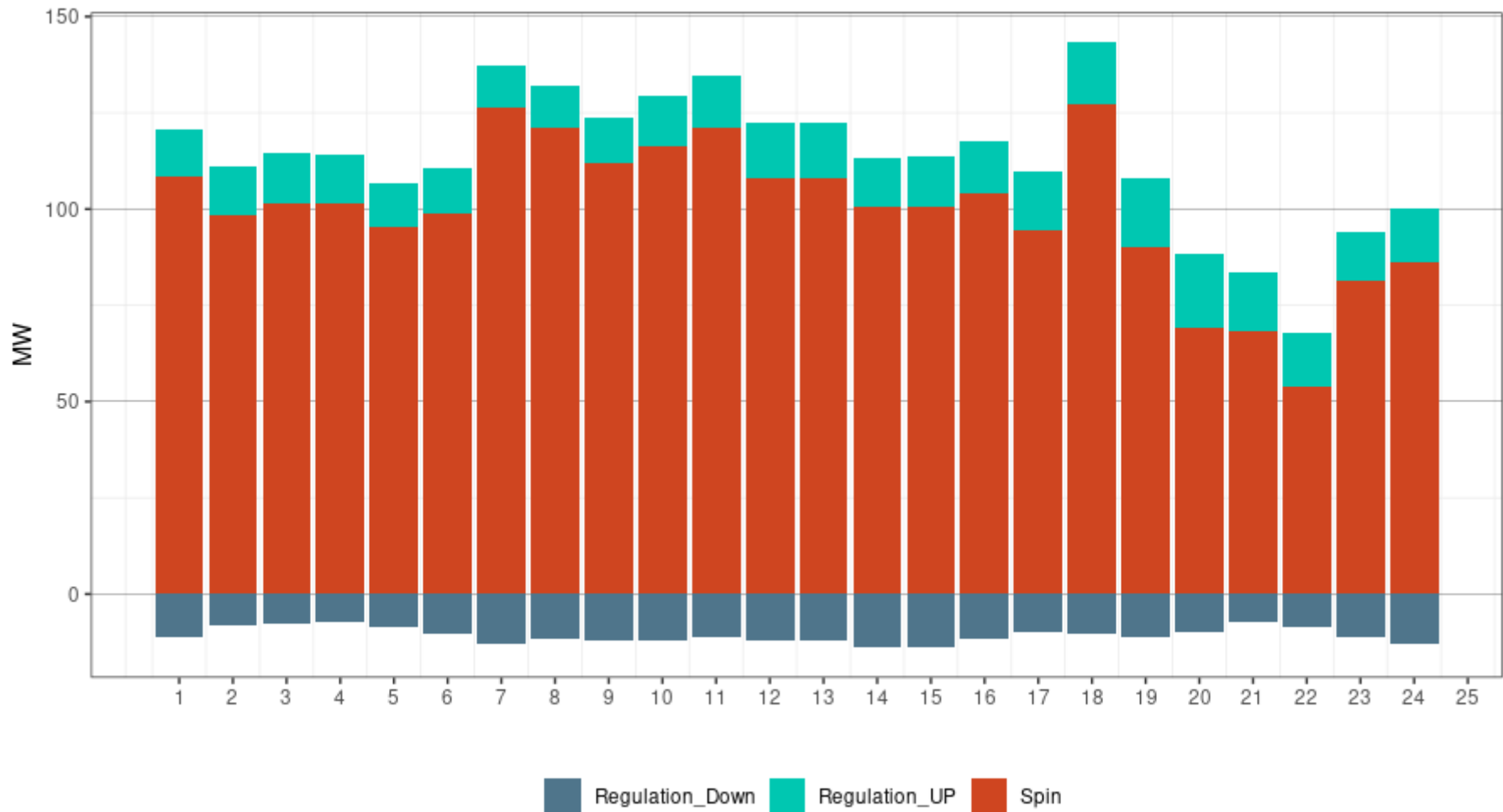
# Batteries are being awarded for discharge in the day-ahead market based on prices largely at peak hours



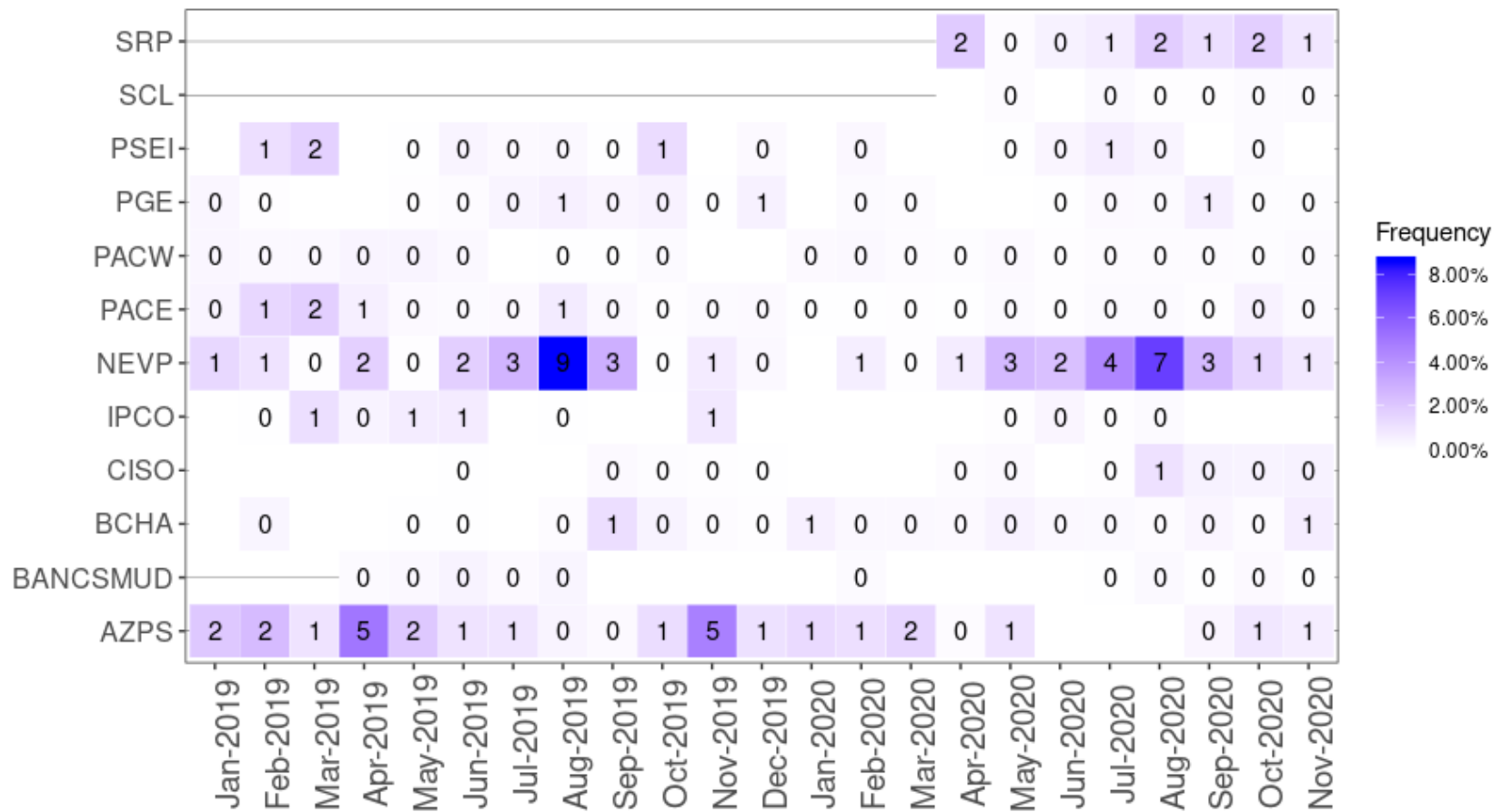
# Batteries are dispatched in real-time based on real-time economics



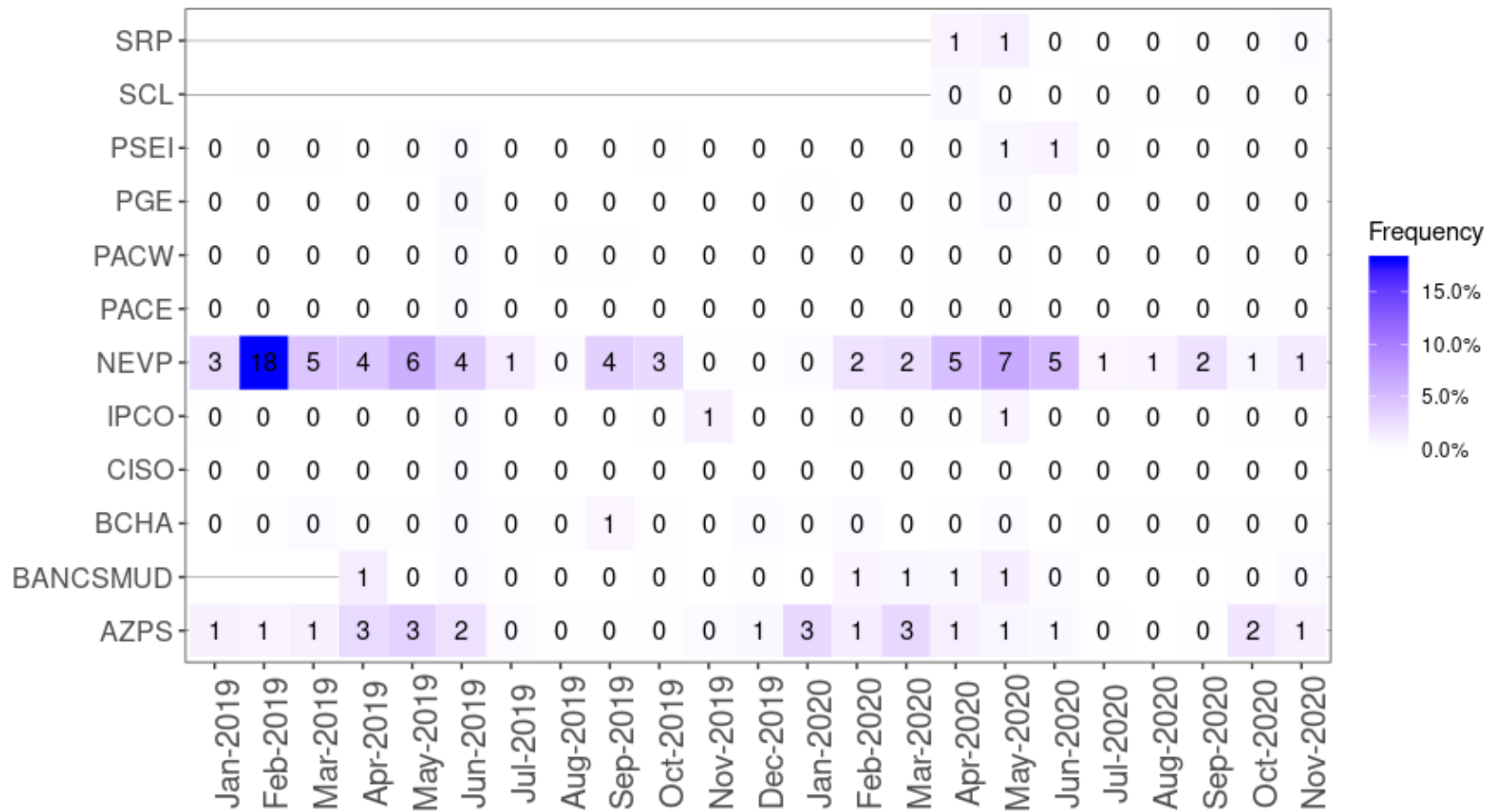
# Batteries are awarded also for providing Upward ancillary services – Nov 2020



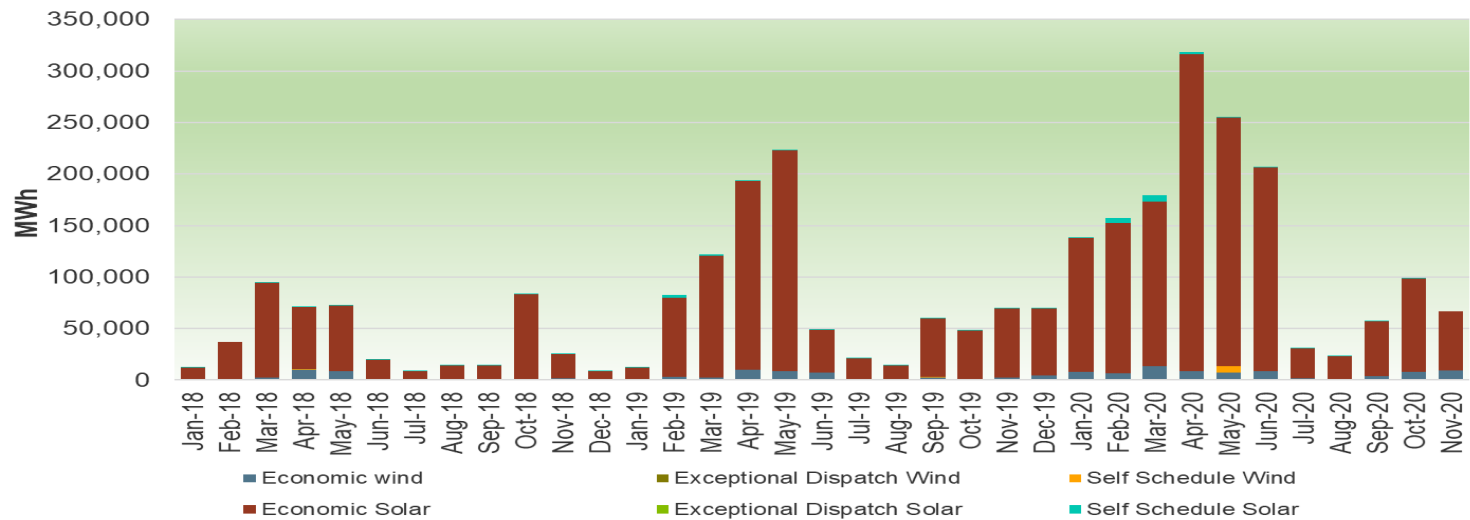
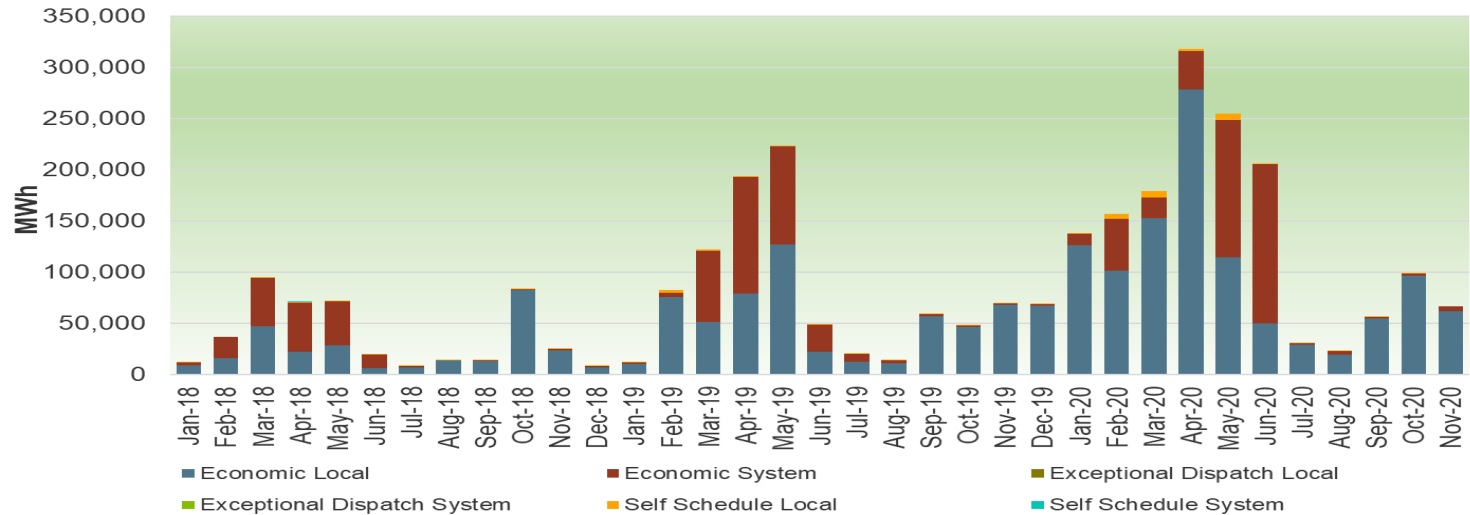
# Flexible Ramp Up Sufficiency Test Results in the last three months have observed few failures



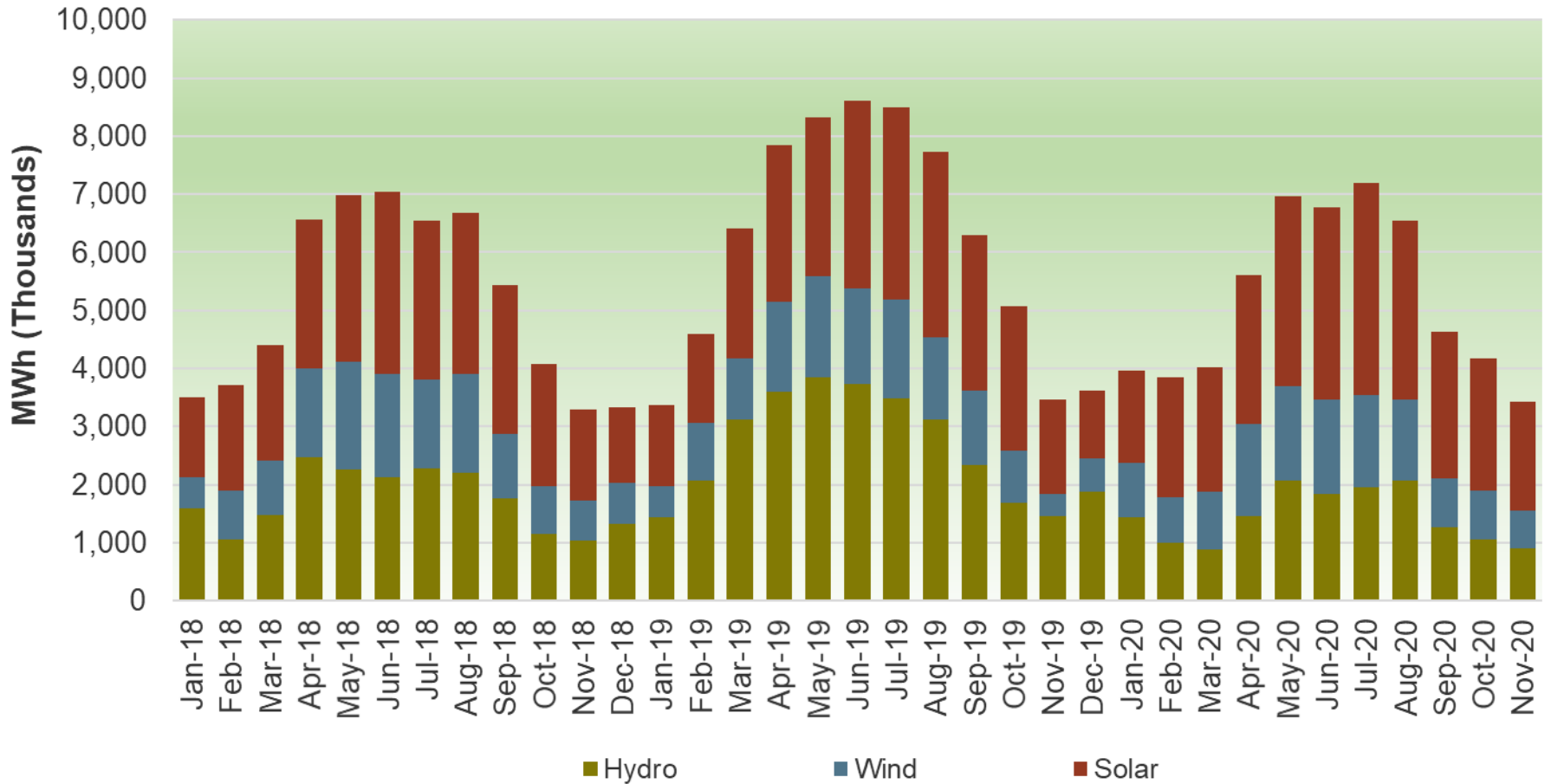
# Flexible Ramp Down Sufficiency Test Results in the last three months have seen few failures



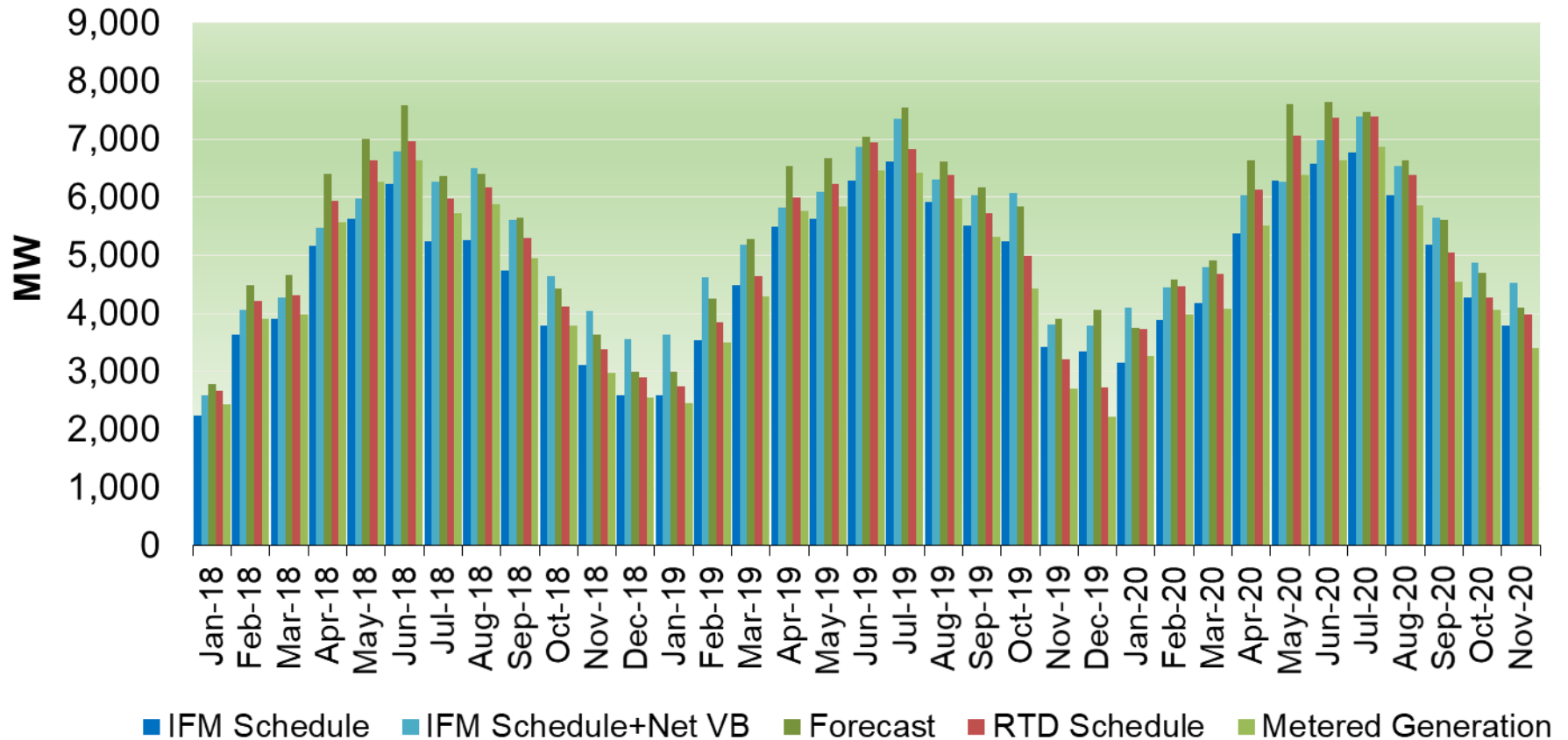
# RTD renewable (VERs) curtailment decreased in November



# Hydro production has declined in recent months following a seasonal pattern

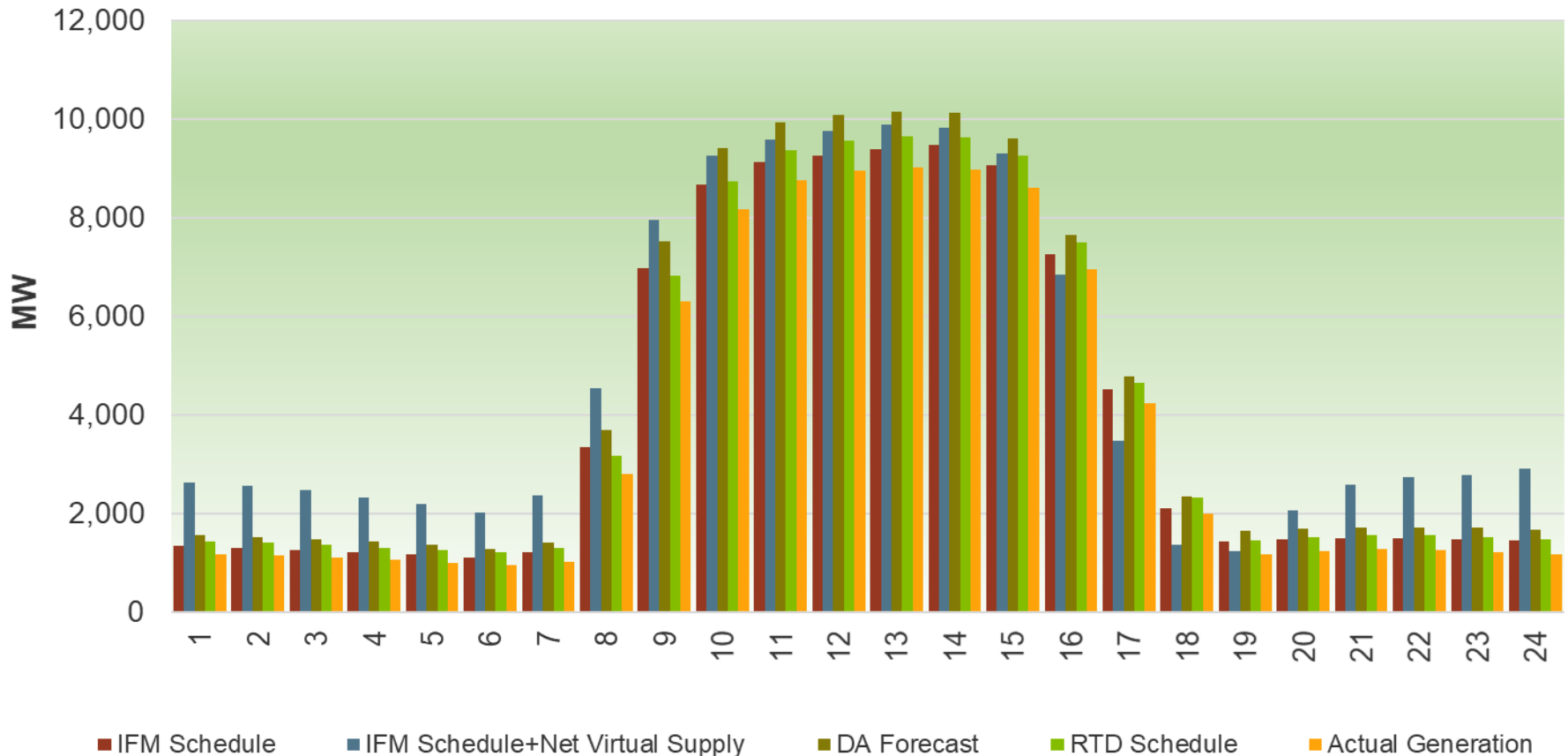


# ISO total monthly VERS schedules and forecasts compared to actuals



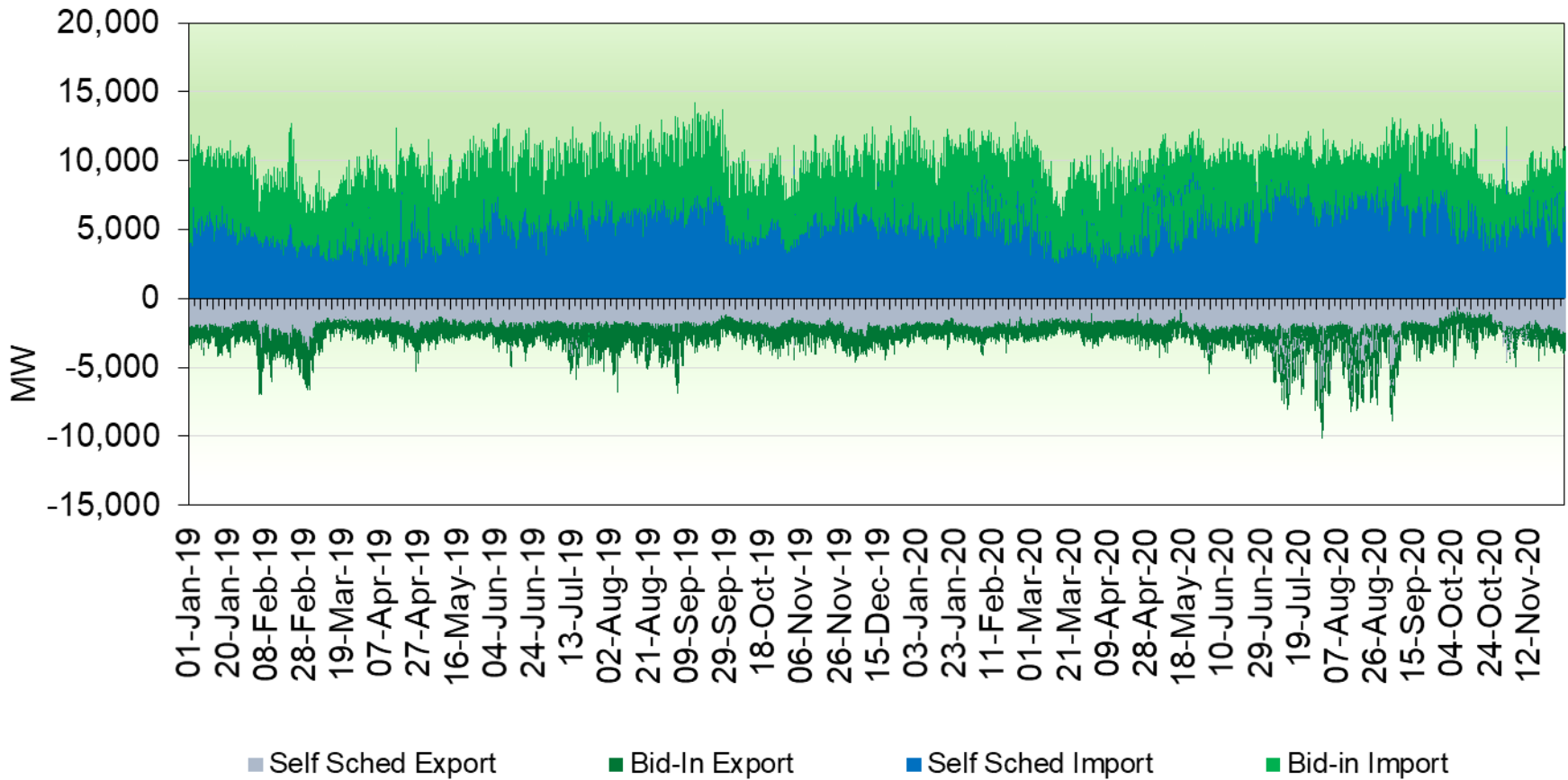


# Renewable (VERs) schedules including net virtual supply aligns with VER forecast in October and November

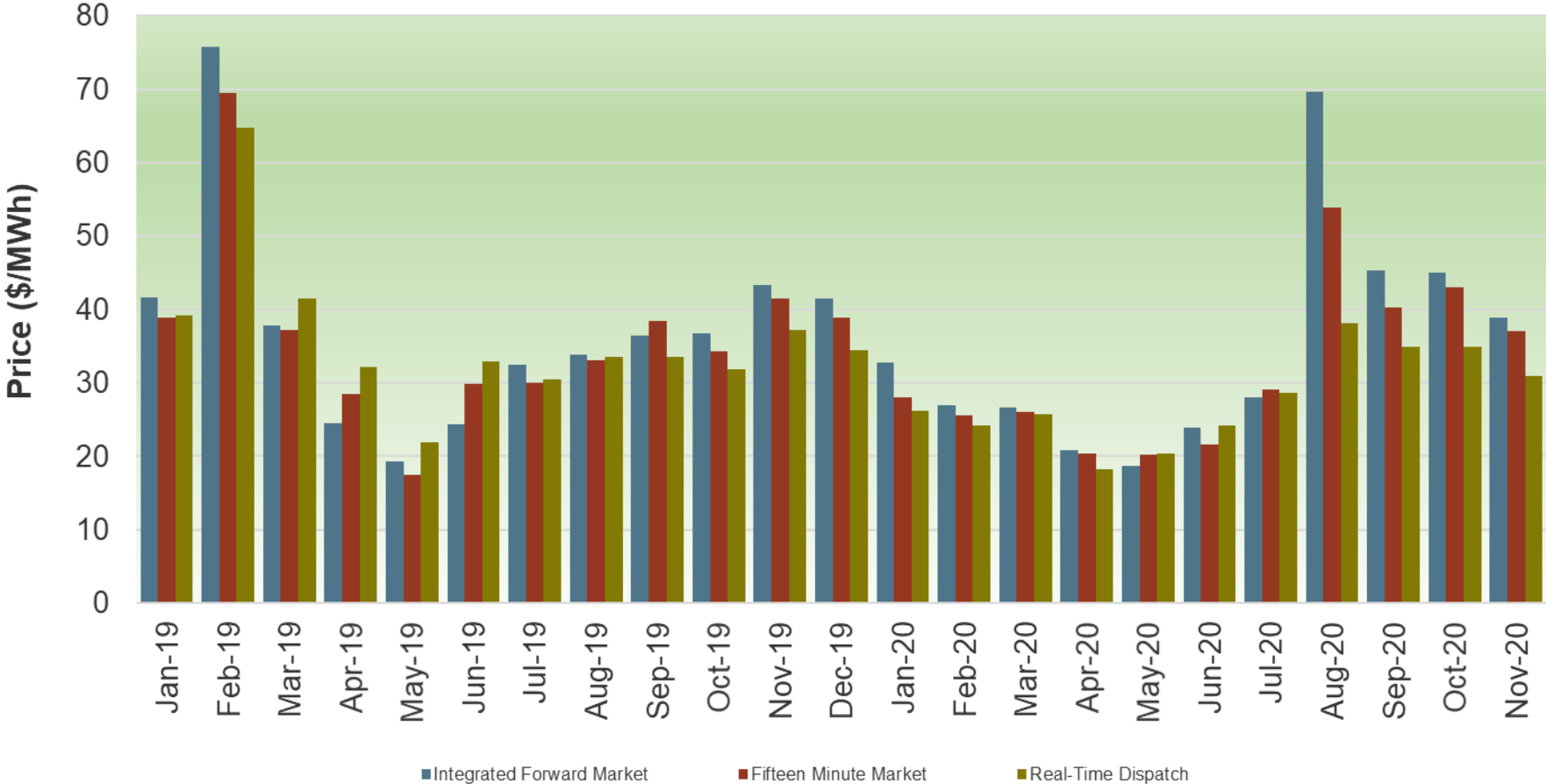


<http://www.caiso.com/Pages/documentsbygroup.aspx?GroupID=EFF75C2E-F28E-4087-B88B-8DFFAED828F8>

# Self scheduled interties in the real-time market are at typical historical levels after summer conditions

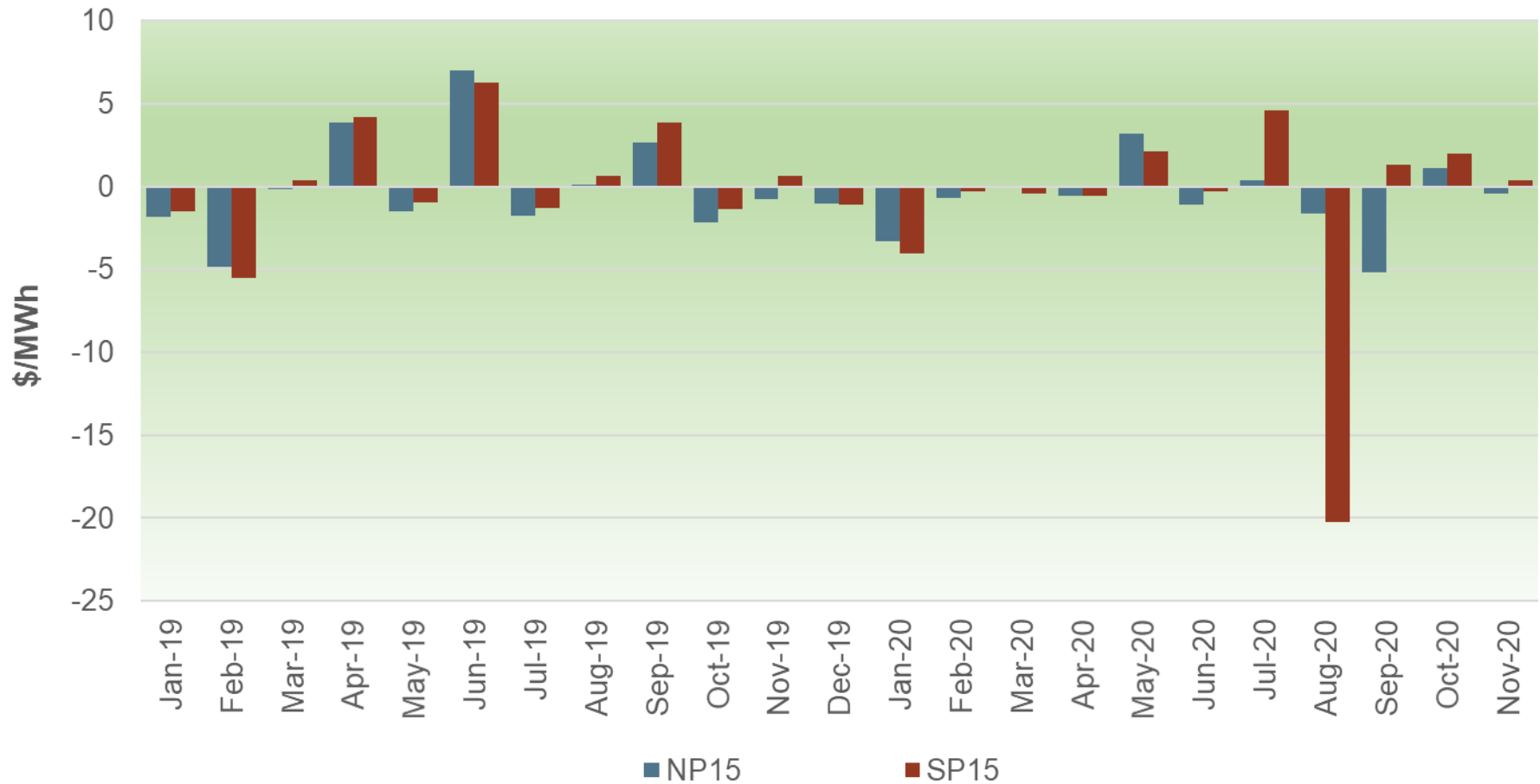


# Lower average real-time prices since August

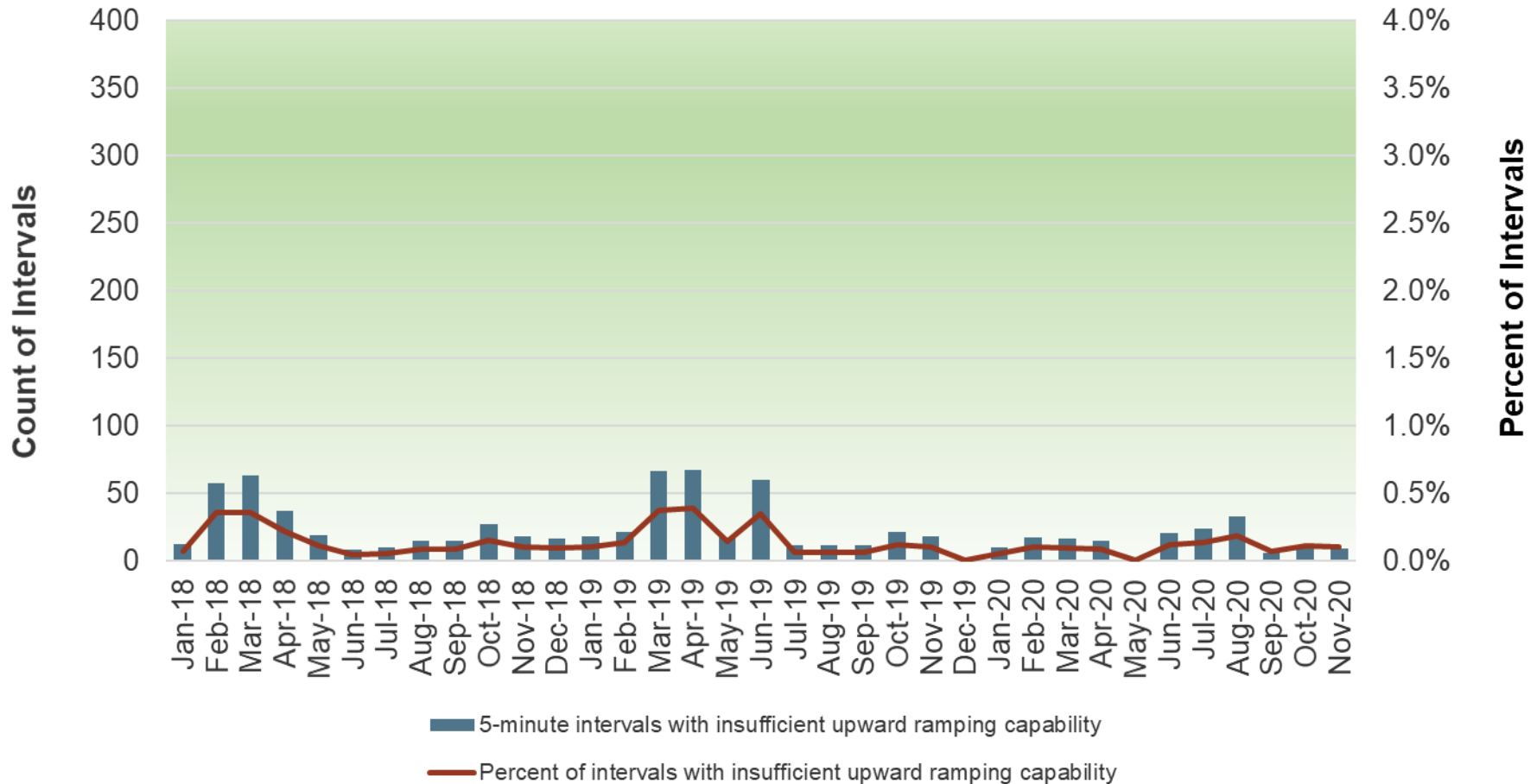


Note: Metric Based on System Marginal Energy Component (SMEC)

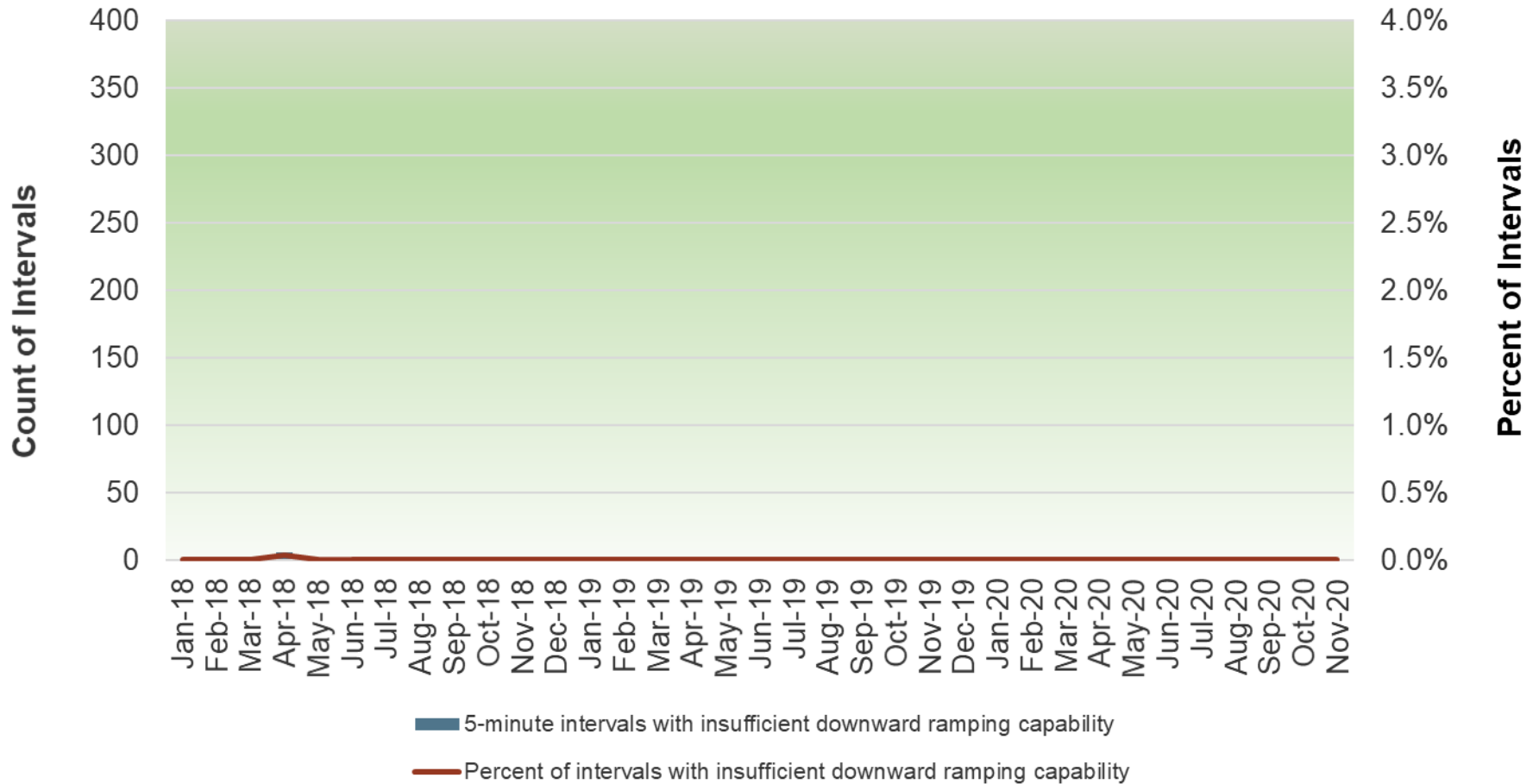
# Smaller price separations between areas and relatively higher real-time prices in SP15 after summer conditions



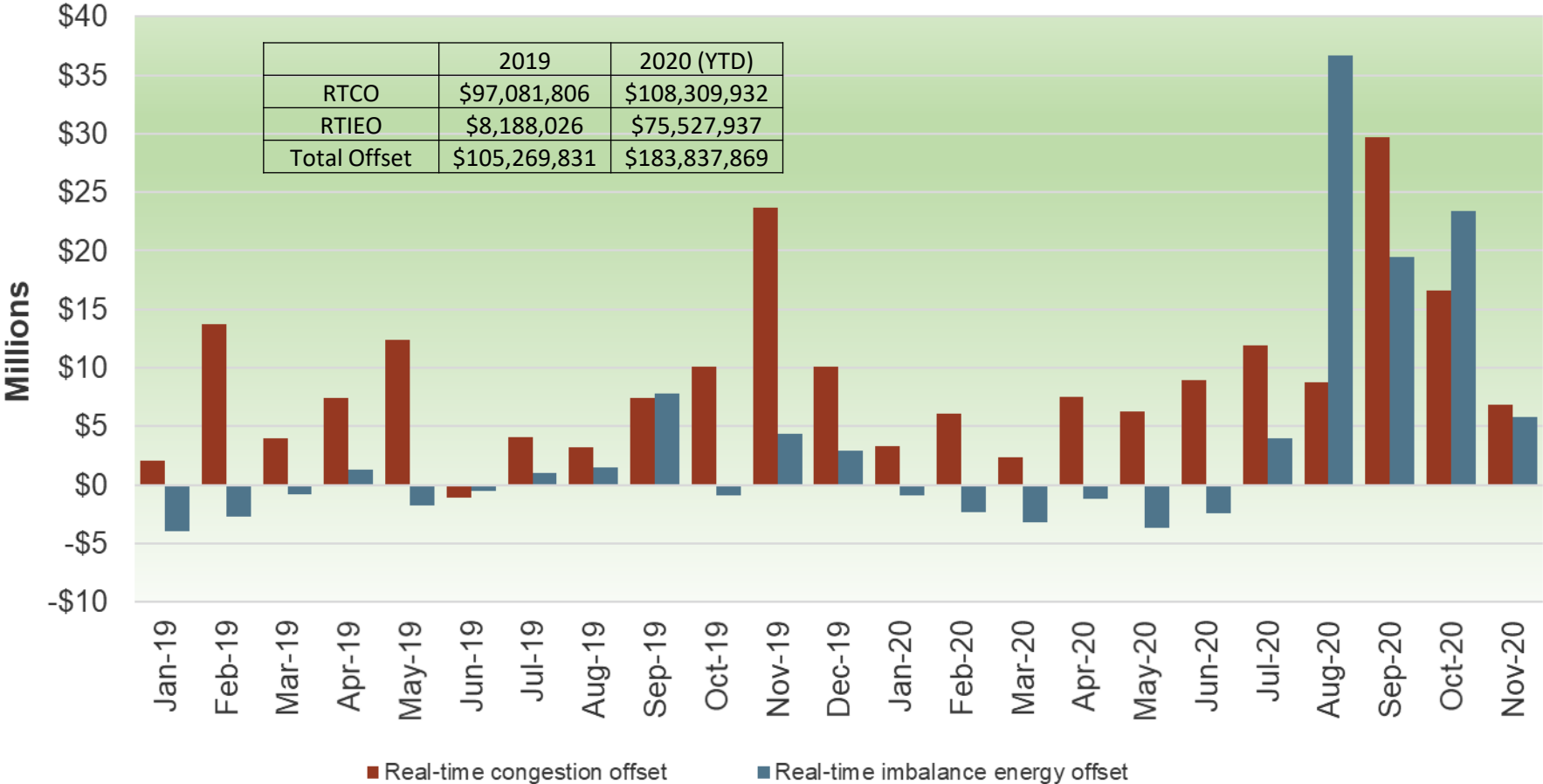
# Insufficient upward ramping capacity in ISO real-time fell in September - November



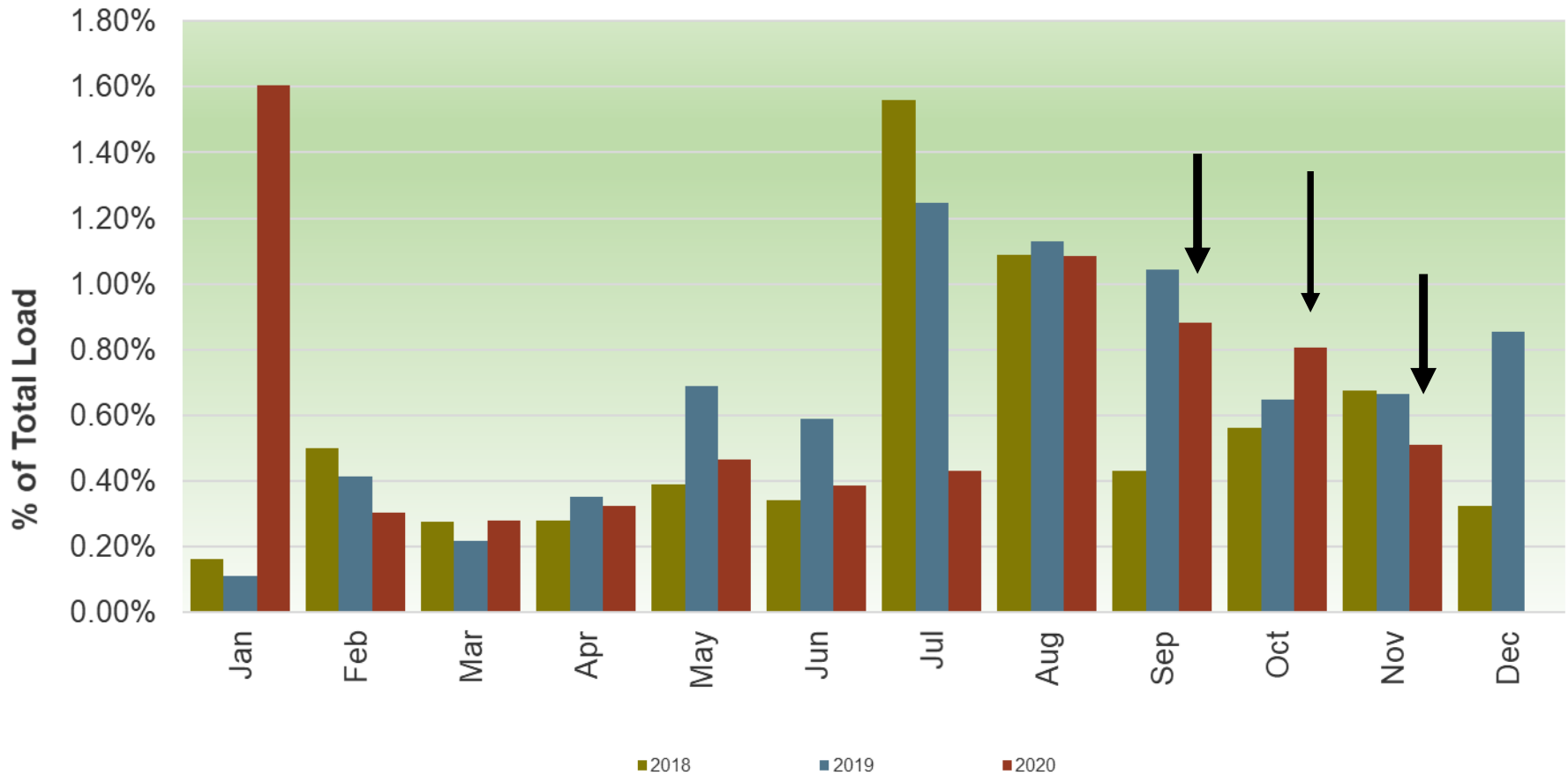
# Insufficient downward ramping capacity in real-time remained low



# ISO area real-time imbalance energy and congestion offsets decreased after peaking during the summer

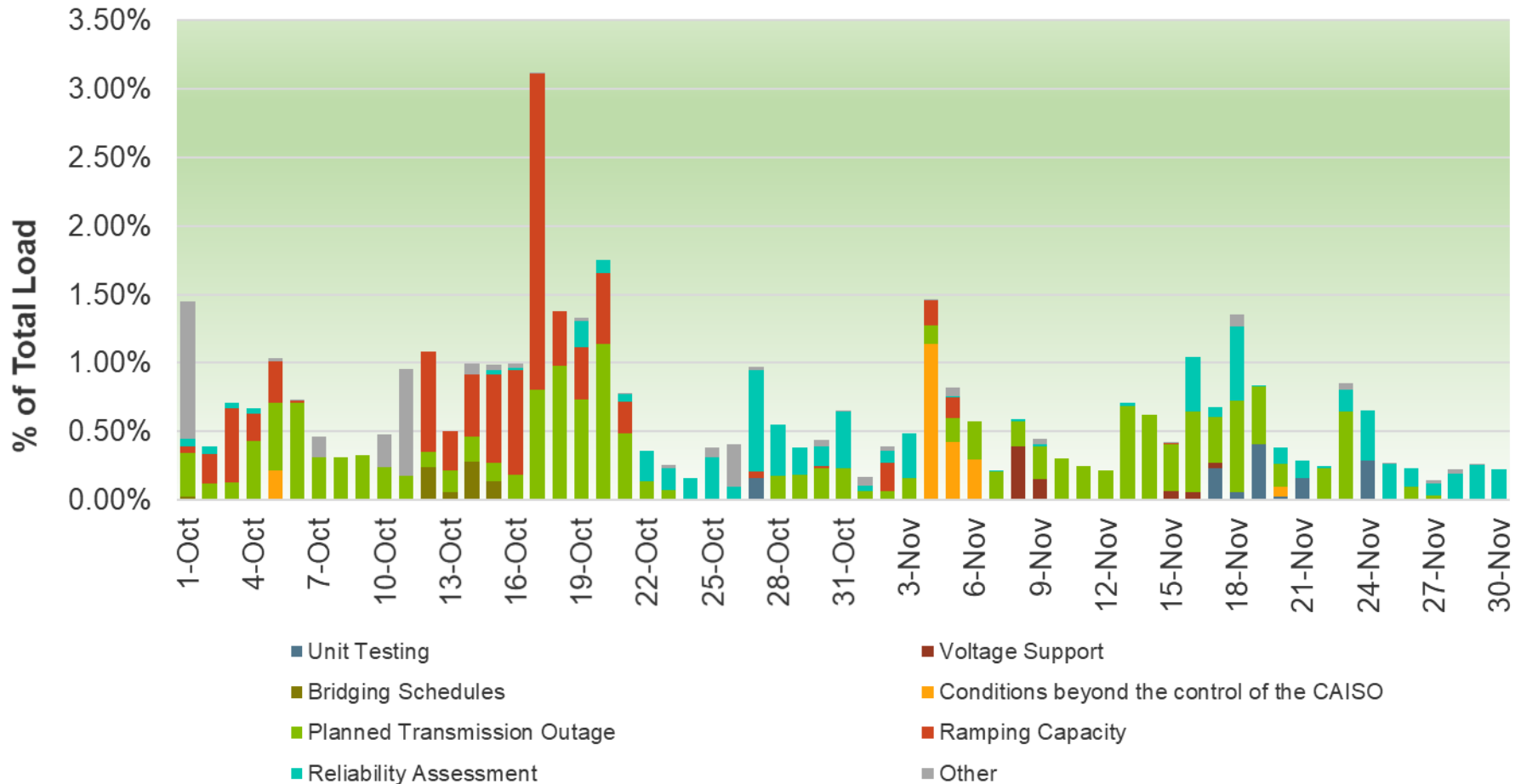


# Exceptional dispatch volume in the ISO area has declined since August

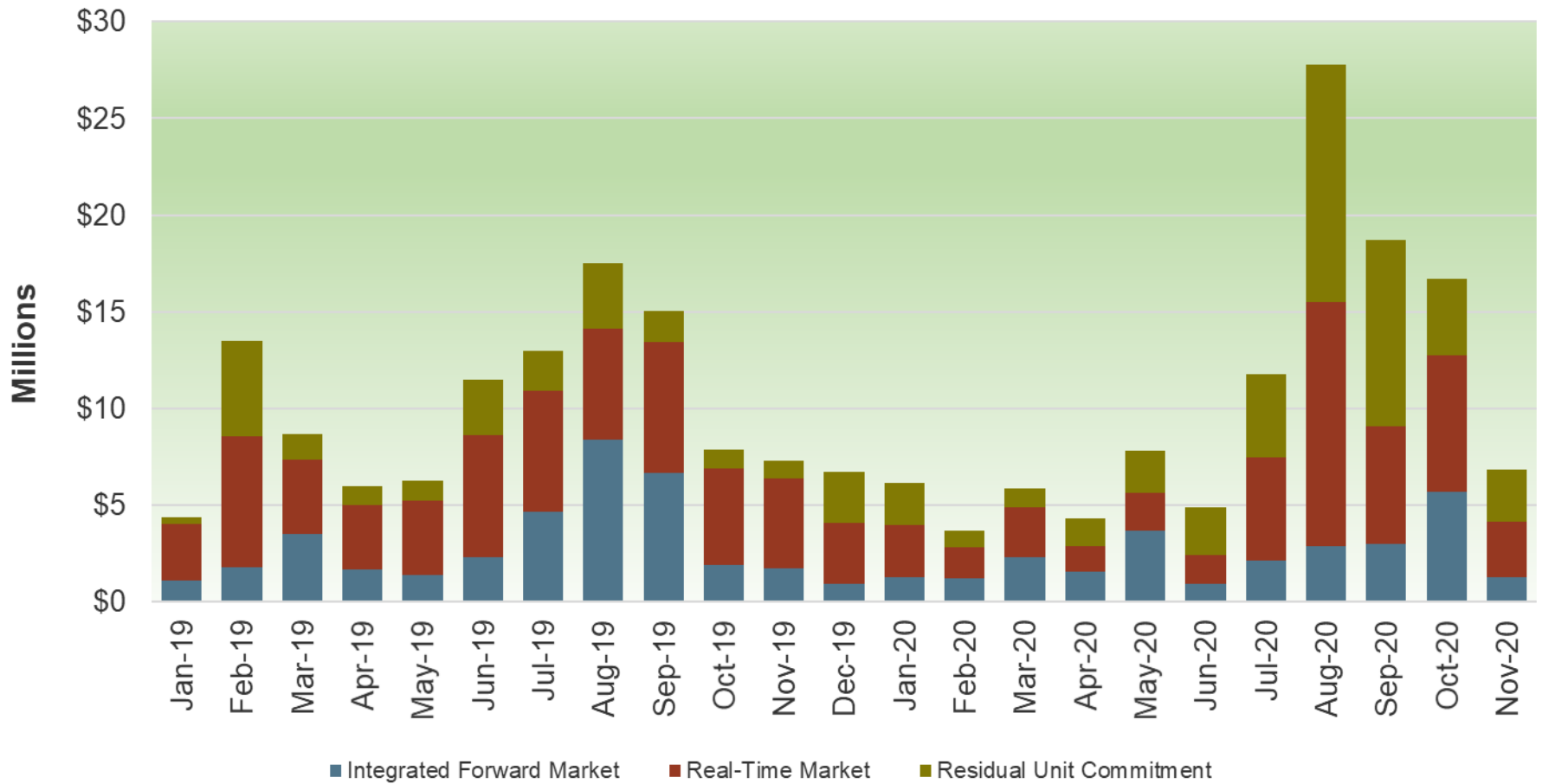




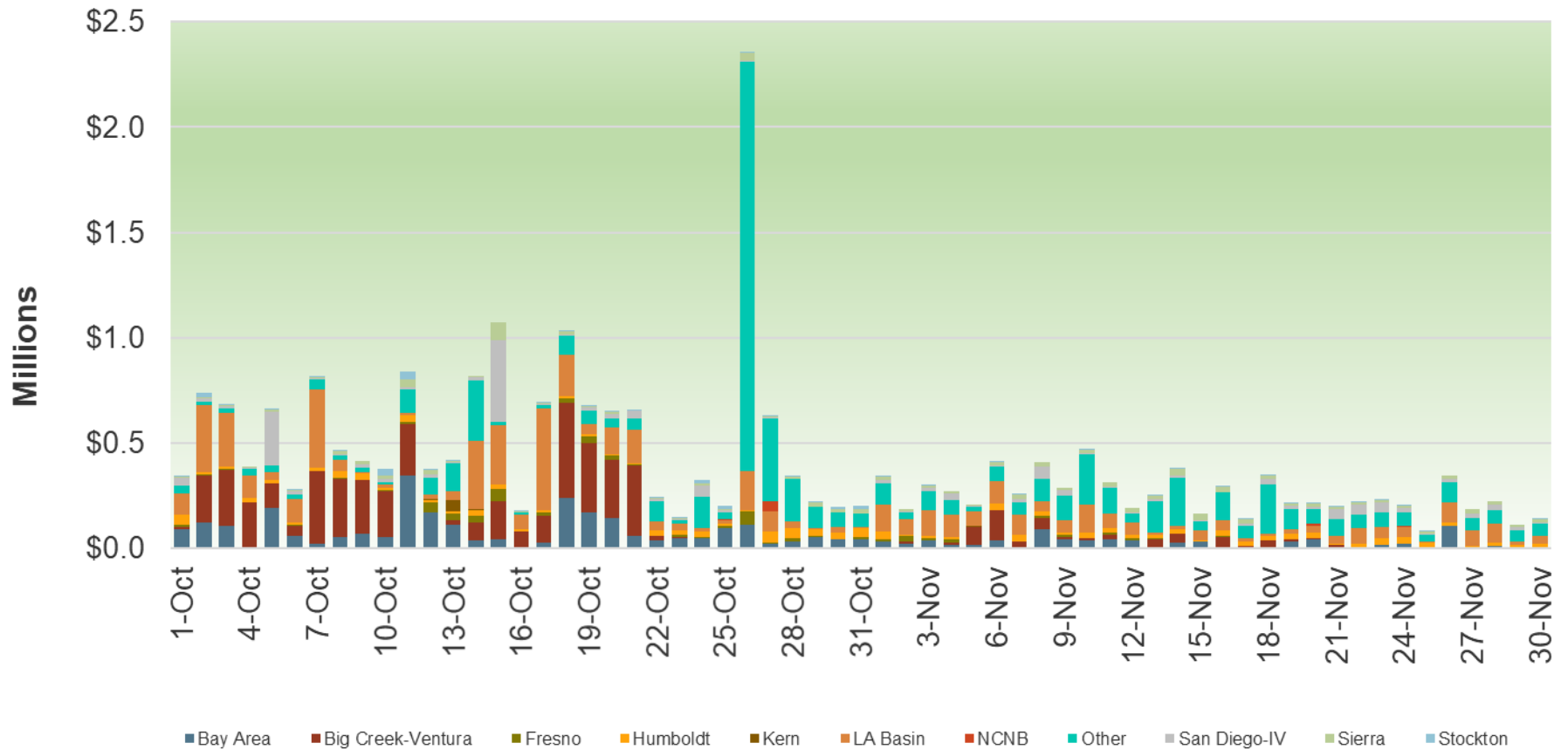
# Exceptional dispatches volume driven by a variety of reasons in October and November



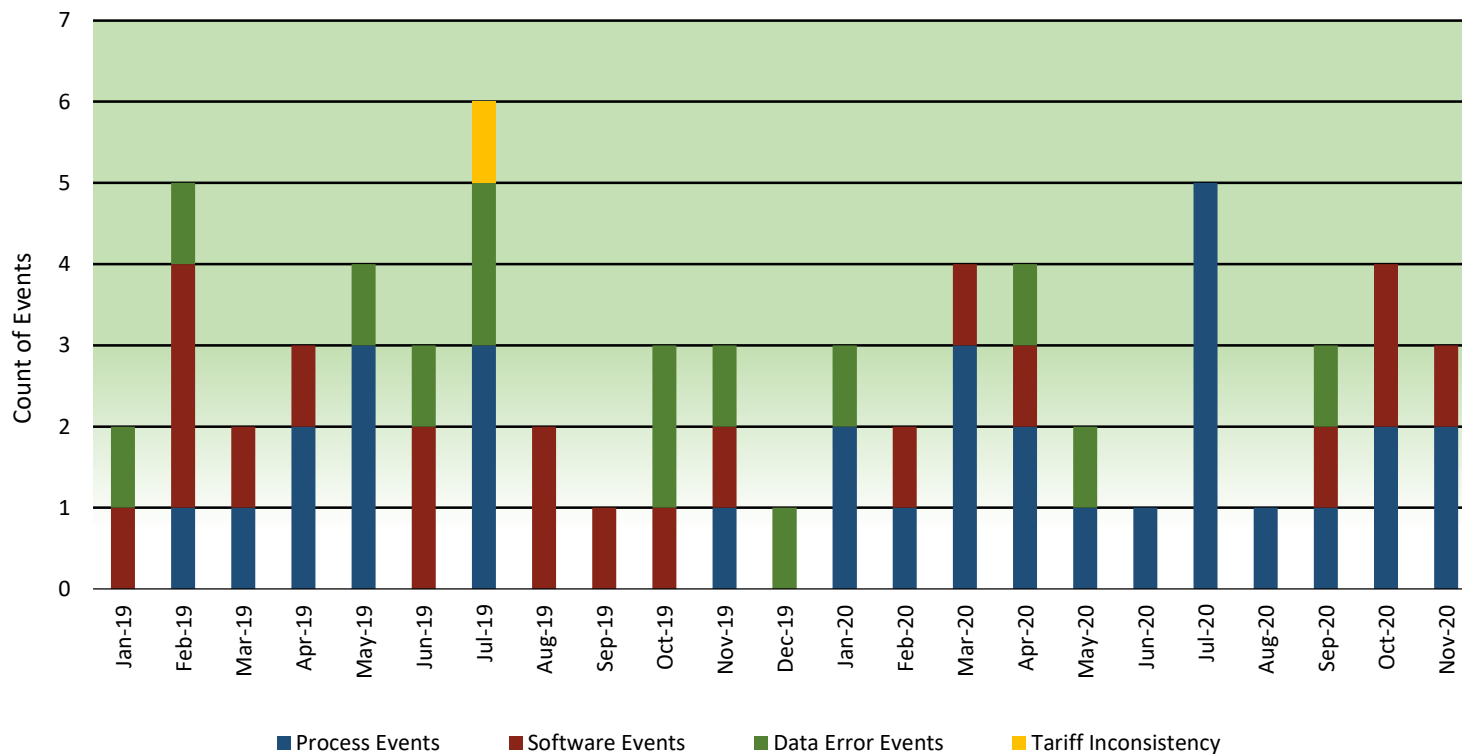
# Bid cost recovery has declined in the last month after peaking during summer conditions



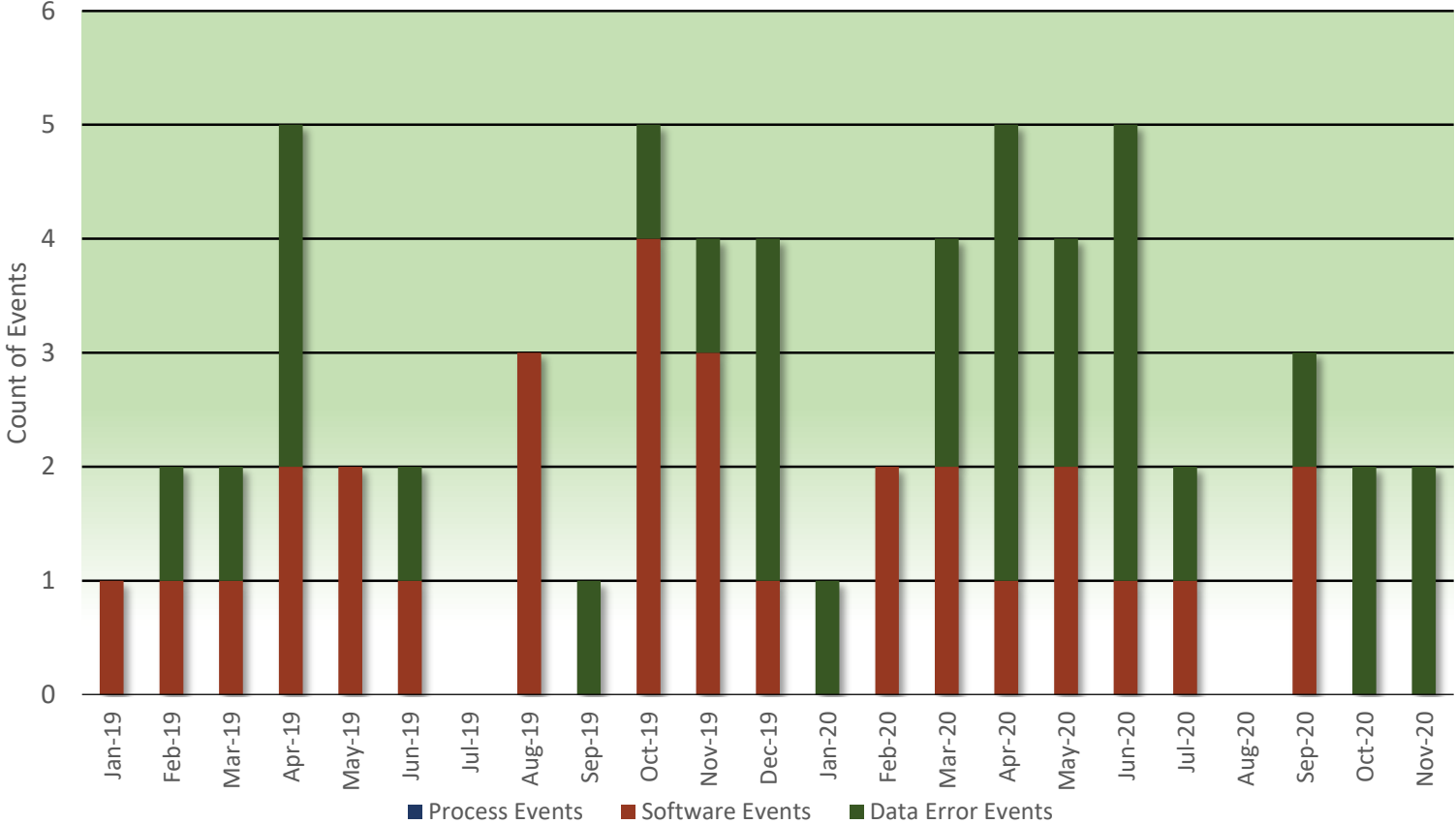
# Bid cost recovery (BCR) by Local Capacity Requirement area



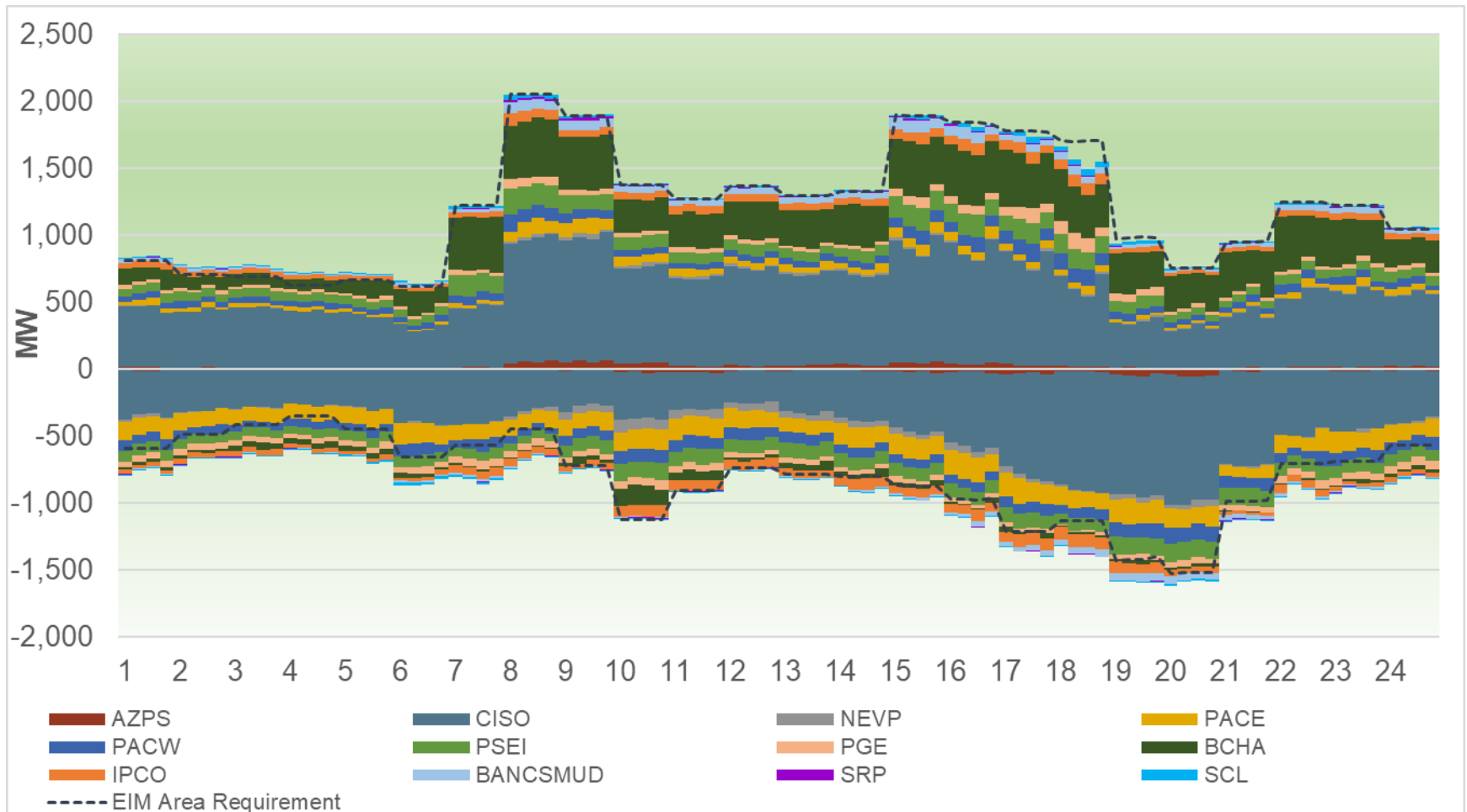
# CAISO price correction events remain within historical levels



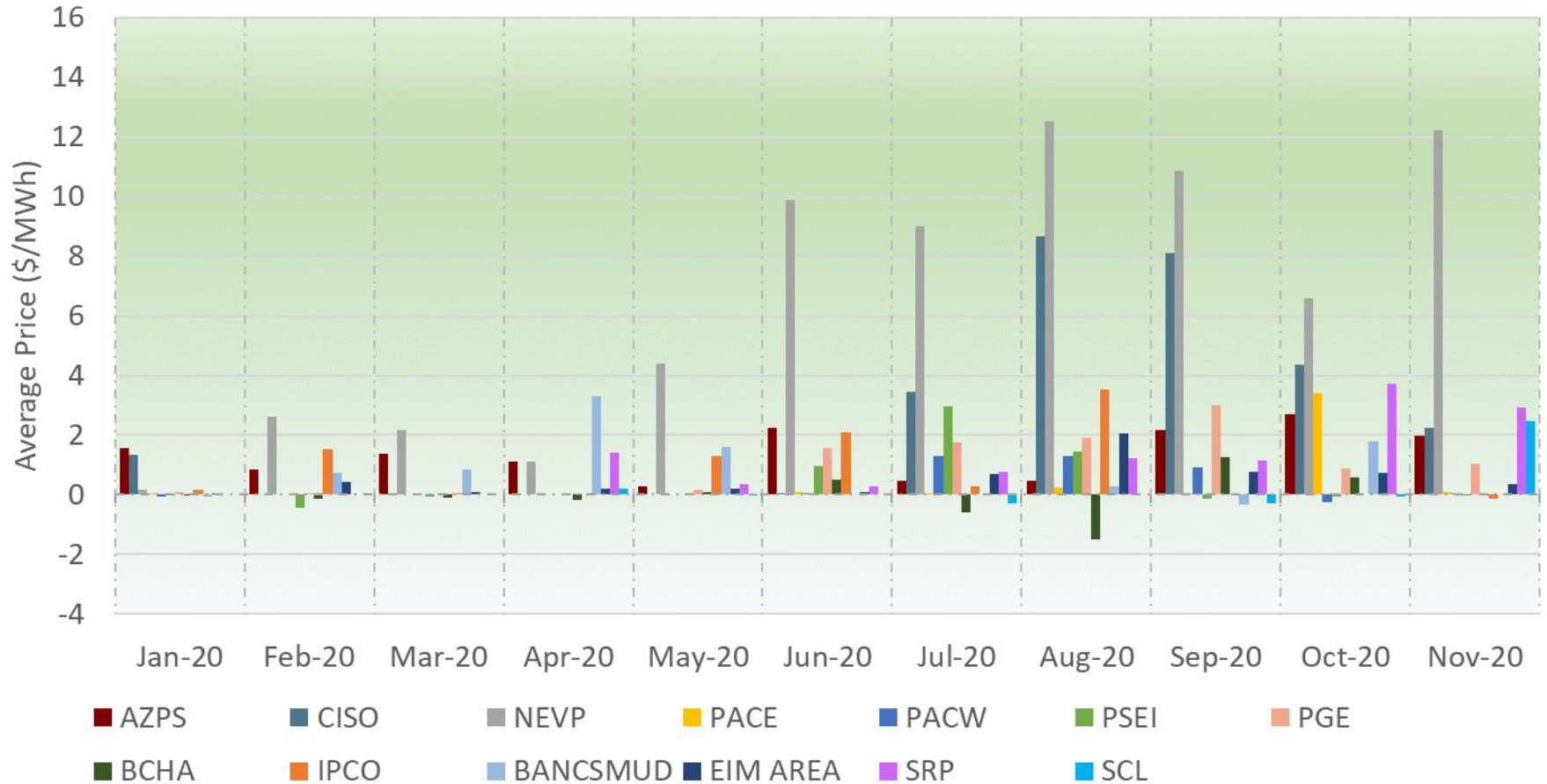
# EIM-related price corrections remain within historical levels



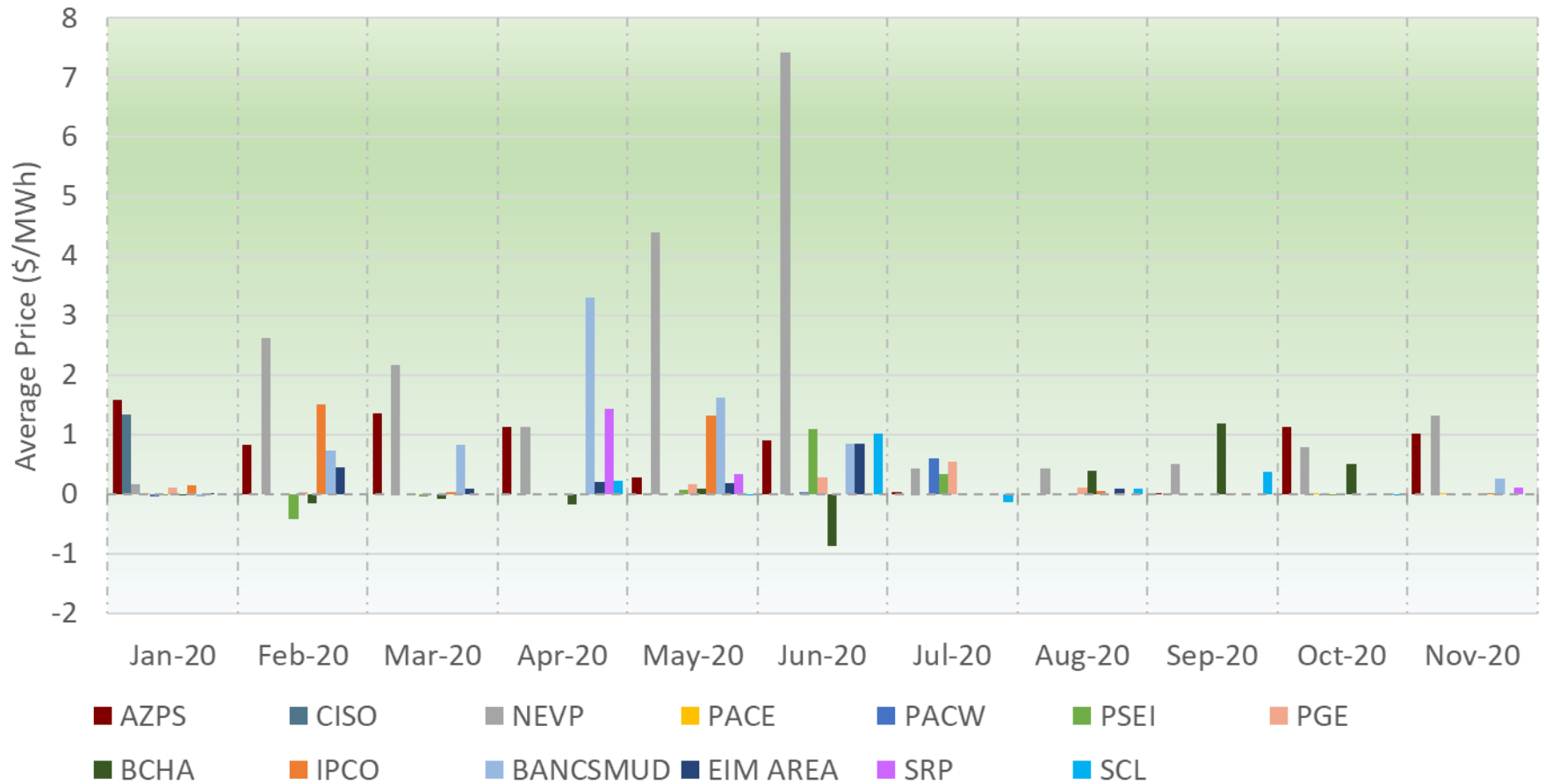
# Average Flexible Ramp Product Cleared Awards for each area with EIM Area Requirement - Sep to Nov 2020



# Average Flexible Ramp Up Price (\$/MWh)

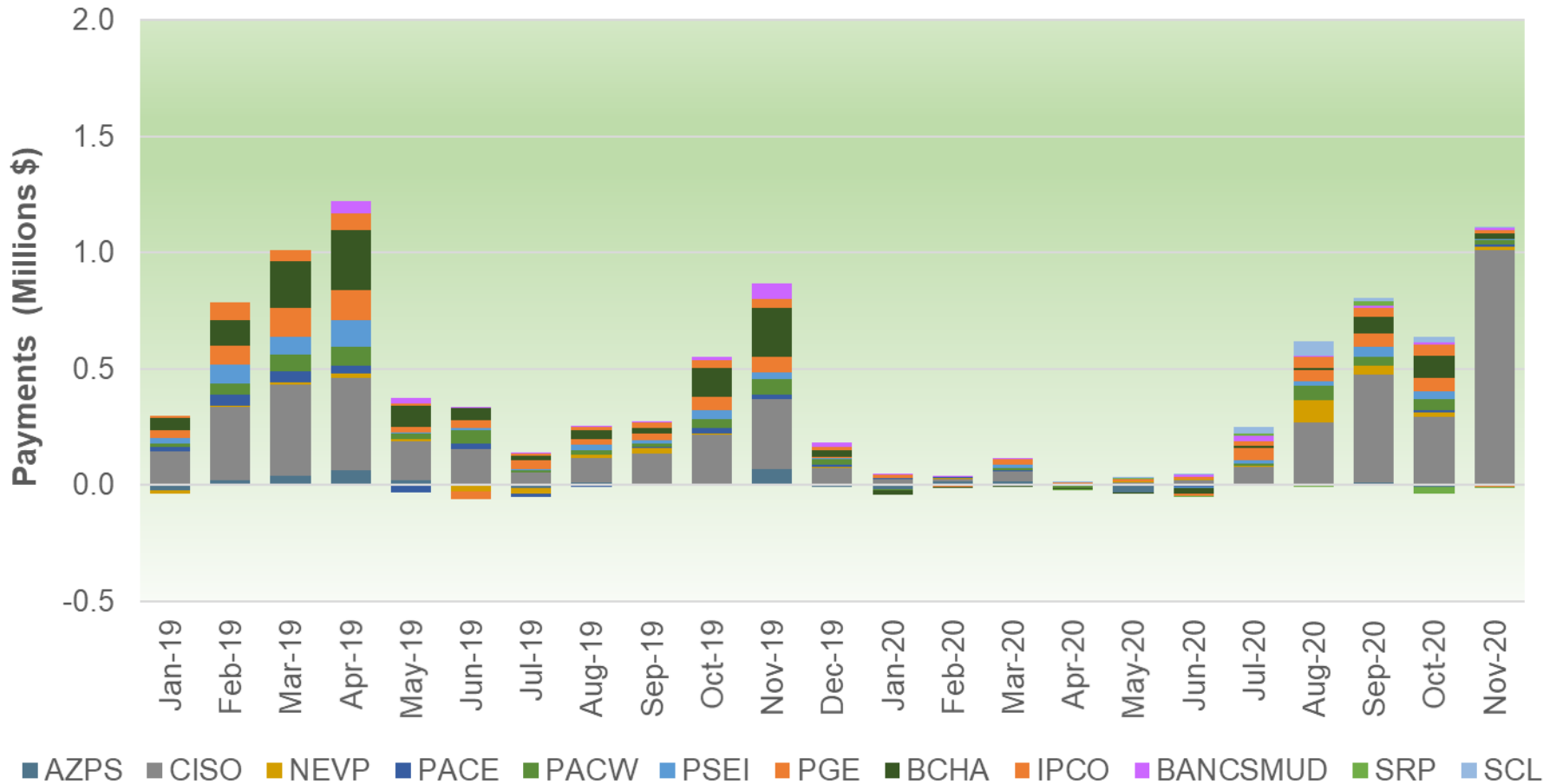


# Average Flexible Ramp Down Price (\$/MWh)

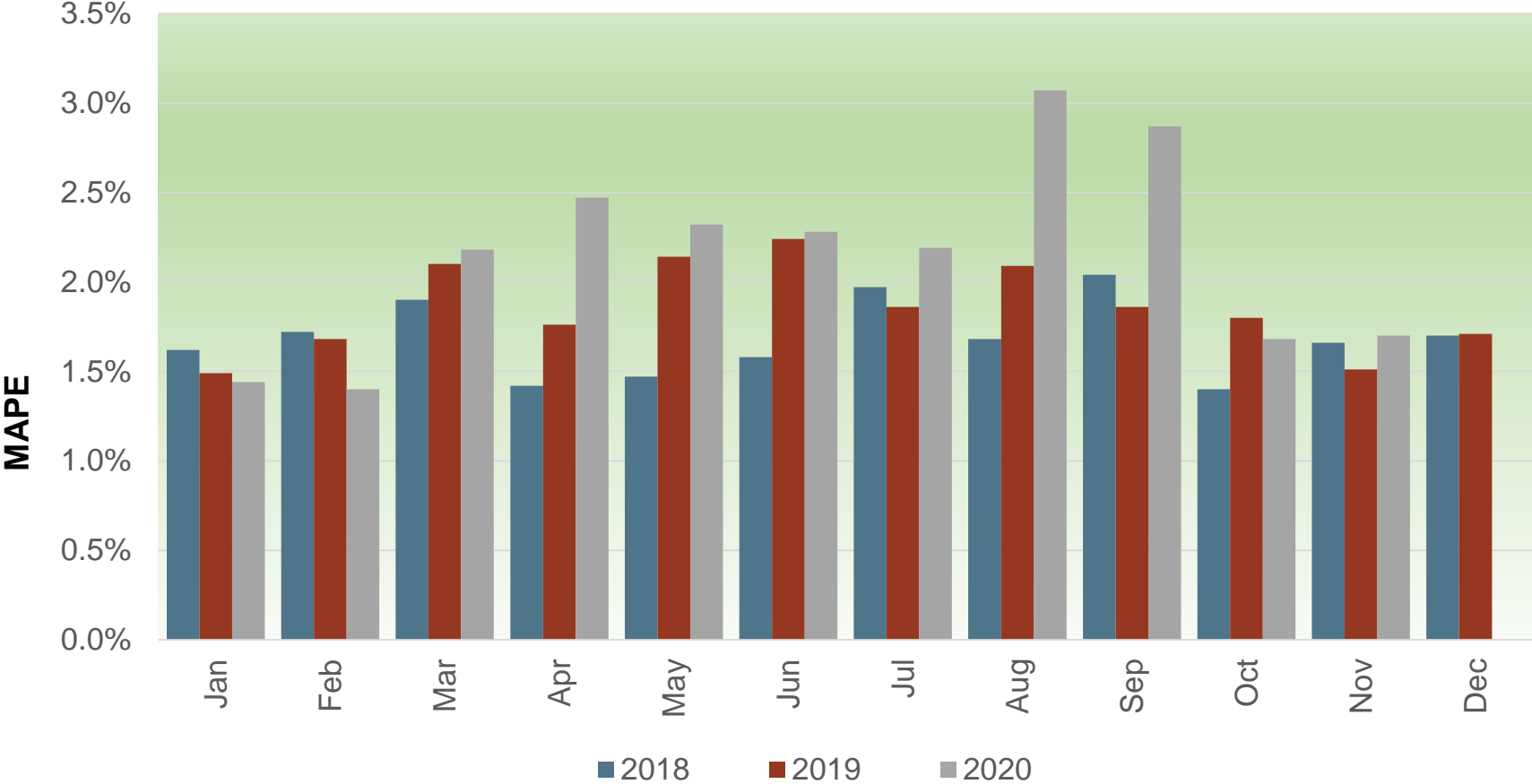




# Uncertainty Up Settlement Amount



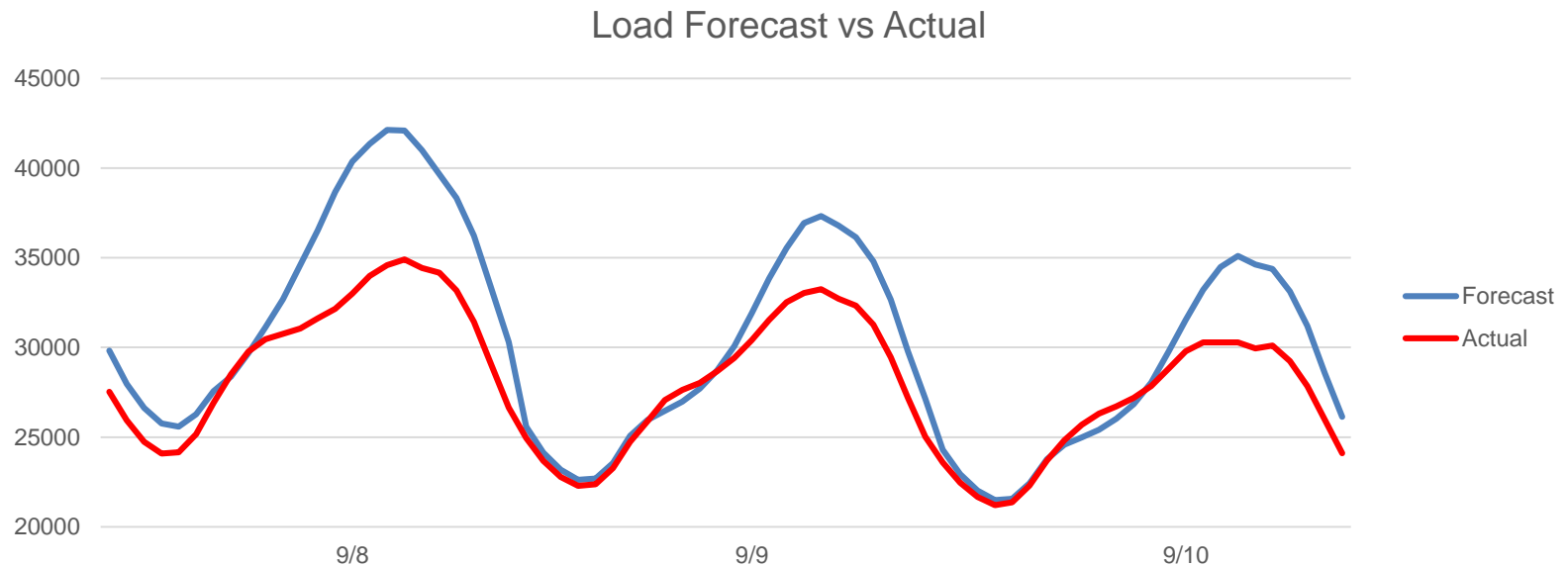
# Day-ahead load forecast



\*\*MAPE = abs(Forecast - Actual)/Actual

# September Temperature Error

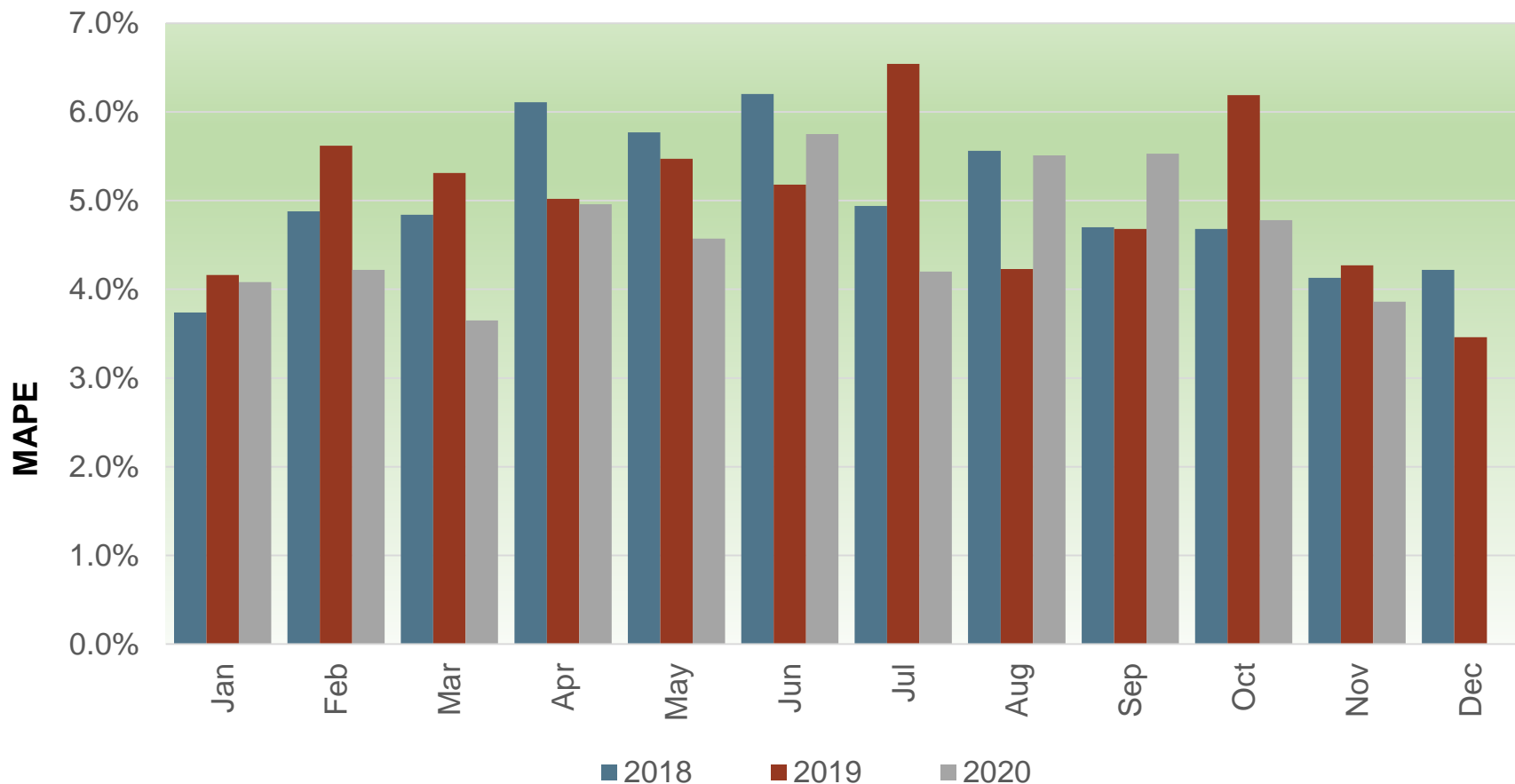
- 9/8-9/10 stayed cooler than expected across the state due to a combination of smoke and marine layer impacts; Southern California temperatures deviated 5-10 degrees from forecast, while Northern California temperatures deviated between 10-20 degrees.



# Day-ahead peak to peak forecast accuracy has improved in recent months

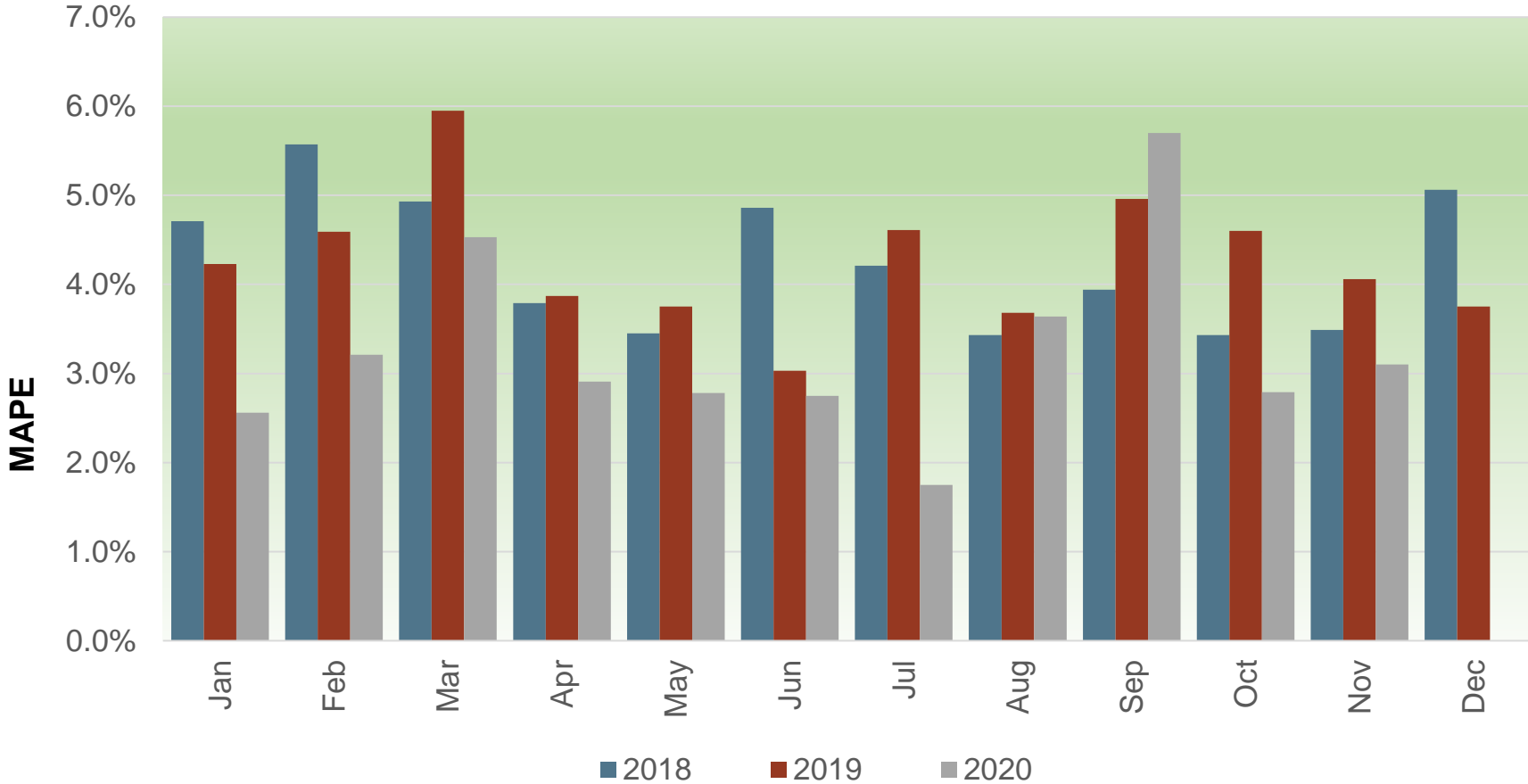


# Day-ahead wind forecast accuracy has improved in recent months



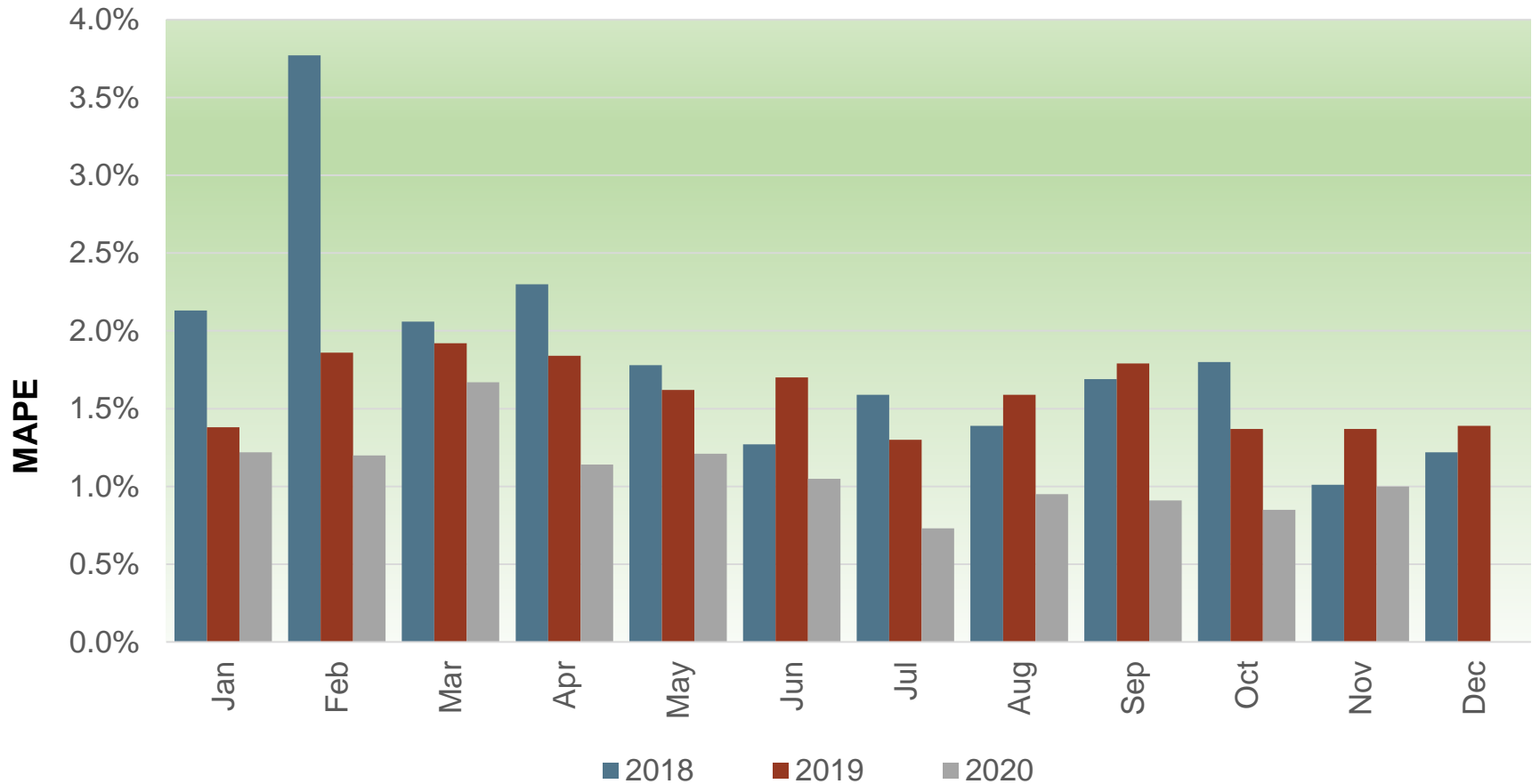
\*\*The 2017 generation data used for accuracy calculation contains the economically dispatched MW.  
\*\*MAPE =  $\text{abs}(\text{Forecast} - \text{Actual})/\text{Capacity}$

# Day-ahead solar forecast accuracy improved in recent months



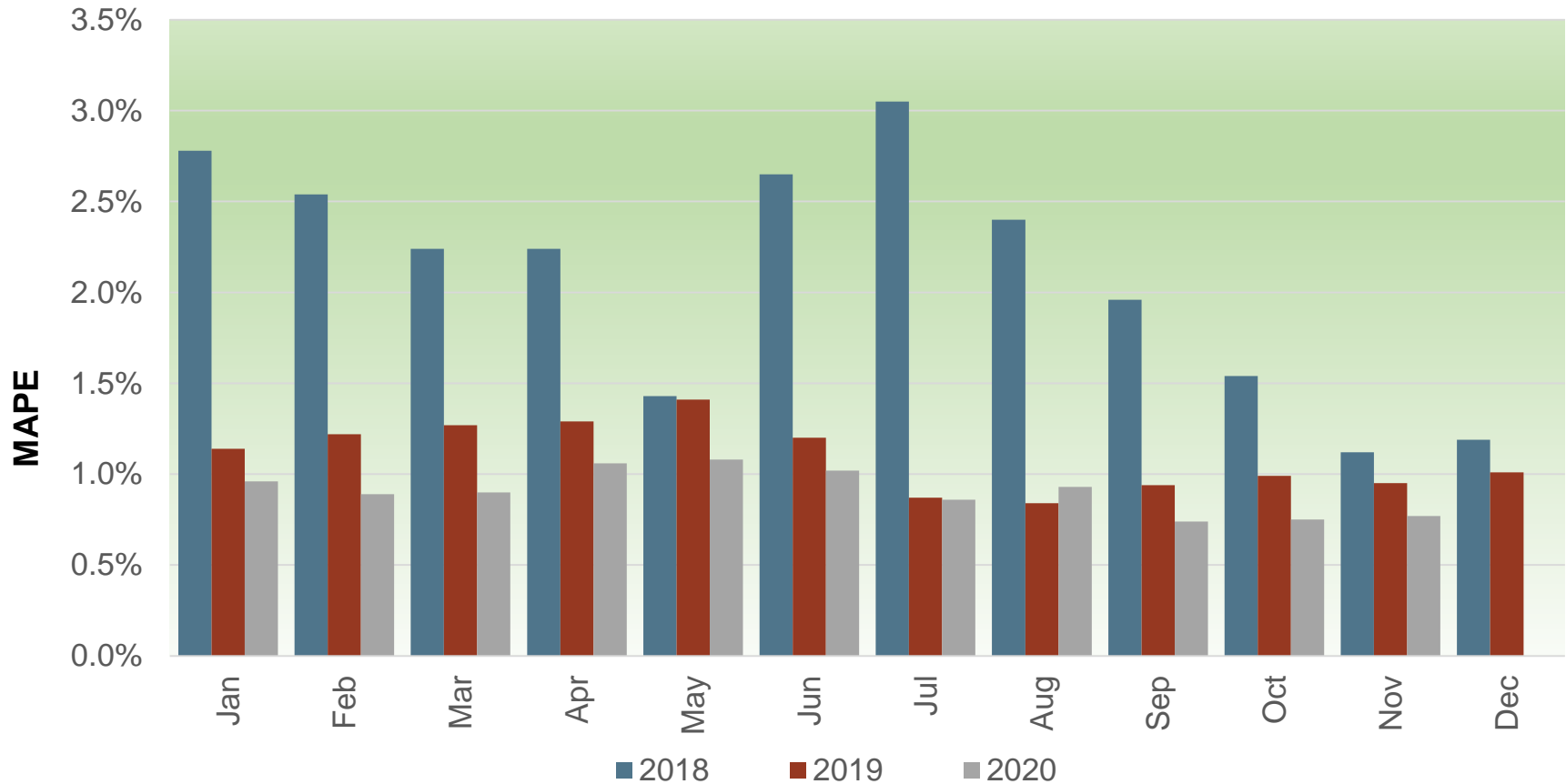
\*\*MAPE = abs(Forecast - Actual)/Capacity

# Real-time solar forecast accuracy has improved in the second half of the year



\*\*MAPE =  $\text{abs}(\text{Forecast} - \text{Actual})/\text{Capacity}$

# Real-time wind forecast accuracy remains within historical levels

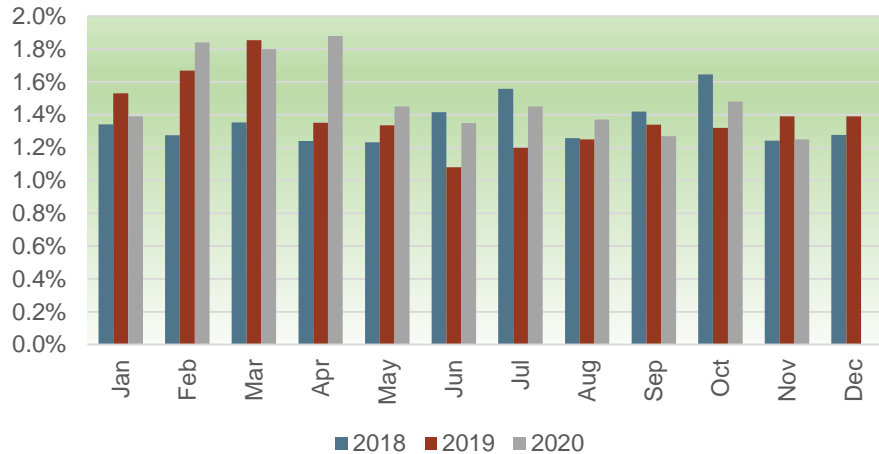


\*\*MAPE =  $\text{abs}(\text{Forecast} - \text{Actual})/\text{Capacity}$

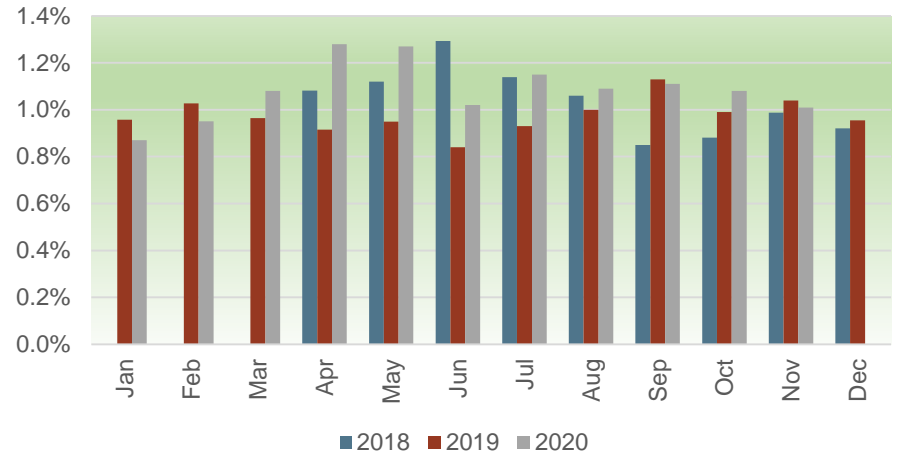


# EIM T-60 Forecast

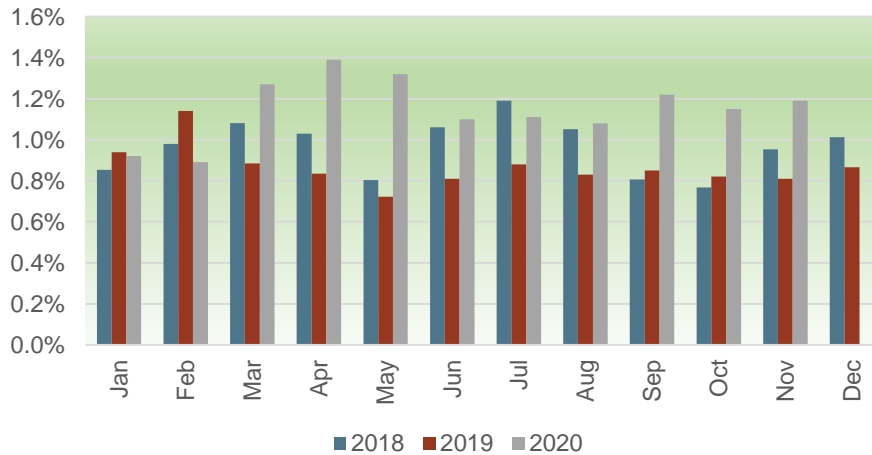
## AZPS T-60 Forecast



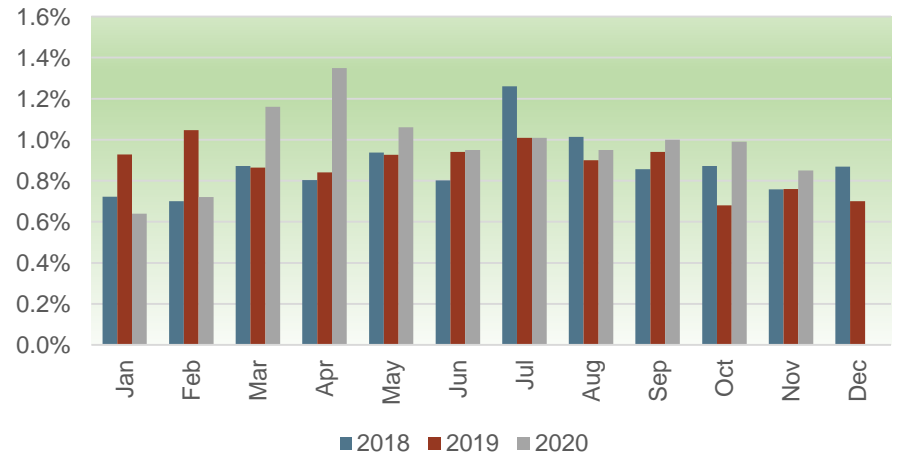
## IPCO T-60 Forecast



## PGE T-60 Forecast

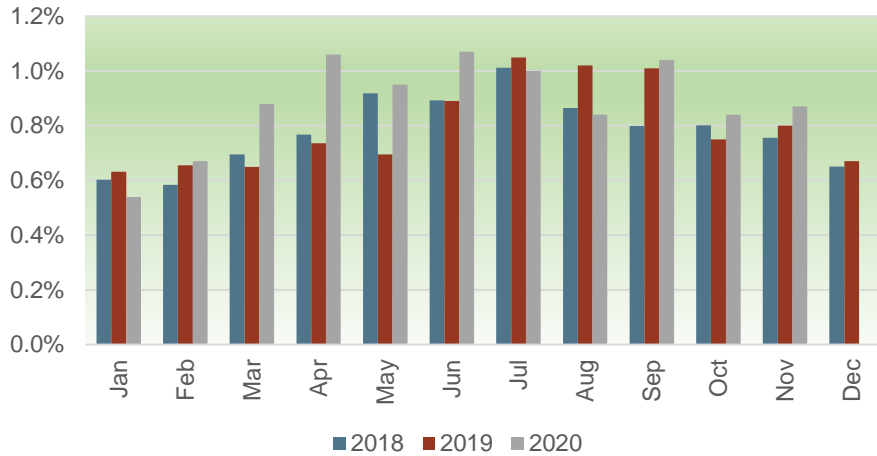


## NVE T-60 Forecast

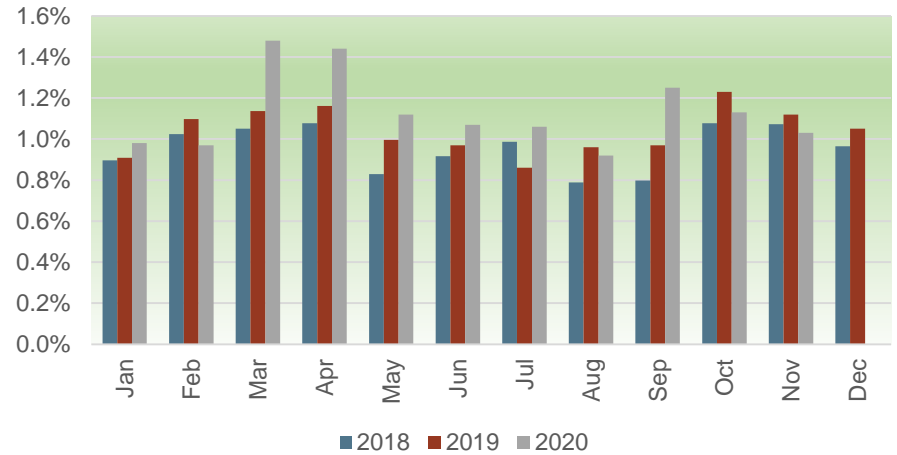


# EIM T-60 Forecast

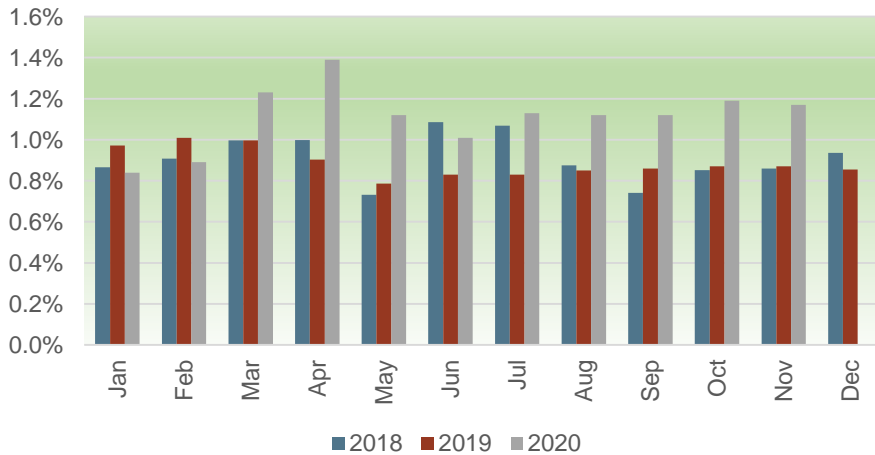
## PACE T-60 Forecast



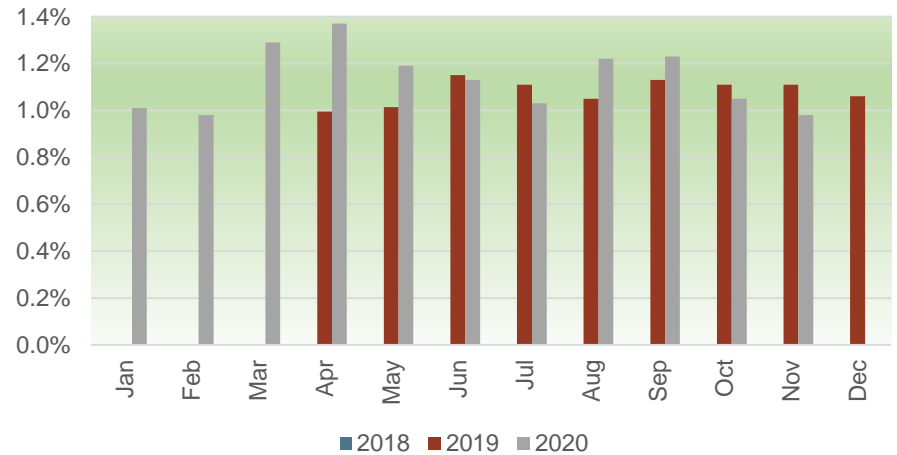
## PACW T-60 Forecast



## PSE T-60 Forecast

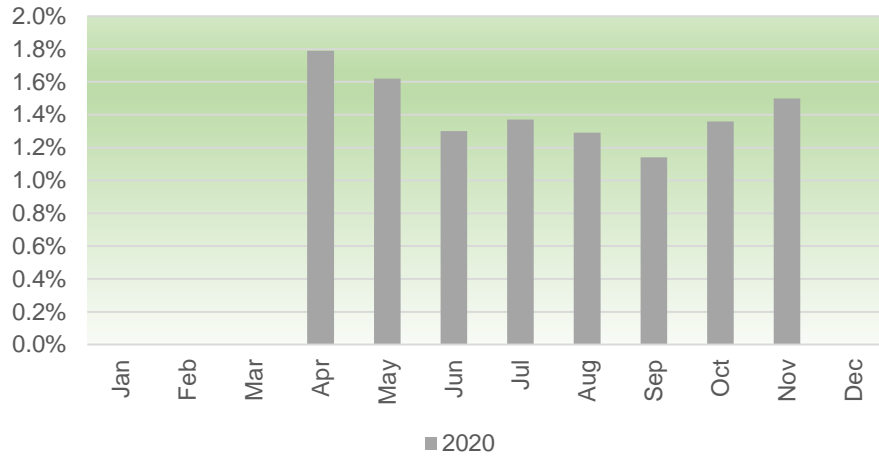


## SMUD T-60 Forecast

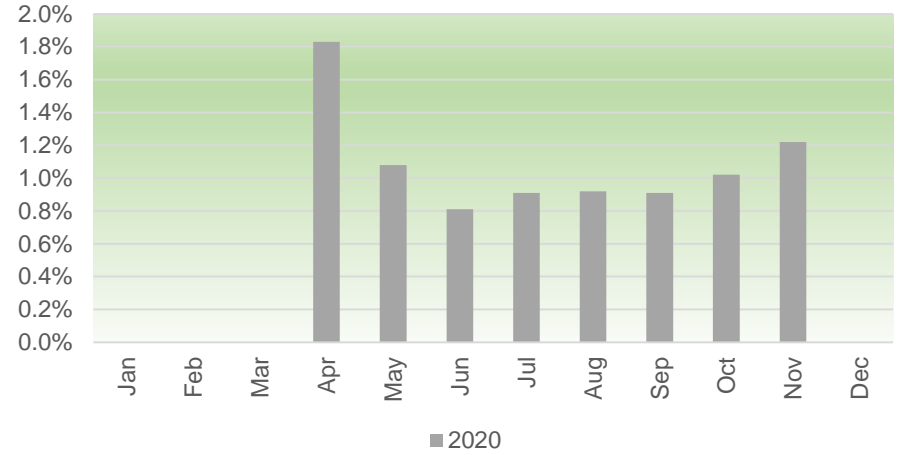


# EIM T-60 Forecast

## SRP T-60 Forecast



## SCL T-60 Forecast



# Policy Update

John Goodin

Senior Manager, Infrastructure & Regulatory Policy

Brad Cooper

Senior Manager, Market Design Policy

# Energy Storage and Distributed Energy Resources – Phase 4

- Status:
  - Initiative received ISO Board of Governors approval on October 1 for the following:
    1. Optional end-of-hour state-of-charge parameter for storage resources
    2. Maximum daily run time parameter to better reflect demand response resource operational characteristics
    3. Streamlining market participation agreements for non-generator resource participants
  - Tariff language drafted, published and stakeholder comments addressed for these elements
  - Business Requirements Specifications (BRS) in development, anticipate Q1 2021 external publication
    - Will include approved default energy bid (DEB) proposal
  - Fall 2021 scheduled implementation

# Energy Storage and Distributed Energy Resources – Default Energy Bid for Storage

- Scope: Apply market power mitigation and develop a default energy bid for storage resources
- Status:
  - The final proposal was published and discussed in a stakeholder call in October
  - December 16-17 ISO Board decision
  - ISO will submit tariff language to FERC with other language from the ESDER 4 initiative- likely file Q2 or Q3
  - Development completion is planned with ESDER 4 for Fall 2021

# Hybrid Resources Initiative

- Scope: Aggregate Capability Constraint (ACC)
  - Status:
    - Several resources will have this constraint applied within the next month
    - Resources with ACC are not eligible to provide AS until Fall 2021
- Scope: Allowance for co-located storage deviation from dispatch
  - Status:
    - File in early 2021; allowance will be effective after FERC approval
- Scope: Additional tools for hybrid resources
  - Status:
    - On track for implementation in Fall 2021 with software release

# Resource Adequacy Enhancements Initiative

- No EIM Governing Body role- CAISO BAA specific policy
- Status:
  - Phase 1 items:
    - Draft final proposal to be posted by December 17, 2020
    - Final Proposal February 2021
    - ISO Board decision March 2021
  - Phase 2 items:
    - Sixth revised straw proposal posted by December 17, 2020
    - ISO Board decision proposed May 2021 and Sept 2021
      - Flexible RA likely Sept 2021; all else May 2021



# Resource Adequacy Enhancement Initiative

## *Elements and Phases*

**Scope:** Reforms needed to the ISO's resource adequacy rules, requirements, and processes to ensure the future reliability and operability of the grid

- Phase 1 - Implementation 2021 (RA Yr. 2022)
  - Planned Outage Process Enhancements
  - RA Import Reform
  - Minimum Charge Requirement
  - Backstop Capacity Procurement for local energy insufficiency
- Phase 2 - Implementation 2022 (RA Yr. 2023)
  - Portfolio Assessment
  - Unforced Capacity (UCAP) Counting
  - Minimum System RA Requirement
  - Day-ahead market enhancements alignment
    - Must offer obligations and bid insertion modifications
    - Flexible Resource Adequacy
  - Backstop Capacity Procurement for portfolio assessment deficiencies

# Real-Time Settlement Review

- Scope:
  - Review real-time market settlement charges to ensure consistency with cost allocation principles
  - Proposes various settlement changes associated with transfer schedule changes, unaccounted for energy, and bid cost recovery cost allocation
- EIM Governing Body primary approval role for transfer and unaccounted for energy changes, advisory role for bid cost recovery allocation change
- Status:
  - EIM Governing Body approved at December 2020 meeting
  - Bid cost recovery change will be presented to ISO Board at December 2020 meeting

# System Market Power Mitigation

- Scope:
  - Develop real-time market system-level market power mitigation for the ISO balancing authority area
- EIM Governing Body advisory role
- Status:
  - Revised draft final proposal posted in September
  - Deferred from November board meeting to further assess impacts under tight supply conditions
  - Maintaining ability to still implement by Summer 2021 if appropriate

## Western EIM sub-entity scheduling coordinator role

- Scope: Allow multiple scheduling coordinators in an EIM entity BAA to directly schedule and settle non-participating loads and resources
- EIM Governing Body primary approval role
- Status:
  - Issue paper/straw proposal posted November 5
  - Revised straw proposal to be posted January 21
  - May 2021 EIM Governing Body and ISO Board meetings

# Day-Ahead Market Enhancements

- Scope:
  - Co-optimizing supply based on both cleared demand and imbalance reserve product needs
- EIM Governing Body Role:
  - EIM Governing Body Charter specifies advisory role for components that change generally applicable real-time market rules
  - However, Management will request that the ISO Board of Governors give the EIM Governing Body an advisory role for entire initiative
- Status:
  - Revised straw proposal posted in June 2020
  - Second revised schedule to be posted late December (tentative)
  - Mid-2021 EIM Governing Body and ISO Board meetings

# Demand prioritization – summer 2021

- Scope:
  - Develop changes in response to Summer 2020 events to implement for Summer 2021
  - Initially planned scope was to evaluate load and export scheduling priorities
    - Evaluating inclusion of other items, including those suggested by stakeholders
- EIM Governing Body role TBD
- Status:
  - Initial workshop held November 20
  - Planning stakeholder meeting early January 2021
  - March EIM Governing Body and ISO Board Meetings

# Extended Day-Ahead Market

- **Scope: Extending day-ahead market to EIM entities**
  - Bundle 1: transmission provision, resource sufficiency evaluation, distribution of congestion rents
  - Bundle 2: accounting for GHG costs, ancillary services, full network model enhancements, administrative fee
  - Bundle 3: price formation, convergence bidding, external resource participation, and other items
- **EIM Governing Body Role:**
  - Management will request that the ISO Board of Governors give the EIM Governing Body joint approval authority for entire initiative
- **Status:**
  - Comments on straw proposal submitted November 12
  - Restarting initiative in 2021

# Scarcity pricing

- Scope:
  - Improve market's scarcity pricing provisions for efficient market pricing during tight supply conditions
- EIM Governing Body role TBD
- Status:
  - Start initiative during first half of 2021



# Dispatch enhancements

- Scope:
  - Various enhancements to improve renewable resource management
- EIM Governing Body role TBD
- Status:
  - Start initiative during first half of 2021

# Release Plan Update

Adrian Chiosea

Senior Manager, Strategic Initiative Management

# The ISO offers innovative training programs

Date	Training courses and workshops
January 14, 2021	Welcome to the ISO (Webinar)
March 2-3, 2021 (9am – 12pm)	Intro to ISO Markets ( <i>Virtual Workshop</i> )
March 9-10, 2021 (9am – 12pm)	Market Transactions ( <i>Virtual Workshop</i> )
March 16-17, 2021 (9am – 12pm)	ISO Settlements ( <i>Virtual Workshop</i> )
	Email us at <a href="mailto:CustomerReadiness@caiso.com">CustomerReadiness@caiso.com</a> for any training or readiness related questions



[CustomerReadiness@caiso.com](mailto:CustomerReadiness@caiso.com)

## Computer Based Training

There are more than 20 computer based training modules on the ISO website covering: Markets and Operations, Settlements and Metering, Reference Materials, Western Energy Imbalance Market and more!

## New Modules (recorded webinar and slides)

You can now find the following new initiatives training courses on the learning center web page:

- |  |  |
|--|--|
| • ADS Training Part 1 & 2              | • ESDER 3B                                   |
| • DOT Tariff Clarification             | • FERC 841                                   |
| • Excess Behind the Meter Production   | • Market Settlements Timeline Transformation |
| • Flexible Ramping Product Refinements | • Intertie Deviation Settlement              |

Visit our **Learning Center** web page to access our training calendar, register for courses and find other informational resources:  
<http://www.caiso.com/participate/Pages/LearningCenter/default.aspx>

# Release Plan Summary: 2020

## Independent 2020

### Activation - Dec

- **Dec 16:** Slow Demand Response

### Activation – Jan 2021

- **Jan 1, 2021**
  - Nodal Pricing Model – Advisory Service for PacifiCorp - Settlements Effective Date
  - Q4 Winter Release – Settlements
- **Jan 13, 2021**
  - Commitment Costs and Default Energy Bid Enhancements Phase 1
  - Aliso Canyon Phase 5
  - Energy Imbalance Market (EIM) Enhancements 2020

### Activation – Feb 1, 2021

- [Intertie Deviation Settlement](#)
- [EIM Enhancements Symmetrical Wheeling](#)

## Fall 2020

### Activation on Jan 1, 2021

- Excess Behind the Meter Production
- Market Settlement Timeline Transformation

### Activation TBD

- Dispatch Operating Target Tariff Clarifications
- ADS new features: DOTT, Unannounced AS Test, RTCD Commitment, Follow DOT Flag, Operating Instructions

# Release Plan Summary: 2021 - 2022

## Independent 2021

- CIRA Enhancements
- FERC Order 831 - Import Bidding and Market Parameters – (BOG Sept 2020)
- System Market Power Mitigation Phase 1 (BOG Nov 2020 and implementation prior to Q3, 2021)
- Variable operations and maintenance cost review (BOG Nov 2020)
- Real-Time Settlement Review (BOG Dec 2020)
- Pseudo Ties for Shared Resources (JOU Modeling) – (BOG Nov 2020)

## Spring 2021

- Energy Imbalance Market (EIM) 2021 - BANC Ph 2/WAPA
- Energy Imbalance Market (EIM) 2021 - Turlock Irrigation District
- Energy Imbalance Market (EIM) 2021 - Public Service Company of New Mexico
- Energy Imbalance Market (EIM) 2021 - North-Western Energy
- Energy Imbalance Market (EIM) 2021 - Los Angeles Dept. of Water and Power

## Fall 2021 – tentative, subject to impact assessment

- Resource Adequacy (RA) Enhancements (BOG Q1 2021)
- Energy Storage and Distributed Energy Resources Phase 4 (BOG Oct 2020)
- Flexible Ramping Product Refinements (BOG Oct 2020)
- Hybrid Resources Phase 2 (BOG Nov 2020)
- Western EIM Sub-Entity Scheduling Coordinator Role (BOG May 2021)

## Spring 2022

- Energy Imbalance Market (EIM) 2022 - Avista
- Energy Imbalance Market (EIM) 2022 – Bonneville Power Administration
- Energy Imbalance Market (EIM) 2022 – Tacoma Power
- Energy Imbalance Market (EIM) 2022 – Avangrid
- Energy Imbalance Market (EIM) 2022 – Xcel Energy - Colorado
- Energy Imbalance Market (EIM) 2022 - Tucson Electric Power

**Fall 2022** - Day Ahead Market Enhancements (BOG 2021)

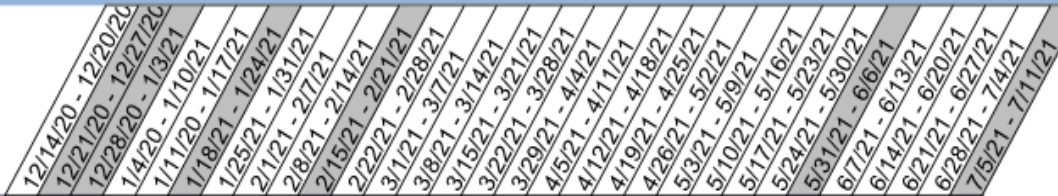
**Fall 2023** - Extend DA Market (BOG 2021)

# Release Schedule 2020 - 2021

Date of Data Refresh: 12/14/2020



Legend	
Market Simulation	CA ISO Holiday
External Testing	Deployment Week



MAP Stage Environment Window	
EIM Enhancements Symmetrical Wheeling - Market Sim	EIM Enhancements Symmetrical Wheeling - Market Sim (11/17-01/15)
EIM Enhancements 2020 (CMRI) - Market Sim	EIM Enhancements 2020 - Market Sim (12/15-12/29)
CCDEBE Phase 1 (New SIBR Rules) - Market Sim	CCDEBE Phase 1 - Market Sim (12/03-12/18)
Intertie Deviation Settlement - Market Sim	Intertie Deviation Settlement - Market Sim (12/01-01/15)
EIM - BANC Phase 2 / WAPA - Market Sim	EIM - BANC Phase 2 / WAPA - Market Sim (11/03-01/31)
EIM - Public Service Company of New Mexico - Market Sim	EIM - Public Service Company of New Mexico - Market Sim (11/03-01/31)
EIM - Los Angeles Dept. of Water & Power - Market Sim	EIM - Los Angeles Dept. of Water & Power - Market Sim (11/03-01/31)
EIM - Turlock Irrigation District - Market Sim	EIM - Turlock Irrigation District - Market Sim (11/03-01/31)
EIM - North-Western Energy - Market Sim	EIM - North-Western Energy - Market Sim (12/01-01/31)
Production Environment Window	
Slow Demand Response	Slow Demand Response (12/16)
Settlements Q4/Winter Release Effective Trade Date	Settlements Q4/Winter Release Effective Trade Date (01/01)
Excess Behind the Meter Production Activation Effective Trade Date	Excess Behind the Meter Production Activation Effective Trade Date
Market Settlement Timeline Transformation Activation Effective Trade Date	Market Settlement Timeline Transformation Activation Effective Trade Date (01/01)
EIM Enhancements 2020	EIM Enhancements 2020 (01/13)
CCDEBE Phase 1 Activation	CCDEBE Phase 1 Activation (01/13)
Aliso Canyon 5	Aliso Canyon 5 (1/13)
Nodal Pricing Model Settlements Effective Date	Nodal Pricing Model Settlements Effective Date (01/01)
Nodal Pricing Model Activation	Nodal Pricing Model Activation (01/15)
ADS - Decommission of Old ADS client, API v6	ADS - Decommission of Old ADS client, API v6 (02/01)
Intertie Deviation Settlement	Intertie Deviation Settlement (02/01)
EIM Enhancements Symmetrical Wheeling	EIM Enhancements Symmetrical Wheeling (02/01)
EIM - BANC Phase 2 / WAPA	EIM - BANC Phase 2 / WAPA (03/25)
EIM - Turlock Irrigation District	EIM - Turlock Irrigation District (03/25)
EIM - Public Service Company of New Mexico	EIM - Public Service Company of New Mexico (04/01)
EIM - Los Angeles Dept. of Water & Power	EIM - Los Angeles Dept. of Water & Power (04/01)
EIM - North-Western Energy	EIM - North-Western Energy (04/01)

<http://www.caiso.com/Documents/ReleaseSchedule.pdf>



ISO PUBLIC

# 2020 Independent

# 2020 – Slow Demand Response

## Overview

### Following up on Proxy demand resource - resource adequacy clarifications policy initiative

The Master File GRDT (Generator Resource Data Template) will be updated with a new field called “SLOW DR” (GRDT v14).

- Field will be populated with Y, N or NULL
  - YES means the PDR or Curtailment LSR resource has been designated “slow”
  - NO means the PDR or Curtailment LSR resource has NOT been designated “slow” and
  - NULL means the resource is neither a PDR nor a Curtailment LSR

A resource is designated “slow” when it meets one or both of the following criteria:

- Startup + ramp is greater than 20 minutes to reach PMAX, or
- A bid dispatchable option of Hourly or 15 minute has been elected by the resource (this is done through a GRDT request)

“SLOW DR” will be a read-only field for Market Participants, indicating the resource met one or both of these criteria.

The Market Instruments BPM Attachment B will be updated to add the definition of the slow demand response resource designation.

*For PDR or PDR\_LSR where  $BID\_DISP\_OPT \geq 15$  or startup time plus ramp time to Pmax  $\geq 20$*

Project Info	Details/Date
Application Software Changes	<ul style="list-style-type: none"><li>• Master File</li></ul>
BPM Changes	<ul style="list-style-type: none"><li>• Market Instruments Attachment B: Slow Demand Response resource definition</li></ul>
Tariff Changes	<ul style="list-style-type: none"><li>• No</li></ul>

See [Frequently Asked Questions – Slow Demand Response](#)

At [www.caiso.com/Stay Informed/Release Planning/Independent 2020/Slow Demand Response](http://www.caiso.com/Stay%20Informed/Release%20Planning/Independent%202020/Slow%20Demand%20Response)

Activation anticipated December 16, 2020. ISO will communicate in advance the actual activation date.



# 2020 – Nodal Pricing Model – Advisory Service for PacifiCorp

Project Info	Details/Date
Reference	<p>Reference – ISO market notice from Dec 18, 2019 – see: Stay Informed\Meetings and Events\Miscellaneous stakeholder meetings\Previous Meetings\2019 meetings\PacifiCorp nodal pricing model service informational call - Dec 18,2019 or <a href="http://www.caiso.com/Pages/documentsbygroup.aspx?GroupID=E8304346-54B9-4473-9E45-9C282AAD1340">http://www.caiso.com/Pages/documentsbygroup.aspx?GroupID=E8304346-54B9-4473-9E45-9C282AAD1340</a></p> <p>Reference - NPM FERC filing <a href="http://www.caiso.com/Documents/Dec20-2019_NodalPricingModelAgmt_CAISO-PacifiCorp_ER20-664.pdf#search=NPM">http://www.caiso.com/Documents/Dec20-2019_NodalPricingModelAgmt_CAISO-PacifiCorp_ER20-664.pdf#search=NPM</a></p>
Excerpt from the market notice:	<p>“The California ISO is hosting an informational stakeholder call on Dec. 18, 2019, to discuss an agreement that it intends to file with Federal Energy Regulatory Commission (FERC) that will provide PacifiCorp with an advisory nodal pricing model (NPM) service. Information related to this effort available on the ISO website at <a href="http://www.caiso.com/informed/Pages/MeetingsEvents/MiscellaneousStakeholderMeetings/Default.aspx">http://www.caiso.com/informed/Pages/MeetingsEvents/MiscellaneousStakeholderMeetings/Default.aspx</a>.</p> <p>This service will produce separate advisory day-ahead nodal pricing results for locations within PacifiCorp’s balancing authority areas, without a financial settlement or impact to the ISO’s day-ahead market. PacifiCorp will pay the ISO’s estimated cost to provide the service. PacifiCorp plans to use the NPM solution results as the basis for its power cost allocation among the states within which it provides retail electric service, consistent with the recently filed inter-jurisdictional cost allocation agreement.”</p>

Milestone Type	Milestone Name	Dates	Status
Tariff	FERC Approval	Feb 28, 2020	✓
Config Guides	Publish Config Guide	Aug 10, 2020	✓
External Training	External training	Sep 03, 2020	✓
Market Sim	Market Sim Window	Oct 06, 2020 - Nov 13, 2020	✓
Production Activation	Day Ahead Nodal Pricing Model	Jan 15, 2021	

# Settlements Q4/Winter Release

## Release Scope:

- Day Ahead Nodal (NPM project)
- Intertie Deviation Settlement (IDS)
- EIM Enhancement: Symmetrical Wheeling
- Production defects as noted in release component SUG email

## Release Milestones as follows:

- 1st draft technical documentation posted = **8/10**
- 1st draft configuration output file + initial release component summary posted = **8/25**
- 2nd draft configuration output file + 2nd draft tech docs + updated release component summary posted = **9/14**
- 3rd draft configuration output file (pre market sim) posted = **10/8**
- Unplanned draft configuration output file posted - **10/29**
  - IDS calc granularity change from MW to MWh
- Deployed to MAP-Stage = **10/6**
- Pre-prod configuration output file + release artifacts to post – **12/10**
- Production deployment - **12/17**

## Winter 2020 settlements release draft settlements technical documentation:

<http://www.caiso.com/Pages/documentsbygroup.aspx?GroupID=EF90CE68-D8D0-43F7-8052-04FBE1D0825B>

# 2020 – Commitment Cost and Default Energy Bid Enhancements Ph1

Project Info	Details/Date
Application Software Changes	<p><b><u>Scope:</u></b>            Enhances the ability to submit market-based commitment cost bids in order to reflect unique costs and volatility:</p> <ul style="list-style-type: none"> <li>• Ex-ante cost adjustment requests</li> <li>• Reference Level Adjustments to default commitment cost bids (start-up and minimum load costs) and default energy bids</li> <li>• Make Day Ahead Market process permanent</li> <li>• Make D+2 Process permanent</li> <li>• Use of indices clarification, and Monday Only in DAM and RTM, per LMPME</li> <li>• Conditionally Available Resources (CAR)</li> </ul> <p><b><u>Impacted Systems:</u></b></p> <ul style="list-style-type: none"> <li>• SIBR: Allow the submittal of Ex Ante cost adjustments.</li> <li>• CMRI: Provide additional source information for default bids.</li> </ul> <p>Submit requests through CIDI for manual consultation and ex-post default bid adjustments.</p>
BPM Changes	<ul style="list-style-type: none"> <li>• Market Instruments</li> <li>• Market Operations</li> </ul>
Business Process Changes	<ul style="list-style-type: none"> <li>• Maintain Major Maintenance Adders (MMG LIII)</li> <li>• Maintain Negotiated Default Energy Bids (MMG LIII)</li> <li>• Maintain Negotiated O_Ms (MMG LIII)</li> <li>• Manage Day Ahead Market (MMG LII)</li> <li>• Manage Market Billing Settlements (MOS LII)</li> <li>• Manage Real Time Hourly Market (RTPD) (MMG LII)</li> <li>• Manage Real Time Operations – Maintain Balance Area (MMG LII)</li> </ul>

# 2020 – Commitment Cost and Default Energy Bid Enhancements Ph1

Milestone Type	Milestone Name	Dates	Status
Draft Policy	Publish Draft Business Rules externally	Jan 31, 2018	✓
Board Approval	Obtain Board of Governors Approval	Mar 22, 2018	✓
External BRS	Publish External BRS v1.5: implementation notes & clarifications (BRQ046, BRQ035/335), Generic Hub GPI update	Sep 03, 2019	✓
	Revised BRS v1.6: added clarifications and notes	Sept 14, 2020	✓
Config Guides	Config Guide	N/A	
Tech Spec	Publish Technical Specifications	May 17, 2019	✓
	Publish Technical Specification updates for CARs and Electric Pricing Hub weighting	Jun 28, 2019	✓
Tariff	Collect stakeholder comments	Feb 21, 2020	✓
	Draft tariff conference call with stakeholders	Feb 27, 2020	✓
	Stakeholder call to review CCDEBE draft tariff re-filing	May 20, 2020	✓
	Publish updated draft tariff (reflecting 20-May feedback)	Jun 05, 2020	✓
	Refile CCDEBE tariff	Jul 09, 2020	✓
BPMs	Publish draft Market Instruments: Attachment O on CCDEBE Stakeholder Processes page	Oct 04, 2019	✓
	PRR 1203 published: CCDEBE updates to Market Instruments BPM, incl. Attachment O	Oct 18, 2019	✓
External Training	Deliver External Training	Oct 08, 2019	✓
	Finalize external training material	Oct 04, 2019	✓
Market Sim	Market Sim Window	Oct 14, 2019 - Dec 03, 2019	✓
	Market Sim Window – New SIBR rules	Dec 3, 2020 – Dec 18, 2020	
Production Activation	CCDEBE Phase 1	Jan 13, 2021	

# 2020 – Aliso Canyon Ph5

Project Info	Details/Date
Application Software Changes	<p><b>Scope:</b> This project will consider enhancements to the existing Dynamic Competitive Path Assessment (DCPA) and Gas Nomogram capabilities currently in production.</p> <p><b>IFM/RTN:</b> Formulate and solve the linear programming problem for maximizing the Residual Supplier Index (RSI) for each binding constraint that DCPA is applied.</p> <p><b>SMDM:</b> Enhance the User Interface to include “All Markets” when the user is defining “Market” within the Curtailment to Process section.</p> <p><b>SMDM:</b> Creation of error message if the RT curtail type “incremental” or “absolute” are used and total curtailment is left null.</p>
BPM Changes	<ul style="list-style-type: none"> <li>Managing Full Network Model</li> <li>Market Operations</li> </ul>
Tariff Changes	<ul style="list-style-type: none"> <li>N/A</li> </ul>

Milestone Type	Milestone Name	Dates	Status
Board Approval	Obtain Board of Governors Approval - NO BOG Needed	N/A	
External BRS	Post External BRS	May 05, 2020	✓
Config Guides	Post Draft Config Guides	N/A	
Tech Spec	Publish Technical Specifications	N/A	
Tariff	File Tariff	N/A	
BPMs	Post Draft BPM changes	Jul 17, 2020	✓
External Training	Deliver External Training	N/A	
Market Sim	Market Sim Window	N/A	
Production Activation	Aliso Canyon Phase 5	Jan 13, 2021	

# 2020 - EIM Enhancements 2020

Milestone Type	Milestone Name	Dates	Status
Board Approval	Obtain Board of Governors Approval	N/A	
External BRS	Milestone: Post External BRS	Mar 24, 2020	✓
Tech Spec	Create ISO Interface Spec (Tech spec) CMRI tech spec		✓
	1. MW Infeasibility Report	May 29, 2020	✓
	2. Load Conforming Report	May 29, 2020	✓
	3. Available Balance Capacity (ABC) Up and Down Dispatch Report by Resource	Jul 1, 2020	✓
	4. Advisory Load Conforming Report	Aug 5, 2020	✓
Tariff	File Tariff	N/A	
BPMs	Draft BPM changes - Market Instruments – PRR 1281	Aug 31, 2020	✓
External Training	Deliver External Training – coordinate via customer readiness EIM ops mtg	Aug 31, 2020 – Oct 22, 2020	✓
Market Sim	Market Sim Window - unstructured CMRI		
	1. Load Conforming Report		
	2. Available Balance Capacity (ABC) Up and Down Dispatch Report by Resource		
	3. Advisory Load Conforming Report	Dec 15, 2020 – Dec 29, 2020	
	4. MW Infeasibility Report	TBD	
Production Activation	EIM Enhancements 2020 - CMRI reports	Jan 13, 2021	

# 2020 – Intertie Deviation Settlement

Project Info	Details/Date
Application Software Changes	<p><b>Scope:</b> Implement a new Under/Over Delivery Charge for intertie deviations from Market Schedule and After-The-Fact (ATF) E-Tag, to replace Decline charge</p> <p><b>Impacted Systems:</b> <b>Settlements</b></p> <ul style="list-style-type: none"> <li>Calculate FMM binding intertie award, exclude Curtailment, calculate under/over delivery quantity as deviation of schedule and ATF E-Tag, Charge under/over delivery Charge at 50% of RTD LMP.</li> <li>Remove the decline charge calculation and Decline Threshold</li> <li>Allocate Over/Under delivery charge to measured demand</li> </ul> <p><b>ADS</b> - display the HASP schedule, the scheduling coordinator accepted value, and the difference between the two</p> <p><b>RTM</b> - determine the 15-minute binding award for hourly intertie resources based on the E-Tag at T-40.</p>

BPM Changes

Settlements and Billing

Tariff Change

Section 11.32

Milestone Type	Milestone Name	Dates	Status
Board Approval	Obtain Board of Governors Approval	Feb 07, 2019	✓
External BRS	Post External BRS	Mar 02, 2020	✓
Config Guides	Post Revised Config Guides	Aug 10, 2020	✓
Tech Spec	Publish Technical Specifications	N/A	
Tariff	Tariff Activities	May 22, 2020	✓
BPMs	Settlements and Billing Market Operations	Aug 10, 2020	✓
External Training	Deliver External Training	Sep 29, 2020	✓
Market Sim	Market Sim Window	Dec 1, 2020 – Jan 15, 2021	
Production Activation	Intertie Deviation Settlement	Feb 1, 2021	

# 2020 – EIM Enhancements – Symmetrical Wheeling

Project Info	Details/Date
Application Software Changes	<p><b>Scope:</b> This project will allow EIM to settle Base ETSR attributes to support Base ETSR Imbalance Energy settlements between two EIM BAAs at a mutually agreed price. The enhancement is for base ETSR price setting to result in symmetrical settlement of wheeling through EIM BAAs enhancement.</p> <p><b>RTM:</b> Update LMP price setting for Base ETSRs to be associated with From BAA of the Base ETSRs and retire split ratio price setting</p> <p><b>MasterFile:</b> Retire the definition of the Base ETSR split ratio and From/To financial location.</p> <p><b>Settlements:</b> Update formulation of Base ETSR export/import in Real Time Congestion Offset EIM and Real Time Marginal Losses</p>
BPM Changes	<ul style="list-style-type: none"> <li>• Energy Imbalance Market (EIM)</li> </ul>
Tariff Changes	<ul style="list-style-type: none"> <li>• N/A</li> </ul>

Milestone Type	Milestone Name	Dates	Status
External BRS	Post External BRS	Oct 2, 2020	✓
Config Guides	Post Draft Config Guides	Sep 29, 2020	✓
Tariff	File Tariff	N/A	
BPMs	Post Draft BPM changes	N/A	
External Training	Deliver External Training (EIM Settlements webinar)	Dec 15, 2020	
Market Sim	Market Sim Window	Nov 17, 2020 – Jan 15, 2021	
Production Activation	EIM Enhancements Symmetrical Wheeling	Feb 1, 2021	



# OMS Roadmap for 2020-2021

Release	Major Changes	Participant	MAPStage	Production
October	Remove defaulting discovery date - For retro-active outages submit discovery date. - Handle no discovery date if not previously submitted.	All	✓ 11/05/2020	1/11/2021
	Aggregate Resource Outage retrieve results changes - Handle receiving only parent and impacted children.	All		
	Transmission Retrieve Changes - If moving to new version (= 10012020), consume new XSD and handle receipt of multiple change requests.	All		
	Retrieve Resource/Transmission outage change request - Limiting to 50 - Disable querying with participant ID & Date Range. - Query by Outage ID, Change request ID and Equipment ID/Resource ID	All		

# OMS Roadmap for 2020-2021

Release	Major Changes	Participant	MAPStage	Production
November	<p>TOP Calculations for shared equipment</p> <ul style="list-style-type: none"> <li>- Based on participant ID TOP attribute will be comma separated TOPs.</li> </ul>	All	12/18/2020	02/15/2021
	<p>Communication and RAS changes</p> <ul style="list-style-type: none"> <li>- Handle Providing these flags for Nature of Work for communication and Relay work.</li> <li>- RAS flags - UI change (RAS/SPS Out of Service, RAS/SPS Reduced Redundancy, Protection Zone, EMS/ICCP Outage) will be changed from Y/N to Y/N/NA(Undefined or Null)</li> </ul>	All		
December	<p>Significant Outage flag determination.</p> <ul style="list-style-type: none"> <li>- Flag will be displayed in the version history of the outage</li> <li>- Please see May 2020 - CPG slide deck for more details.</li> </ul>	All	02/19/2021	04/19/2021

# 2020 - System Interface Changes

OMS					
Project	Service	Summary	Tech Spec	MAP Stage	Production
N/A	RetrieveResourceOutageChangeRequest_OMSv2_AP & DocAttach RetrieveResourceOutageChangeRequest_OMSv2_DocAttach_AP RetrieveResourceOutageChangeRequest_OMSv3_AP RetrieveResourceOutageChangeRequest_OMSv3_DocAttach_AP RetrieveTransmissionOutageChangeRequest_OMSv2_AP RetrieveTransmissionOutageChangeRequest_OMSv2_DocAttach_AP RetrieveTransmissionOutageChangeRequest_OMSv3_AP RetrieveTransmissionOutageChangeRequest_OMSv3_DocAttach_AP	<ul style="list-style-type: none"> <li>Performance Improvements:                             <ul style="list-style-type: none"> <li>Retrieve up to 50 outages by querying on outage ID)</li> <li>Retrieve based on Change Request ID</li> <li>Retrieve based on Equipment ID</li> <li>Removed capability of querying by participant ID</li> <li>Recommended use to sync data</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>✓ 8/11/20, v2.1</li> </ul>	<ul style="list-style-type: none"> <li>✓ 11/5/2020</li> </ul>	1/11/2021
N/A		<ul style="list-style-type: none"> <li>WebOMS system will not default the discovery date</li> </ul>	<ul style="list-style-type: none"> <li>✓ 8/11/20, v2.1</li> </ul>	<ul style="list-style-type: none"> <li>✓ 11/5/2020</li> </ul>	1/11/2021
N/A	SubmitResourceOutage_OMSv2_AP SubmitResourceOutage_OMSv2_DocAttach_AP SubmitResourceOutage_OMSv3_AP SubmitResourceOutage_OMSv3_DocAttach_AP	<ul style="list-style-type: none"> <li>Changes to aggregate resource outage submission for performance improvement                             <ul style="list-style-type: none"> <li>Submit de-rate for parent resource (required) and only the impacted child resources</li> <li>Retrieve results will not be include (for both v2 and v3 services) child resources that have no curtailment</li> <li>Parent resource availability points need not match with child resources' but will remain within the overall outage start and end date span</li> <li>Child resource outages can be added to existing outage if the outage has not commenced</li> <li>UI display and retrieve results for historical outages will be modified to support this model</li> <li>Changes are being done to enhance webOMS performance</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>✓ 8/11/20, v2.1</li> </ul>	<ul style="list-style-type: none"> <li>✓ 11/5/2020</li> </ul>	1/11/2021

<https://developer.caiso.com>

# 2020 - System Interface Changes

OMS					
Project	Service	Summary	Tech Spec	MAP Stage	Production
N/A	RetrieveTransmissionOutage_OMSv3_AP RetrieveTransmissionOutage_OMSv3_DocAttach_AP	<ul style="list-style-type: none"> <li>If Version Tag =v20201001, return all outage requests</li> <li>If Version Tag &lt;&gt;v20201001, return a single request</li> </ul>	✓ 8/11/20, v2.1	12/18/2020	02/15/2021
N/A		<ul style="list-style-type: none"> <li>Auto-acceptance of non-significant changes</li> </ul>	✓ 8/11/20, v2.1	12/18/2020	02/15/2021
N/A		<ul style="list-style-type: none"> <li>Handling shared equipment                             <ul style="list-style-type: none"> <li>Lists all valid TOPs</li> <li>Allow retrieval by all TOPs</li> </ul> </li> </ul>	✓ 8/11/20, v2.1	12/18/2020	02/15/2021
N/A	RetrieveResourceOutage_OMSv3_AP RetrieveResourceOutage_OMSv3_DocAttach_AP RetrieveTransmissionOutage_OMSv3_AP RetrieveTransmissionOutage_OMSv3_DocAttach_AP SubmitResourceOutage_OMSv3_AP SubmitResourceOutage_OMSv3_DocAttach_AP SubmitTransmissionOutage_OMSv3_AP SubmitTransmissionOutage_OMSv3_DocAttach_AP	<ul style="list-style-type: none"> <li>Remedial Action Scheme (RAS) Changes                             <ul style="list-style-type: none"> <li>Modeling for 4 RAS Flags will be modified: RAS/SPS Out of Service, RAS/SPS Reduced Redundancy, Protection Zone, EMS/ICCP Outage</li> <li>API validation changes are to require the submission of these flags for Nature of Work 'COMMUNICATION' or 'RELAY WORK'.</li> <li>API submission will continue to take in a 'Y' or 'N' for these flags.</li> <li>Changes will be made to validate to only v3 services (submit and retrieves)</li> <li>No changes to v2 services</li> <li>No Changes to historical outages</li> </ul> </li> </ul>	✓ 8/11/20, v2.1	12/18/2020	02/15/2021

<https://developer.caiso.com>

# 2020 - System Interface Changes - CCDEBE1 - Pending Activation

SIBR					
Project	Change Type	API Service Name & Major Version, Artifacts	MAP Stage	Production	Technical Specifications
CCDEBE1	Modify	RetrieveCleanBidSet_SIBRv5_AP RetrieveCleanBidSet_SIBRv5_DocAttach_AP	✓ 10/16/19	✓ Deploy 3/26/20 Activation 1/13/2021	13.2
CCDEBE1	Modify	RetrieveCurrentBidResults_SIBRv5_AP RetrieveCurrentBidResults_SIBRv5_DocAttach_AP	✓ 10/16/19	✓ Deploy 3/26/20 Activation 1/13/2021	13.2
CCDEBE1	Modify	SubmitRawBidSet_SIBRv5_AP SubmitRawBidSet_SIBRv5_DocAttach_AP	✓ 10/16/19	✓ Deploy 3/26/20 Activation 1/13/2021	13.2

CMRI						
Project	Change Type	UI	API Service Name & Major Version, Artifacts	MAP Stage	Production	Technical Specifications
LMPME CCDEBE1	Modify	Tab: Default Bids Existing Report: Default Energy Bid Curves	RetrieveDefaultBidCurves_CMRIv2_AP RetrieveDefaultBidCurves_CMRIv2_DocAttach_AP	LMPME ✓ 9/12/19  CCDEBE1 ✓ 11/6/19	LMPME ✓ 11/13/19  CCDEBE1 ✓ Deploy 3/26/20 Activation 1/13/2021	3.9.4  Release Notes 1.2
CCDEBE1	Modify	Tab: Default Bids Existing Report: Default Commitment Costs	RetrieveExternalDefaultCommitmentCost_CMRIv1_AP RetrieveExternalDefaultCommitmentCost_CMRIv1_DocAttach_AP	✓ 11/11/19	✓ Deploy 3/26/20 Activation 1/13/2021	3.9.4  Release Notes 1.2

<https://developer.caiso.com>

# 2020 - System Interface Changes

CMRI					
Project	Change Type	Summary	Technical Specifications	MAP Stage	Production
N/A	Decom	Decommission of deprecated versions	✓ 8/5/20, v3.9.7	12/15/20	1/13/21
EIM2020	New	RetrieveEIMInfeasibility_CMRIv1_AP RetrieveEIMInfeasibility_CMRIv1_DocAttach_AP	✓ 8/5/20, v3.9.7	TBD	1/13/21
EIM2020	New	Available Balance Capacity	✓ 8/5/20, v3.9.7	12/15/20	1/13/21
EIM2020	New	RetrieveLoadConforming_CMRIv1_AP RetrieveLoadConforming_CMRIv1_DocAttach_AP	✓ 8/5/20, v3.9.7	12/15/20	1/13/21
EIM2020	New	Advisory Load Conforming	✓ 8/5/20, v3.9.7	12/15/20	1/13/21

BSAP					
Project	Change Type	Summary	Technical Specifications	MAP Stage	Production
N/A	Modify - XSD minor version only	RetrieveBalancingTestResults_BSAPv2 RetrieveBalancingTestResults_BSAPv2_DocAttach Add minor version 20201001 (currently 20191001)	✓ 10/23/20, v1.7.5	November 2020	TBD

<https://developer.caiso.com>

# 2020 Fall Release

# Fall 2020 Release – Overview

	BOG	BRS	Config Guide	Tech Spec	Mkt Sim Scenarios	Draft Tariff**	Draft BPMs	Training	Market Sim	Production Activation
<b>Fall 2020 Release</b>		<b>04/01/20</b>	<b>05/29/20</b>	<b>05/29/20</b>	<b>05/29/20</b>	<b>06/26/20</b>	<b>07/20/20</b>	<b>07/20/20</b>	<b>Jul 27, 2020 - Sep 4, 2020</b>	<b>10/01/20</b>
<b>ADS UI Replacement</b>	N/A	08/06/18	N/A	05/22/20	05/29/20	N/A	07/23/20	06/01/20 06/11/20 07/16/20	Jul 27, 2020 - Sep 04, 2020	10/20/20- 10/21/20
<b>Add'l features activation</b>										TBD
<b>Dispatch Operating Target Tariff Clarification</b>	07/26/18	12/26/18 04/30/20	N/A	05/22/20	05/29/20	09/04/18	07/23/20	07/16/20	Jul 27, 2020 - Sep 04, 2020	TBD
<b>Excess Behind the Meter Production</b>	11/17/18	02/27/20 04/16/20	05/28/20	05/29/20	06/12/20	11/04/19	07/20/20	07/21/20	Jul 27, 2020 - Sep 18, 2020	01/01/21 (TD)
<b>Market Settlement Timeline Transformation</b>	11/14/19	02/06/20	6/26/20 - Documentation Only	05/29/20	06/12/20	5/19/20	07/20/20	07/20/20	Jul 27, 2020 - Sep 18, 2020	01/01/21 (TD)



# Fall 2020 Release - System Interface Changes - Pending Activation

OASIS					
Project	Change Type	Summary	Technical Specifications	MAP Stage	Production
EBTMP	New	ENE_EBTMP_PERF_DATA	✓ 6/22/20, v5.1.14	7/28/20	Activation 1/1/21

MRI-S					
Project	Change Type	Summary	Technical Specifications	MAP Stage	Production
EBTMP	Modify	For: - MRIS Meter: Submit Meter & - MRIS Meter: Retrieve Meter  additionally include EBtMP measurement type values (as negative load)  both Gross Load and EBtMP meter data would associate with same Load Resource ID	✓ 5/28/20, v2.5	7/28/20	Activation 1/1/21

<https://developer.caiso.com>

# Fall 2020 – ADS Replacement

Project Info	Details/Date
Application Software Changes	<ul style="list-style-type: none"> <li>• Transition to web-based user interface to eliminate the need to install thick client</li> <li>• Transition ADS provisioning to the Access and Identity Management (AIM) application including Resource Level Access Controls (RACL) access</li> <li>• The query tool will not change in requesting historical data</li> <li>• Various user interface enhancements adding content per Operation's request</li> <li>• ADS B2B services changes</li> </ul>
BPM Changes	<ul style="list-style-type: none"> <li>• Market Instruments</li> <li>• Market Operations</li> </ul>

Milestone Type	Milestone Name	Dates	Status
Board Approval	Obtain Board of Governors Approval	N/A	
External BRS	Post External BRS	Aug 06, 2018	✓
ADS Update	ADS Update Meeting	Aug 15, 2018	✓
ADS Demonstration	ADS WebEx Demonstration	Apr 16, 2020	✓
CPG Meeting	ADS CPG Meeting	Jul 09, 2020	✓
Config Guides	Design review - BPM and Tariff SMEs	N/A	
Tech Spec	Publish Technical Specifications	May 22, 2020	✓
Tariff	Tariff Activities	N/A	
BPMs	Post Draft BPM changes	Jul 27, 2020	✓
External Training	Provisioning ADS ACL Training	Jun 01, 2020	✓
	External Training Part 1 (Application Preview preparation)	Jun 11, 2020	✓
	Deliver External Training Part 2	Jul 16, 2020	✓
Market Sim	Market Sim Window	Jul 27, 2020 - Sep 04, 2020	✓
Parallel Operations	ADS Parallel Operations	Sep 1, 2020 – Oct 16, 2020	✓
Production Activation	ADS Replacement	Oct 20, 2020 - Oct 21, 2020	✓
Add'l features	DOTT, AS Test, RTCD Commitment	TBD	
Decommission	Old ADS Decommission	Feb 01, 2021	

# ADS Phase 3: Activation of New Features

- ✓ 10/20: ADS Phase 1: Network
- ✓ 10/20: ADS Phase 2: New ADS UI, API v8 available
- ✓ 10/30: Close Stage, End Parallel Operations
  - MAP-Stage remains available with active features from now on
- **TBD: Activation of New Features**
  - Only available on New ADS UI, API v8
    - DOTT
    - AS Test
    - RTCD Commitment
- 2/1/21: ADS Phase 4: Decommission of Old ADS client, API v6

# ADS Phase 3: Activation of New Features

## ➤ **TBD: Activation of New Features**

- Only available on New ADS UI, API v8
- ISO invites customers to leverage ISO Assisted Customer Cutover lines
  - To transition to new ADS UI, API v8
  - To report transition plans, progress, issues
  - By phone: call 1-866-528-2256, access code: 1465216
  - Dates: 11/4, 11/11, 11/18, skip 11/26 due to holiday, 12/2, 12/9 and 12/16
  - Time: 1300-1400 PT
- Recommendation
  - Run ADS Client and new ADS UI in parallel for validation
  - Cutover to API v8 now, as it provides same functionality as v7

# Fall 2020 – Dispatch Operating Target Tariff Clarification

Project Info	Details/Date
Application Software Changes	<p><b>Scope:</b> Allow Energy Intermittent Resources (EIRs) to automate their response to operational instructions that require the resource not to exceed their Dispatch Operating Target.</p> <p><b>Impacted Systems:</b>  <b>RTM:</b> Operator can select EIR resources, system to send Operating instruction Flag to ADS  <b>ADS:</b> Receive Operating instruction flag for EIRs. Broadcast message to EIRs operator.</p>
BPM Changes	Market Instruments Market Operations
Tariff Change	Changes tariff language from “Operating Order” to “Operating Instruction” in multiple sections.

Milestone Type	Milestone Name	Dates	Status
Board Approval	Obtain Board of Governors Approval	Jul 26, 2018	✓
External BRS	Posted External BRS	Dec 26, 2018	✓
	Posted revised External BRS	Apr 30, 2020	✓
Config Guides	Design review - BPM and Tariff SMEs	N/A	
Tech Spec	Publish Technical Specifications	May 22, 2020	✓
Tariff	Draft Tariff	Sep 04, 2018	✓
	File Tariff	Oct 29, 2018	✓
BPMs	Post Draft BPM changes	Jul 27, 2020	✓
External Training	Deliver External Training	Jul 16, 2020	✓
Market Sim	Market Sim Window	Jul 27, 2020 - Sep 04, 2020	✓
Production Activation	Dispatch Operating Target Tariff Clarification	TBD	

# 2021 Independent

# 2021 - CIRA Enhancements

	CIRA Enhancements	MAP-Stage	Production
1	LSE IDs from Master File	Jan 2021	
2	CIRA Flex RA-Upload Screen & Flex Capacity Survey layer changes		
3	CIRA Acquired Resource (Phase 1)		
4	CIRA – Add SC Contact Info		
5	Publish NQC data to OASIS - this report will move from public website to a new report in OASIS (upcoming OASIS tech spec)		
6	Publish CPM to OASIS - this report will move from public website to a new report in OASIS (upcoming OASIS tech spec)		

- There will be customer training scheduled for these enhancements
- The enhancements will be available in MAP-Stage prior to Production
- For item 1, CIRA will cease to use the LSEID list in CIRA and will use the list in Masterfile and **this will require provisioning changes to prevent loss of access to CIRA**
  - ISO will contact impacted organization’s UAAs to reprovision to the new IDs to retain access to CIRA
  - ISO will validate that the organizations have been reprovisioned prior to go-live to prevent loss of access to CIRA
  - Please work with your UAA to Provision your LSEID for following roles:
    - EXTERNAL RA READ-ONLY
    - EXTERNAL RA READ-WRITE
  - The reprovisioning of the LSEID access to these roles are needed to retain access to see the data in several CIRA reports such as
    - RA Plan Upload/download
    - Generic Obligation Report
    - Flex Obligation Report

# 2021 Spring Release



# Spring 2021 – EIM integrations for BANC Phase 2, TID, PNM, LADWP, and NWE

Project Info	Details/Date
Application Software Changes	Implementation of BANC Phase 2, TID, PNM, LADWP, and NWE as EIM Entities
BPM Changes	EIM BPM will be updated if needed to reflect new modeling scenarios identified during implementation and feedback from BANC Phase 2, TID, PNM, LADWP, and NWE.
Market Simulation	December 2020 – January 2021
Parallel Operations	February 2021 – March 2021

Milestone Type	Milestone Name	Dates					Status
		BANC Phase 2	TID	PNM	LADWP	NWE	
Market Sim	Market Sim Window	11/3/20 - 1/31/21	11/3/20 - 1/31/21	11/3/20 - 1/31/21	11/3/20 - 1/31/21	12/1/20 - 1/31/21	
Parallel Operations	Parallel Operations	1/27/21 – 3/25/21	1/27/21 – 3/25/21	1/30/20 – 4/1/21	1/30/20 – 4/1/21	1/30/20 – 4/1/21	
Tariff	File Readiness Certification	Mar 2021					
Production	Activation	3/25/21	3/25/21	4/1/21	4/1/21	4/1/21	

# Stay Informed

# Ways to participate in releases

- Visit the Release Planning page
  - <http://www.caiso.com/informed/Pages/ReleasePlanning/Default.aspx>
- Attend meetings
  - Release Users Group (RUG) bi-weekly meetings
    - Initiative status updates
    - System change updates on independent releases
  - Market Simulation calls
    - Visit the ISO calendar at [www.caiso.com](http://www.caiso.com) for meeting dates and times and add events to your calendar
    - Typically held on Mondays and Thursdays
  - Market Performance and Planning Forum
    - Bi-monthly review of market performance issues
    - High level discussion of release planning, implementation and new market enhancements

# What to look for on the calendar...

## Calendar of Meetings, Training and Events

Month: February Year: 2018 Calendar View List View Print View

February 2018						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
	5 <b>WebCONF: Market Simulation</b> 2:00pm - 3:00pm	6 <b>Training: Get to Know the ISO - Day 1</b> 9:00am - 4:00pm <b>WebCONF: Imbalance Conformance Enhancements</b> 10:00am - 12:00pm <b>WebCONF: Technical User Group</b> 10:00am - 11:00am	7 <b>Deadline: Comments - Interconnection Process Enhancements 2018 - Issue Paper and Meeting Discussion</b> <b>Training: Get to Know the ISO - Day 2</b> 9:00am - 4:00pm <b>Meeting: Flexible Resource Adequacy Criteria Must Offer Obligation Phase 2 - Revised Draft Flexible Capacity Framework</b> 10:00am - 4:00pm <b>WebCONF: Market Settlement User Group</b> 10:00am - 11:00am	8 <b>Meeting: Audit Committee Teleconference (Executive)</b> 8:30am - 9:30am <b>Training: Settlements 101</b> 9:00am - 4:00pm <b>Meeting: 2017-2018 Transmission Planning Process</b> 10:00am - 4:00pm <b>WebCONF: Market Simulation</b> 2:00pm - 3:00pm	9 <b>Training: Settlements 201</b> 9:00am - 4:00pm	10
11 <b>WebCONF: Participating Transmission Owner Per Unit Cost Guides</b> 10:30am - 12:00pm <b>WebCONF: Market Simulation</b> 2:00pm - 3:00pm	12 <b>Meeting: Congestion Revenue Rights Auction Efficiency</b> 10:00am - 4:00pm <b>WebCONF: Release User Group</b> 10:00am - 11:00am <b>Call: Energy Imbalance Market Governing Body Teleconference (Executive)</b> 11:30am - 12:30pm	13 <b>Deadline: Submissions - April 2018 Monthly Resource Adequacy and Supply Plans</b> <b>Call: Congestion Revenue Rights</b> 11:00am - 11:30am <b>WebCONF: Outage Management System Customer Partnership Group</b> 2:00pm - 3:00pm	14 <b>Deadline: Comments - Review Transmission Access Charge Structure Straw Proposal and Meeting Discussion</b> <b>Call: Board of Governors Teleconference (General)</b> 8:15am - 9:00am <b>Call: Board of Governors Teleconference (Executive)</b> 9:00am - 10:00am <b>Call: Market Update</b> 10:15am - 11:00am <b>WebCONF: Market Simulation</b>	15	16	17

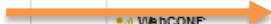
Market Sim



Market Sim



Release Users Group (RUG)



## Upcoming meetings

The MPPF schedule for 2021 will be communicated in a future market notice.

MPPF related materials are available on the ISO website [here](#).

### **Agenda topic suggestions:**

- Submit through CIDI
  - Select the *Market Performance and Planning Forum* category
- Send email to [isostakeholderaffairs@caiso.com](mailto:isostakeholderaffairs@caiso.com).