



California ISO

Exports and Loads Scheduling Priorities Markets

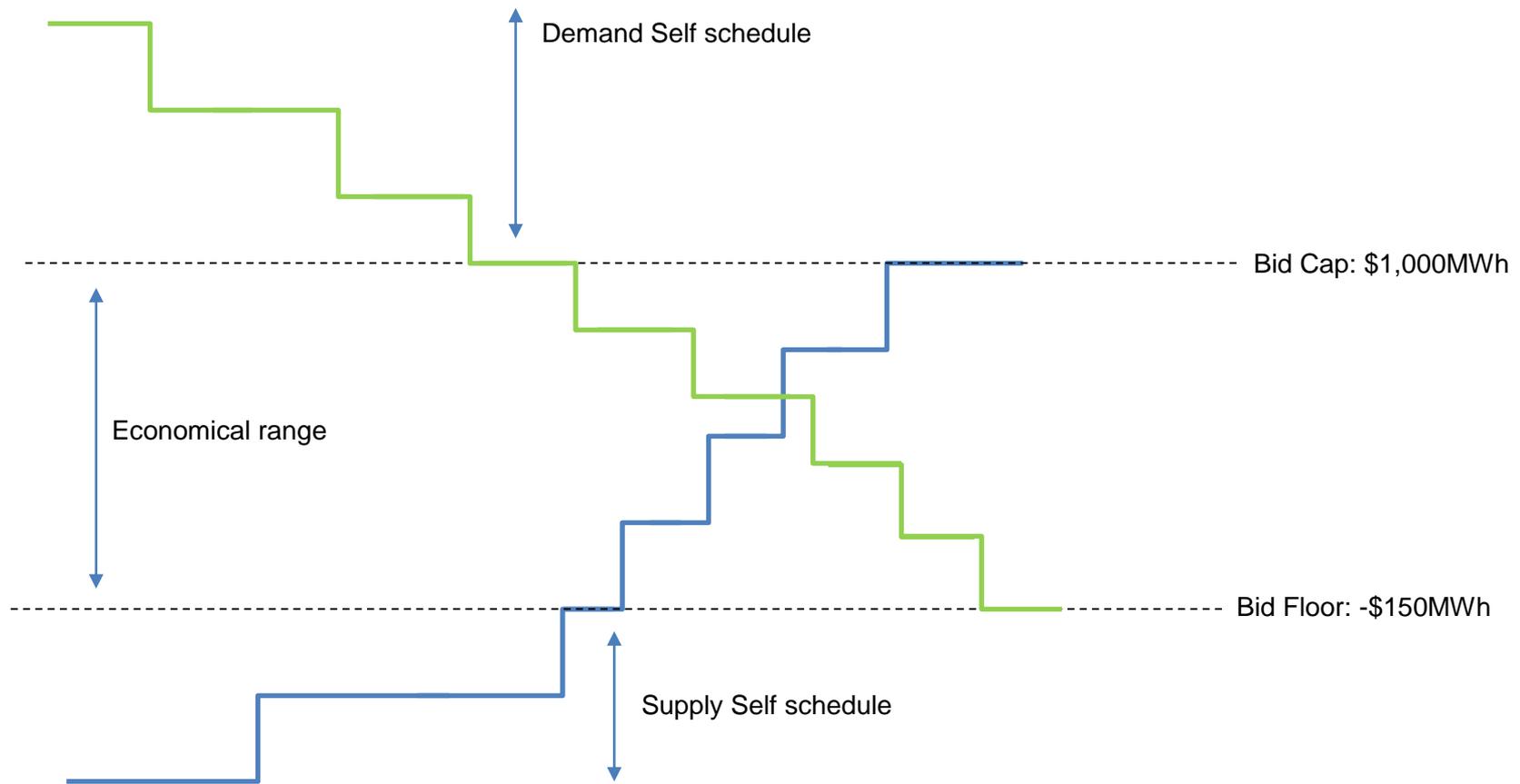
Guillermo Bautista Alderete
Director, Market Analysis and Forecasting

January 12, 2021

Background

- Based on the market performance observed in August 2020, CAISO implemented a business practice change
- This emergency change took effect on September 5, 2020 and consisted of two parts:
 - Change 1: Use schedules from scheduling run in the Day-ahead Residual Unit Commitment (RUC) process instead of schedules from Pricing run
 - Change 2: Use RUC schedules for exports as the reference for self schedules into real-time markets

Penalty prices are utilized in the market to set up priorities for supply and demand resources



Business practice change

- The day-ahead market consist of the financial (IFM) market, and the residual (RUC) market. Each one produces schedules (awards).
- IFM schedules are used to settle energy; RUC schedules above IFM schedules settle for capacity procured (RUC awards).
- Participants with a day-ahead position can use self schedules to secure their day-ahead position in the real-time market.
- RUC schedule determines what part of the day-ahead schedule is feasible
- The BPM change clarifies that going forward the ISO will provide the day-ahead priority to Exports based on the RUC supported amounts in the real-time market

Business practice change

Practice before the BPM change

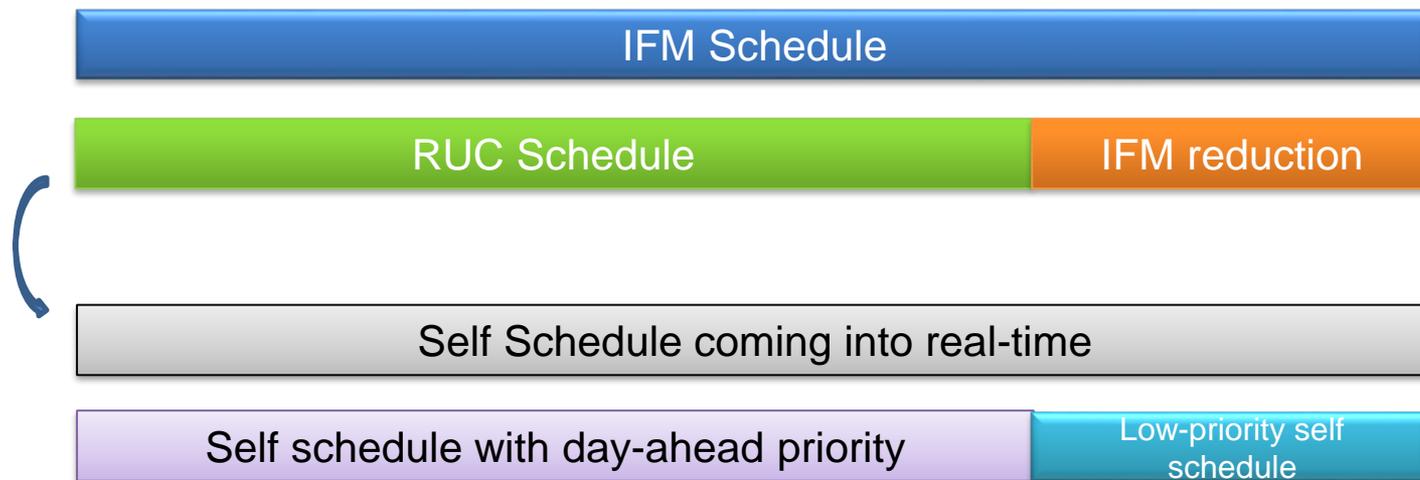
- RUC schedules based on pricing run results and RUC prices based on pricing run (PIME functionality On)
- In real-time Export self schedule had DA priority up to IFM schedule
- If the SC did not submit a real-time Export, SIBR would create a self-schedule equal to the IFM schedule
- DA priority > CAISO demand and PT exports > LPT exports > Economical Exports

Practice after the BPM change

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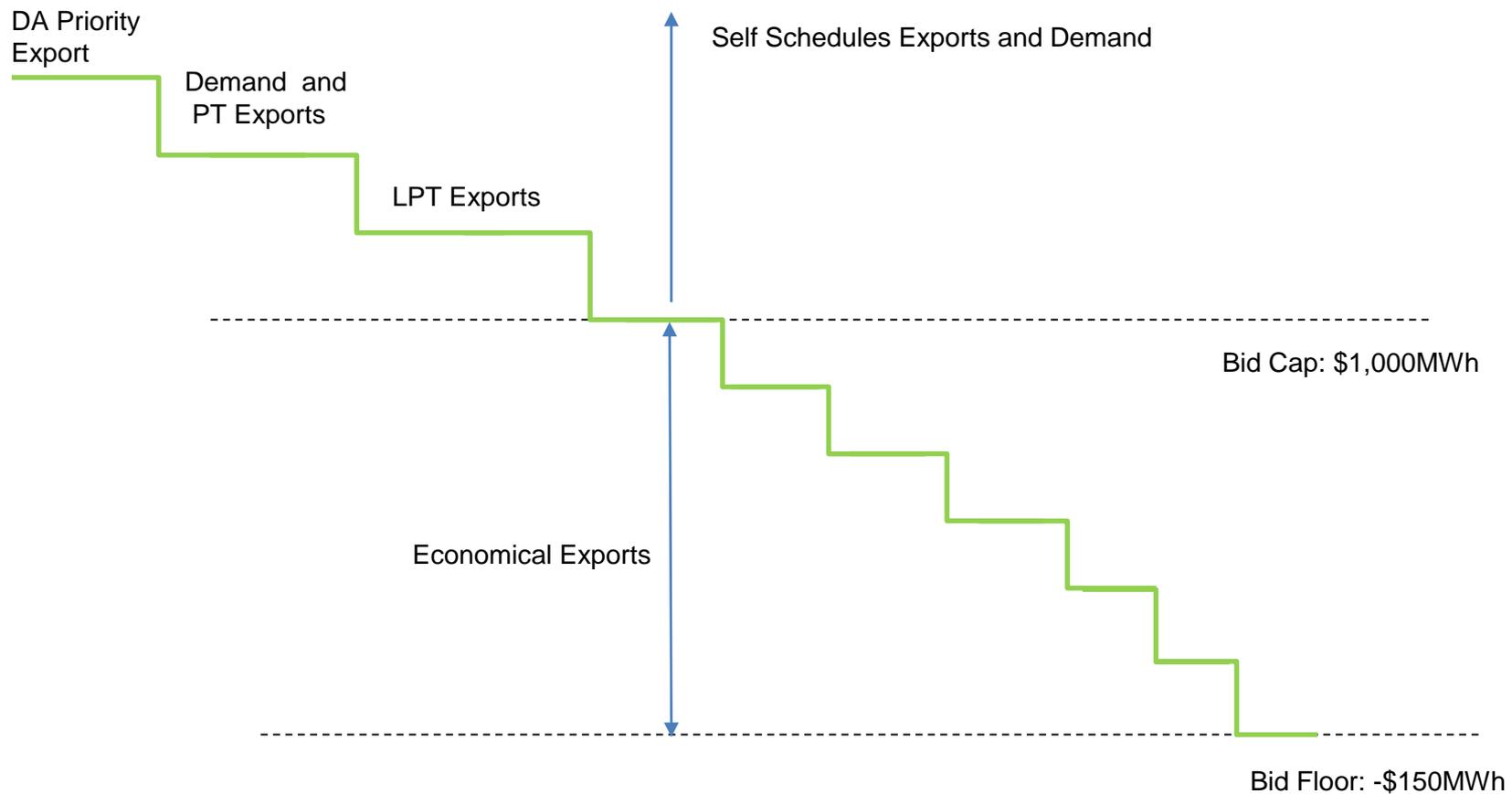
With this change, any day-ahead exports self scheduled into real-time will have a day-ahead priority only up to the RUC schedule

- Prior to this change the self schedule had a day ahead priority up to the IFM schedule.
- When RUC assesses the need to reduce exports, RUC schedules will be lower than IFM schedules

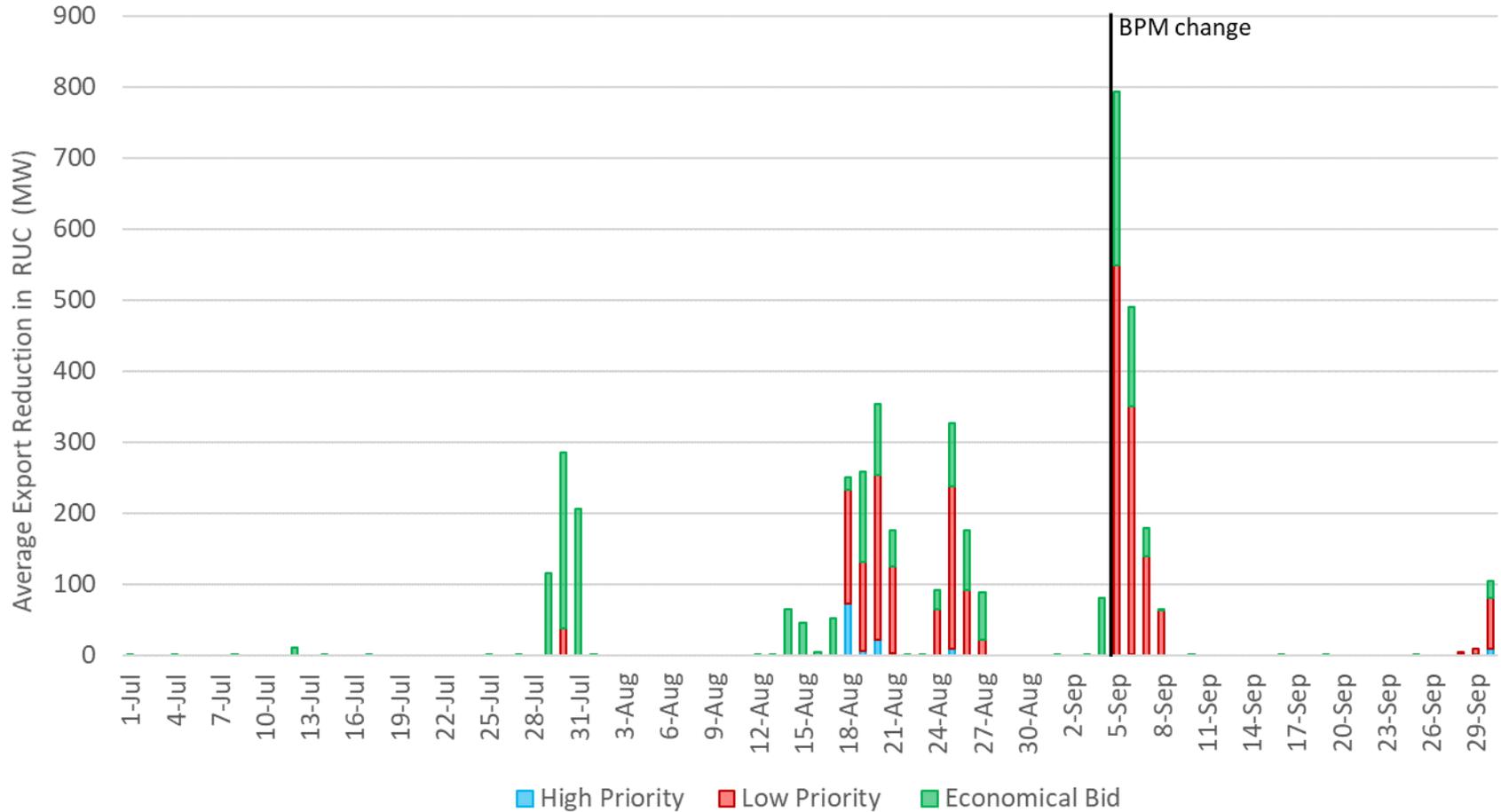


- Any self schedule above RUC level will not have a day-ahead priority. If not supported by non-RA, it will have the lowest priority

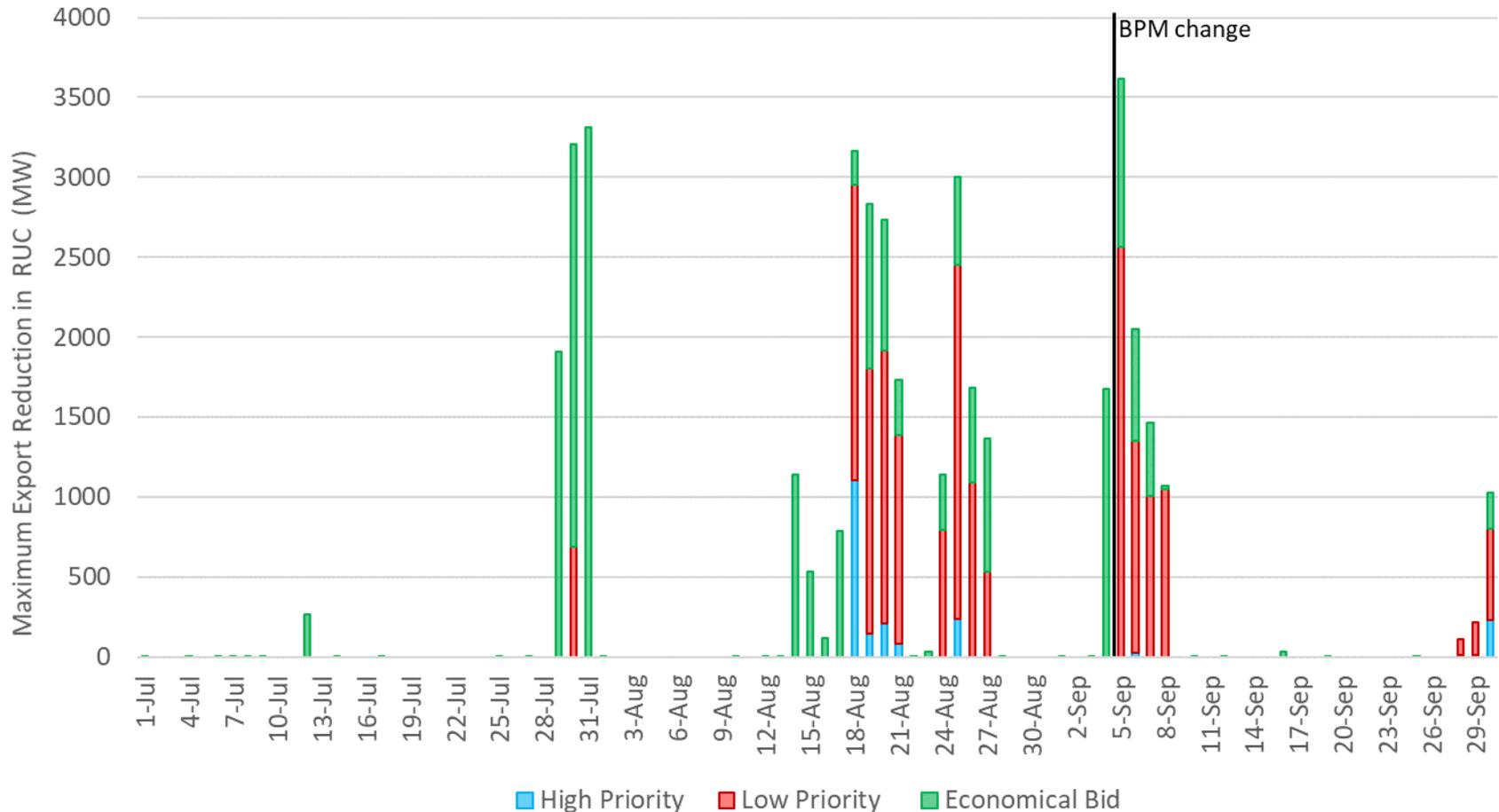
Priorities in real-time for Exports and Demand are utilized in the market to achieve optimal schedules



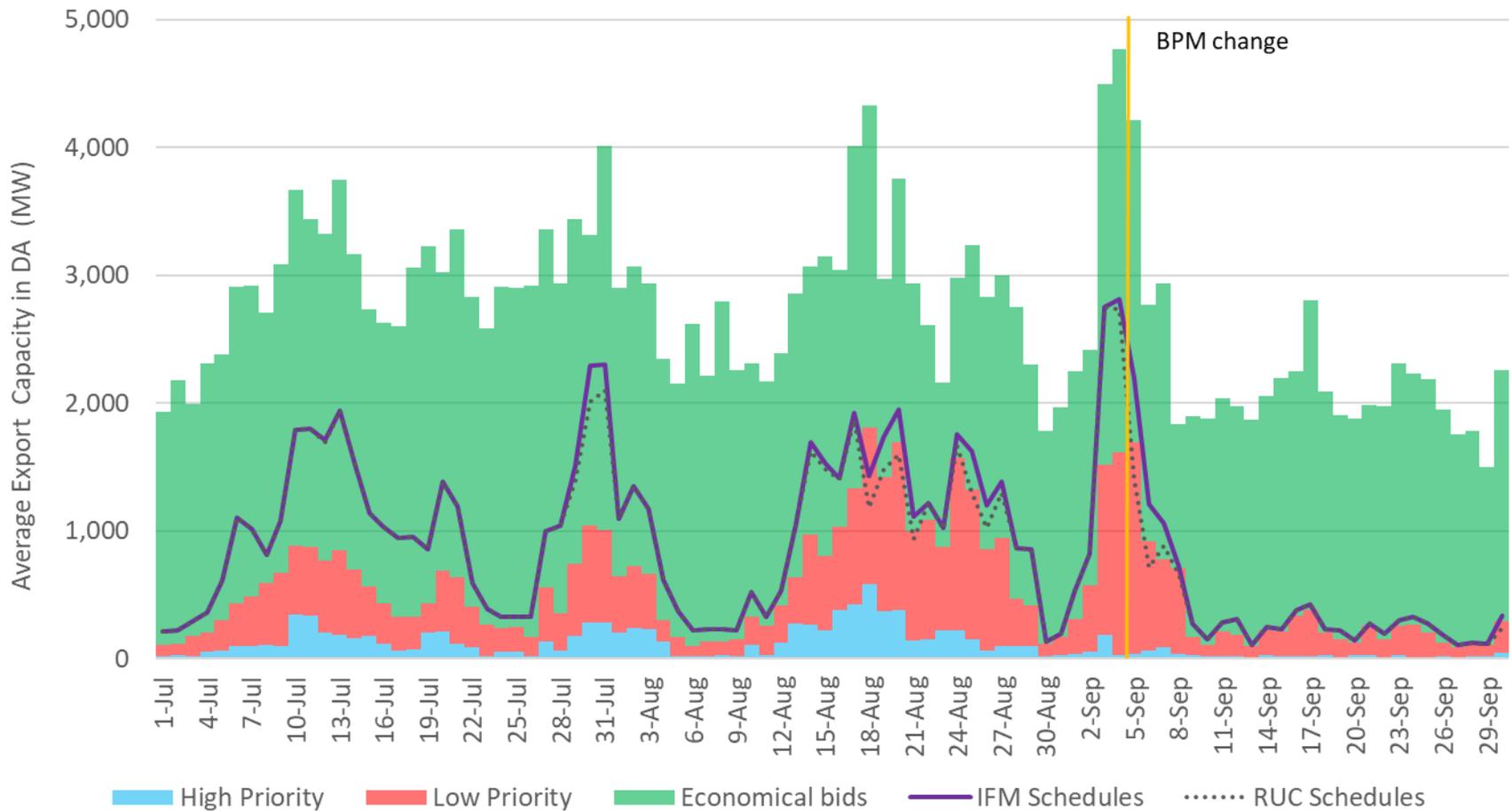
The BPM change enabled the market to better realize the feasible export schedules



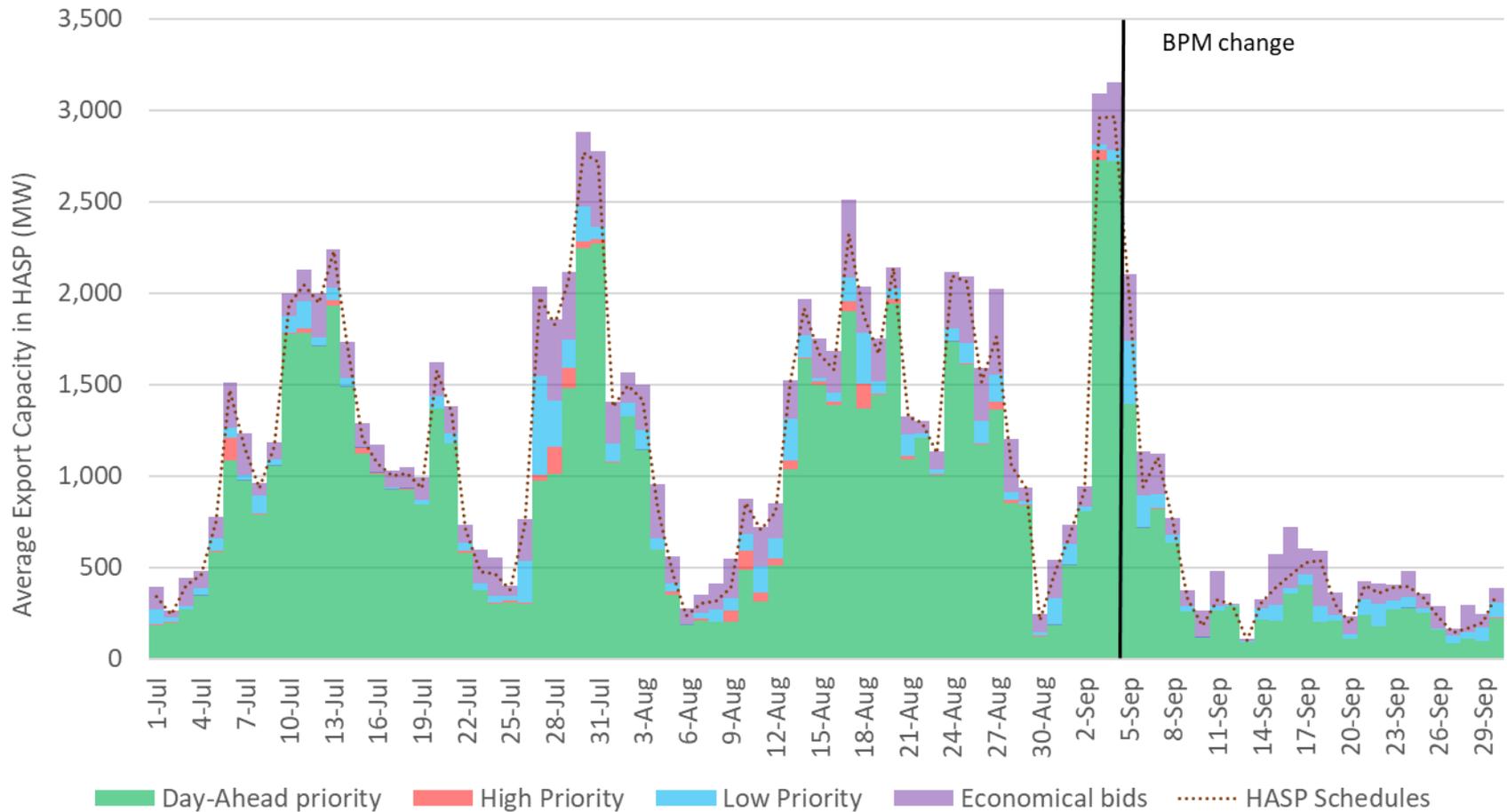
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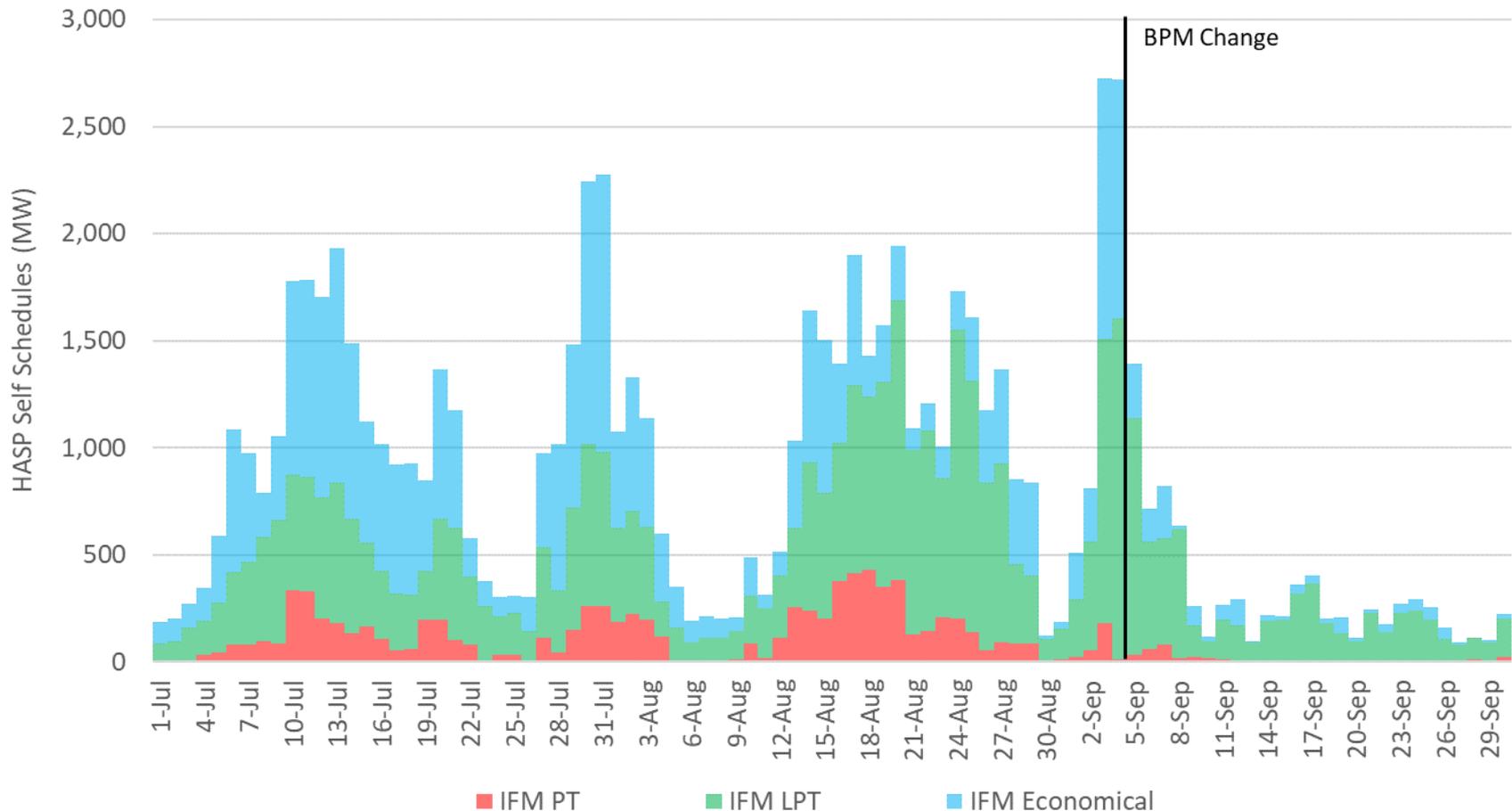
Exports coming in the day-ahead market are largely with economical bids and low priority self schedules



A large portion of exports in the real-time are with day-ahead priority



A large portion of DA priority self scheduling given to exports in real-time is coming from low priority and economical exports scheduled in day-ahead market





California ISO

Exports and Loads Scheduling Priorities Operations

David Delparte
Director, Operational Readiness

January 12, 2021

Operations Export Priorities

Current: Post September 5

- Integrated forward market (IFM) award is not physical
- We expect all day-ahead tags at residual unit commitment (RUC) award
 - When schedule clears RUC, this is the indication of the high priority going into the hour-ahead scheduling process (HASP)
- HASP if RUC export is not re-bid we expect it to clear (transmission constraint is the exception)
 - If export bid in HASP is sourced from non-RA (PT)
 - Export from RUC has higher priority than any export that bids in HASP (PT)
 - If export bid in HASP is bid as a price taker (LPT)

Operations Export Priorities

Current: Post September 5

- Tariff allows curtailment of exports
 - Based on the outcome here we will re-evaluate our internal procedures.
 - We have info on exports that are not non-RA sourced
 - We see price taker (PT) and lower price taker (LPT) in HASP results when they do not clear or power balance relaxed.
 - 2020 not aware of operators manually curtailing any (PT) export due to capacity issue
 - If LPT does not clear, if BA has reliability issue request emergency assistance



California ISO

Exports and Loads Scheduling Priorities Policy

Don Tretheway
Principal, Market Design Policy

January 12, 2021

Are additional policy changes need to provide comparable treatment for exports that CAISO receives for imports?

- Should RUC schedules without contracted supply continue have a higher priority than load in real-time?
- Clarify rules around high priority exports contracted with non-RA supply
 - Timing for contracting with non-RA supply
 - Priority relative to CAISO load when load shedding occurs
- Clarify rules regarding wheeling transactions
 - Can a wheel specify it has contracted with the import supply?
 - Must transmission be procured prior to market?

NEXT STEPS

Schedule (1 of 2)

Date	Milestones
Jan 12	Workshop on export and load scheduling priorities
Jan 13	Workshop on EIM resource sufficiency evaluation
Jan 14	Comments due on Jan 6 call discussion/presentation
Jan 20	Comments due - Jan 12-13 workshop discussions/presentations
Jan 22*	Post straw proposal presentation
Jan 26 or 27*	Stakeholder call
Feb 3*	Comments due

*TBD

Schedule (2 of 2)

Date	Milestones
Feb 8-12*	Post draft final proposal (board memo), business requirement specifications, and tariff language
Feb 16-18*	Stakeholder call
Feb 25*	Comments due – draft final proposal and draft tariff language
Mar 10	EIM Governing Body meeting
Mar 24-25	ISO Board of Governors meeting
Jun 1	Implementation

*TBD

Next Steps

- Workshop on Jan. 13 will discuss the current Western EIM resource sufficiency evaluation. Meeting details are available on the initiative webpage at <https://stakeholdercenter.caiso.com/StakeholderInitiatives/Market-enhancements-for-summer-2021-readiness>.
- Submit comments on the workshop presentations and discussions by Jan. 20 using the comment template on the initiative webpage at link above.