FLUENCE

A Siemens and AES Company

MATT GROVER | 26 AUG 2025

How the NEM BESS fleet is operating on peak days, & how to be a savvy operator

OUR MISSION

Transform the way we power our world to create a more sustainable future.

PURPOSE-BUILT PURPOSE-DRIVEN

ENERGY STORAGE SOLUTIONS (1)

41
TOTAL GWh

265
PROJECTS

SERVICES (2)

10
TOTAL GW

OPTIMIZATION SOFTWARE (2)

MOSAIC

15
GW OF AI-OPTIMIZED BIDDING OF RENEWABLES AND STORAGE

NISPERA

19
GW OF RENEWABLE AND STORAGE ASSETS UNDER MANAGEMENT

(1) Deployed or contracted as of June 30, 2025

(2) Contracted or assets under management as of June 30, 2025

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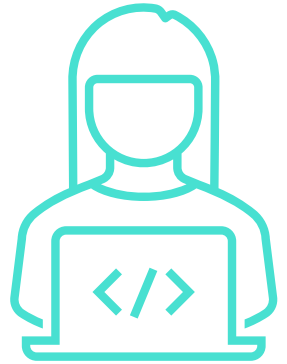
Two key questions for today

1) How is the NEM's fleet of BESS trading and operating, on key days?



2) What tools does a BESS trader need in the toolkit, to navigate key days?

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Key themes we will explore today

1. BESS have diverse objectives and diverse operations

2. BESS are trading using a combo of algorithmic bidding + human direction

3. Benchmarking or quantifying a BESS' 'trading performance' requires nuance

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Deep dive on 3 days in June

Chart: NEM BDU fleet total daily wholesale revenue, last 365 days to 23 Aug

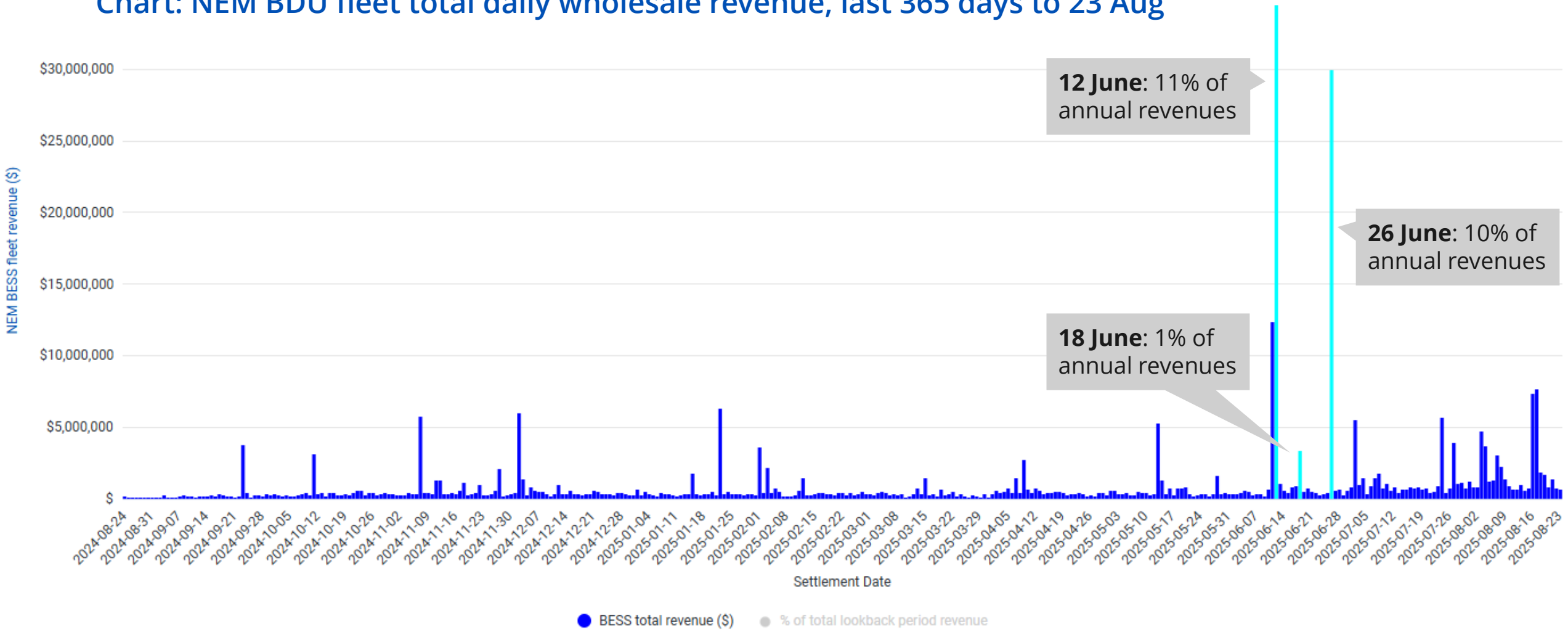

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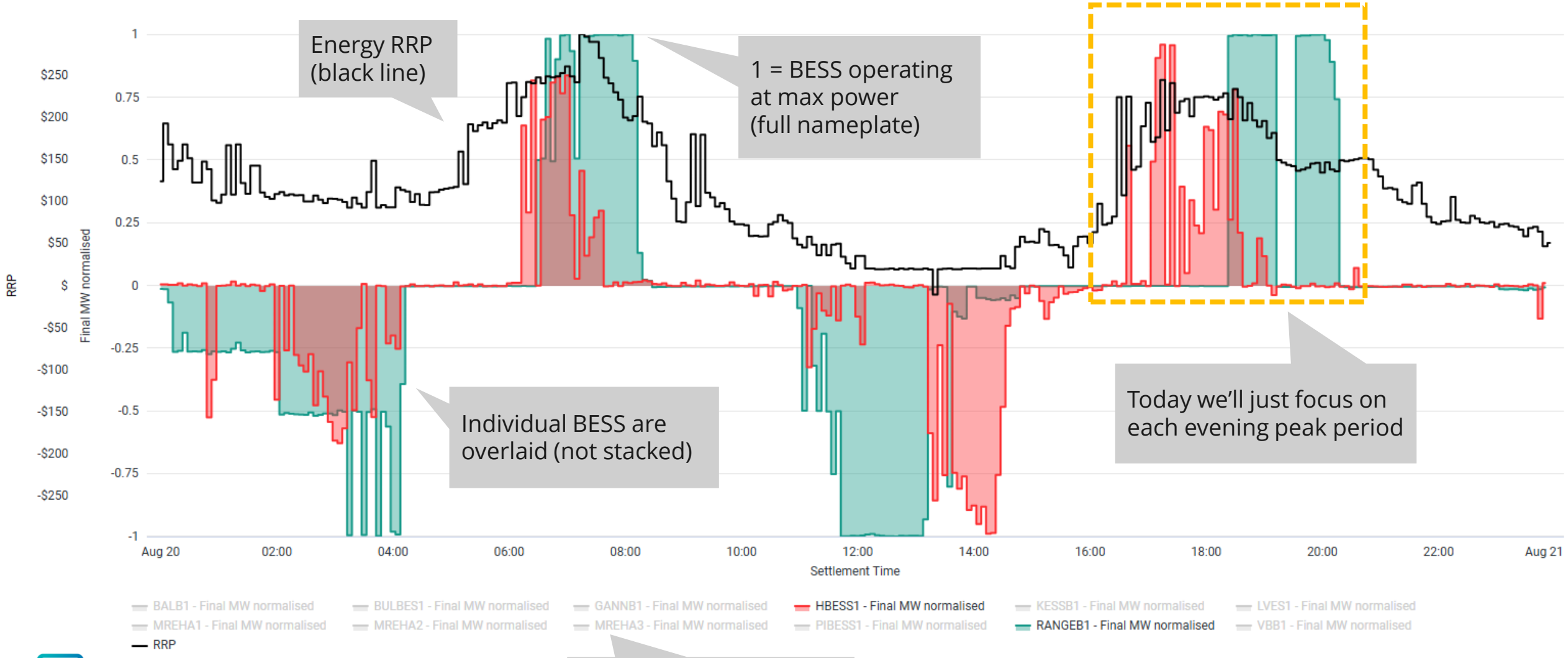
Chart orientation: each BESS' MW are normalised, as if each BESS were the same size (in MW)



9 operational Scheduled BDUs in VIC

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Day one: 12 June 2025

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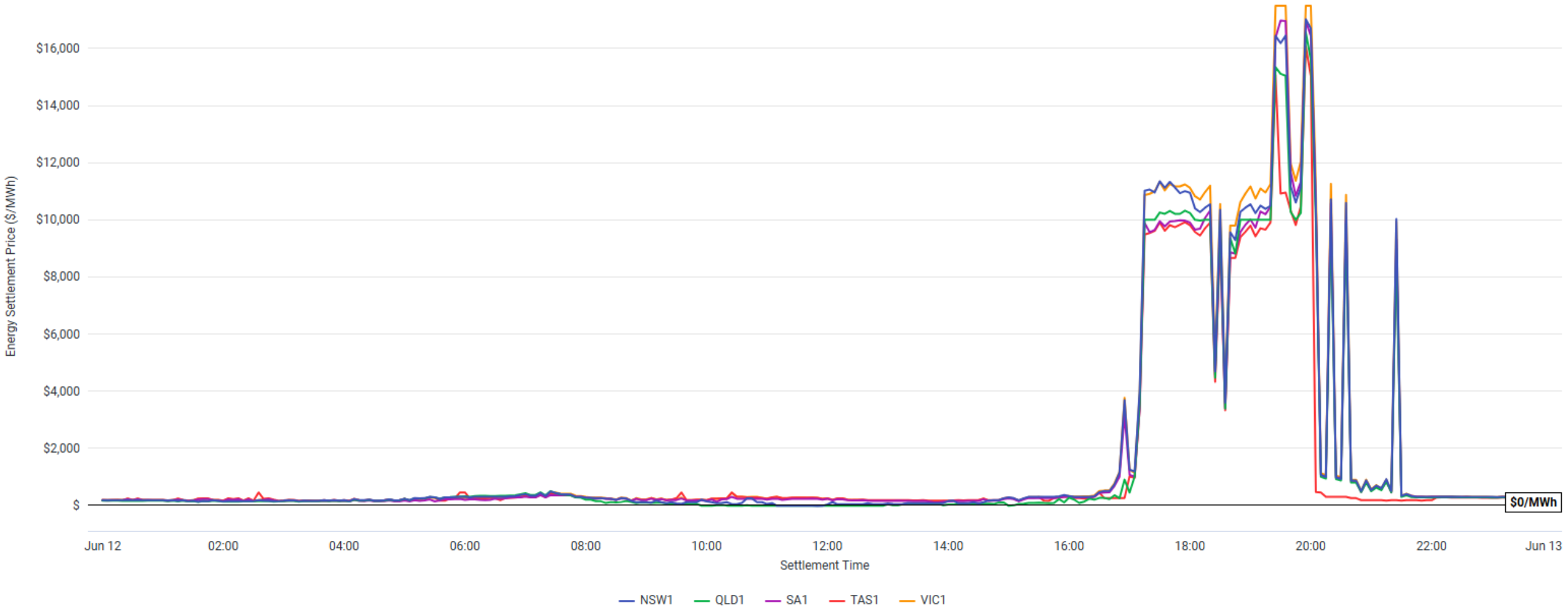
12 June 2025

~2 Hours of prices at ~$10,000
followed by
~25min of prices at ~$17,500



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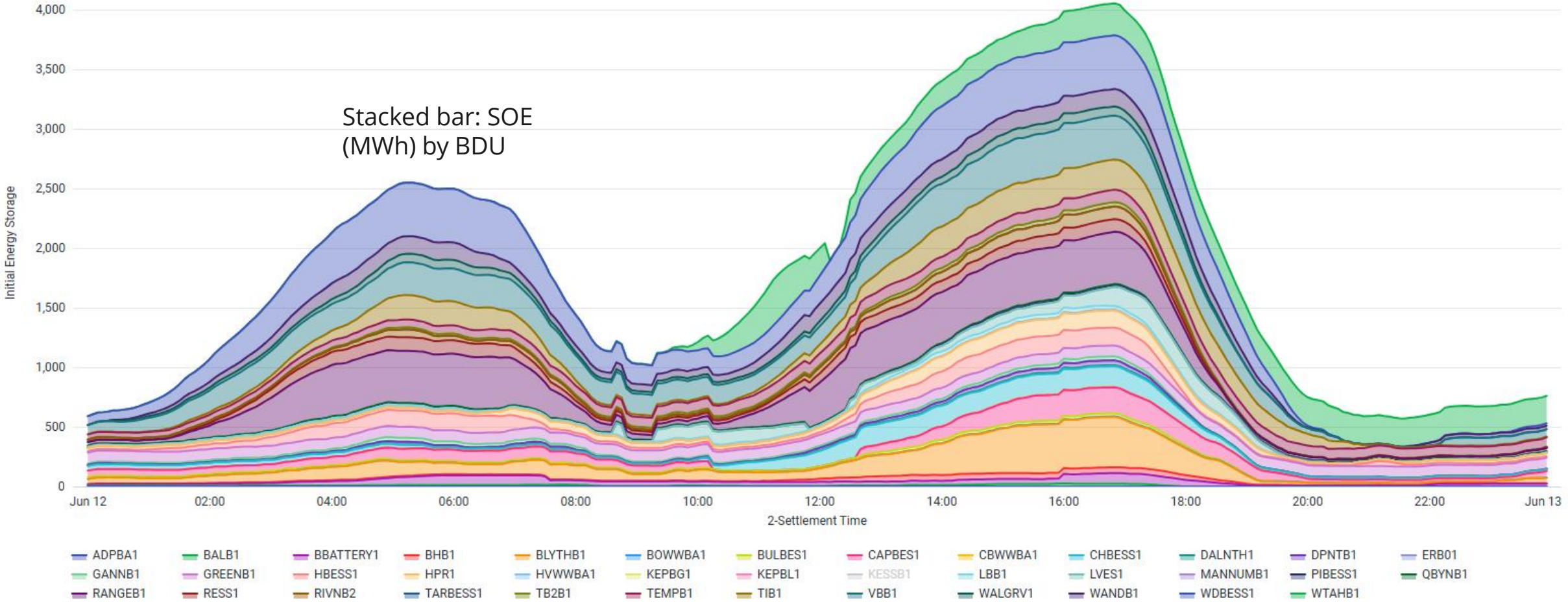
The BDU fleet is operating in a diverse manner



KESSB1 removed from chart due to data issue, but accounted for in figures

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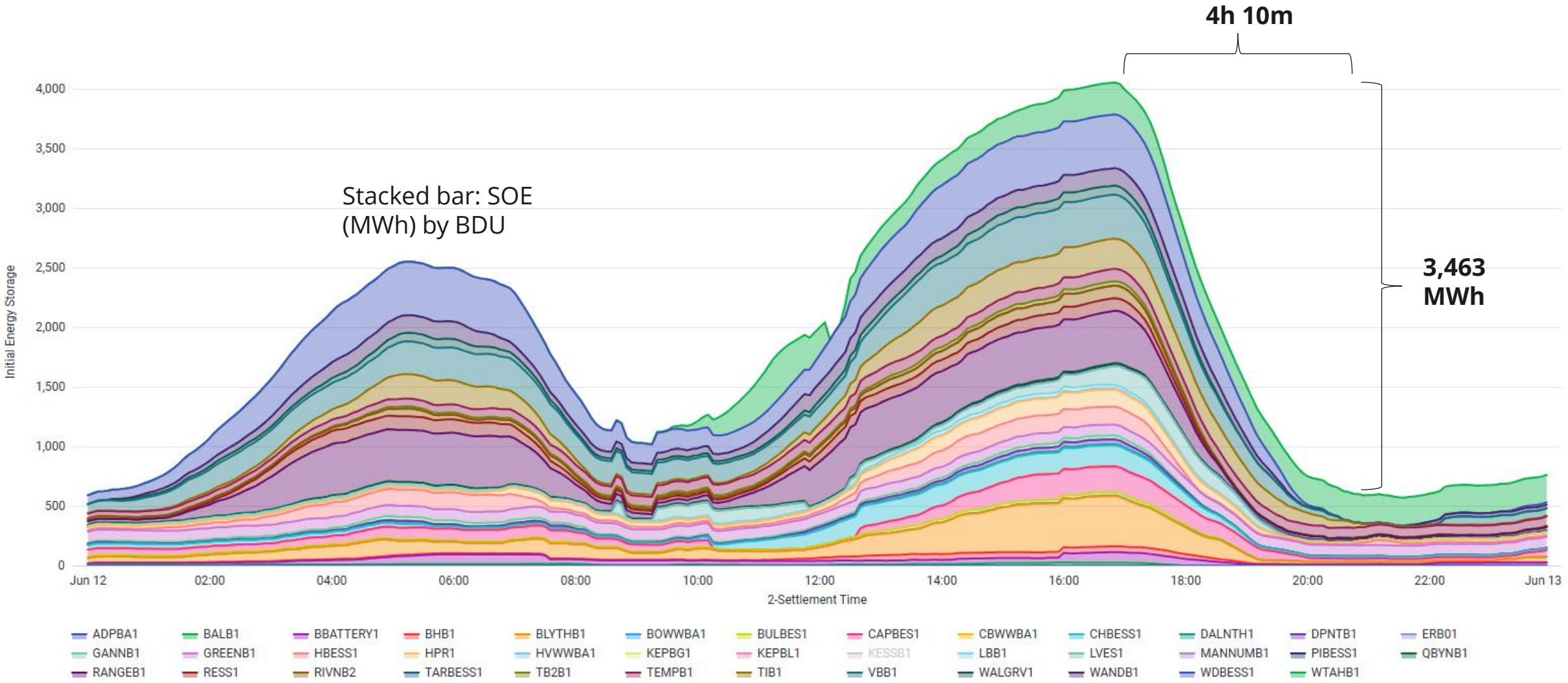

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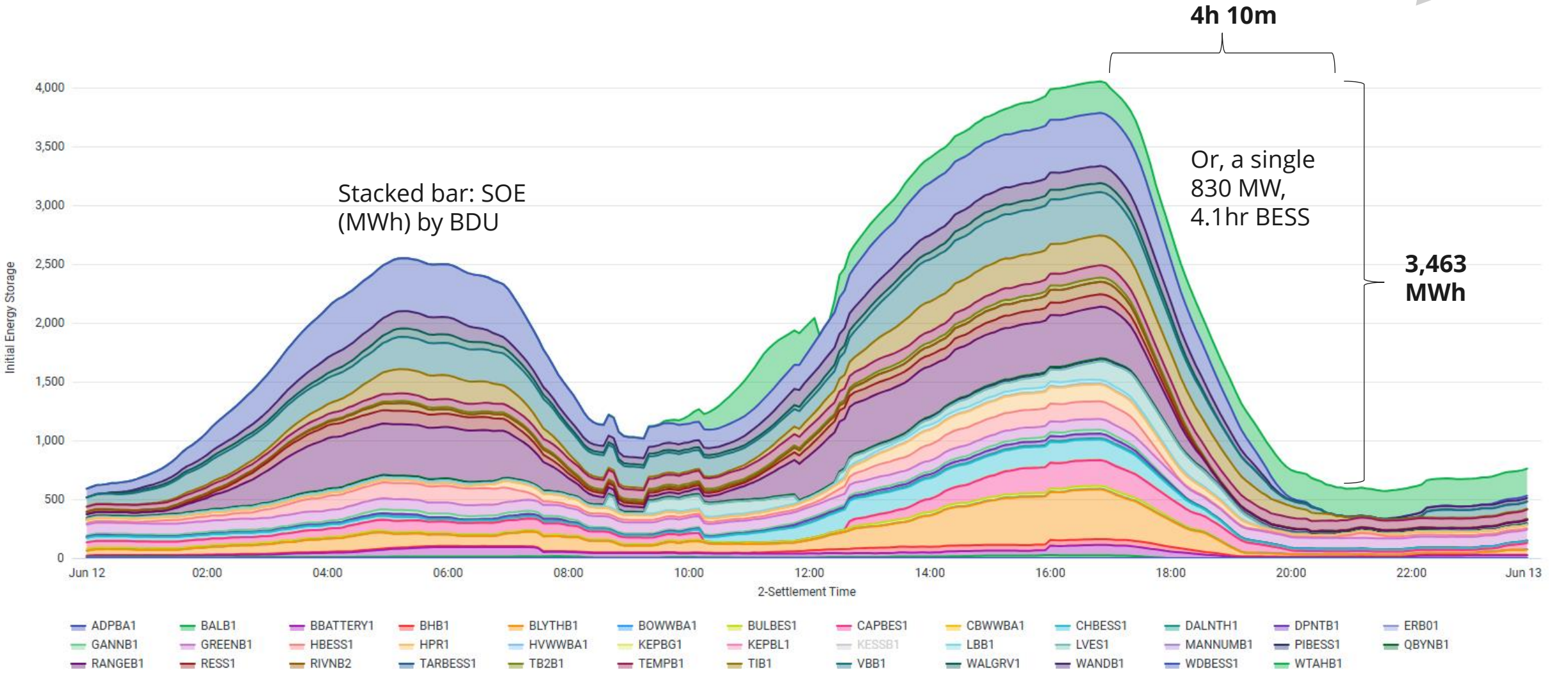
The BDU fleet is operating in a diverse manner

Duration, through diversity



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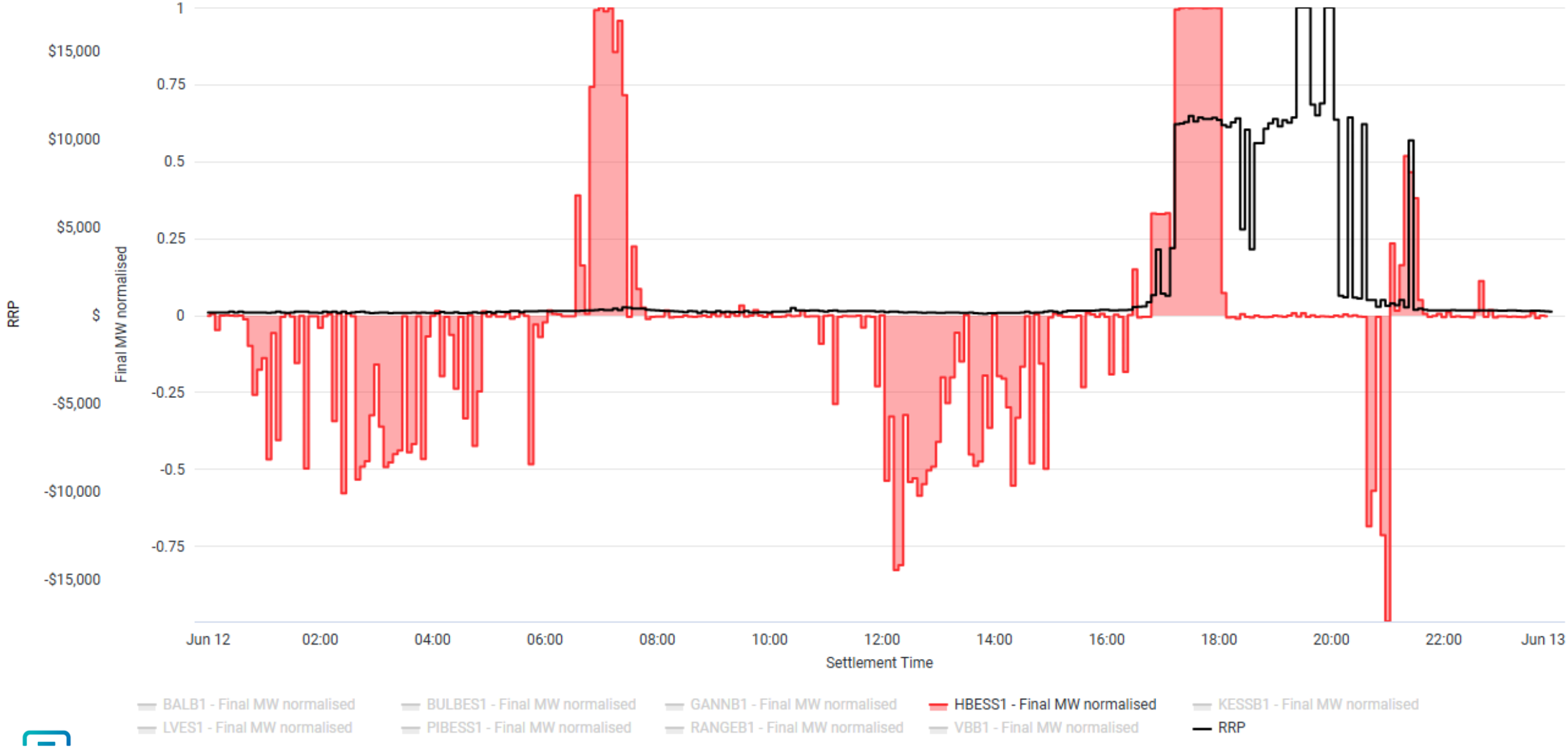
Hazelwood (1hr)



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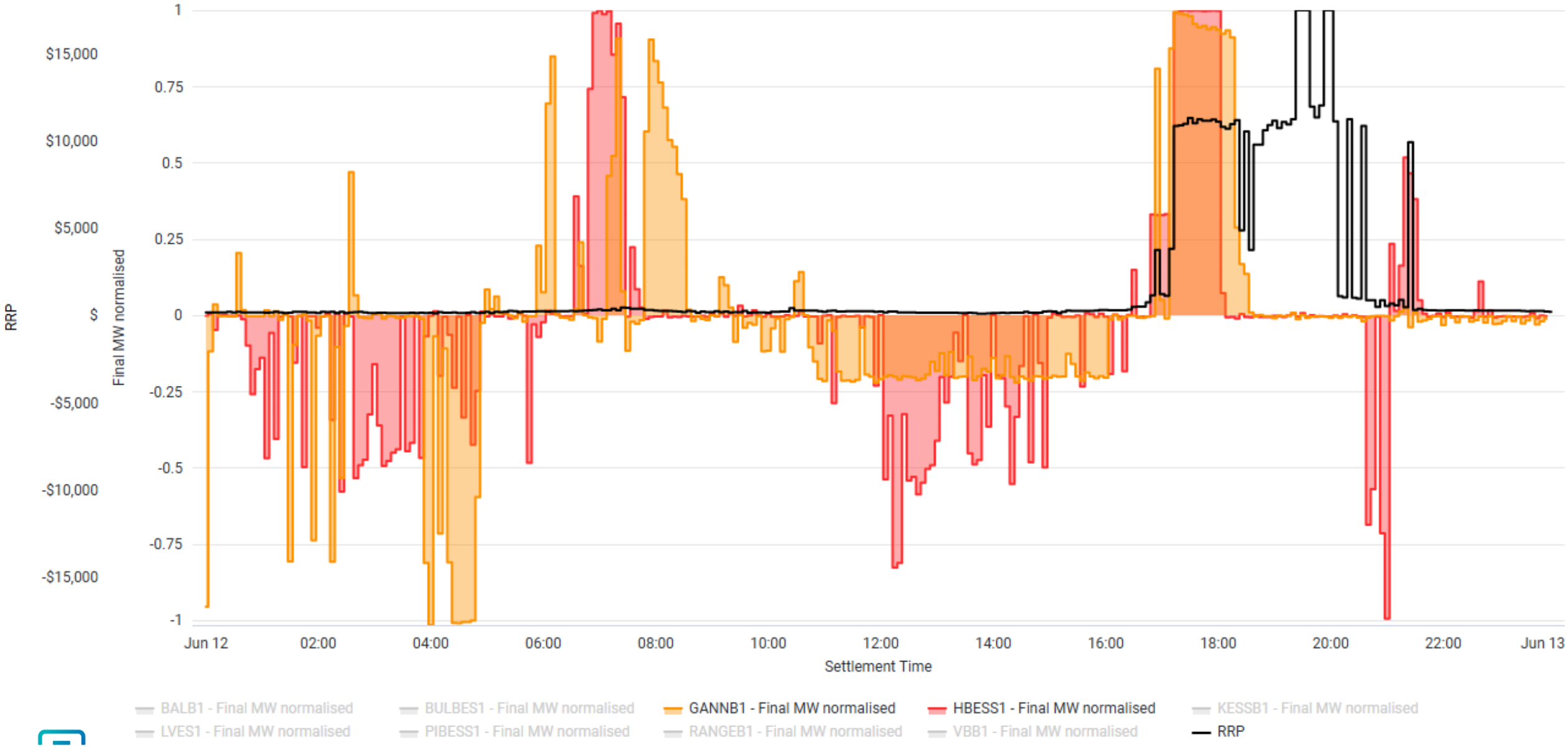
Hazelwood (1hr)
Gannawarra (2hr)



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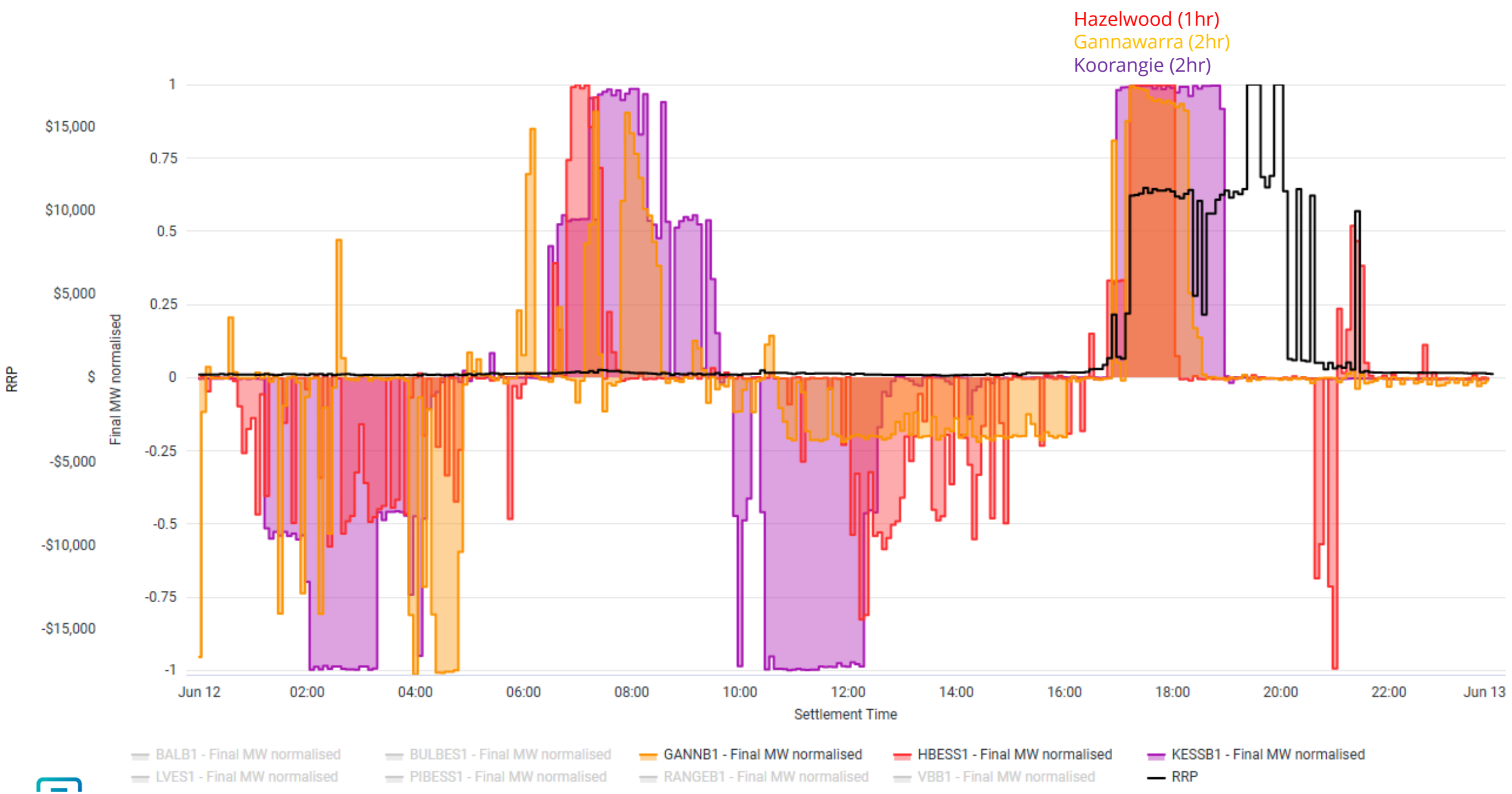

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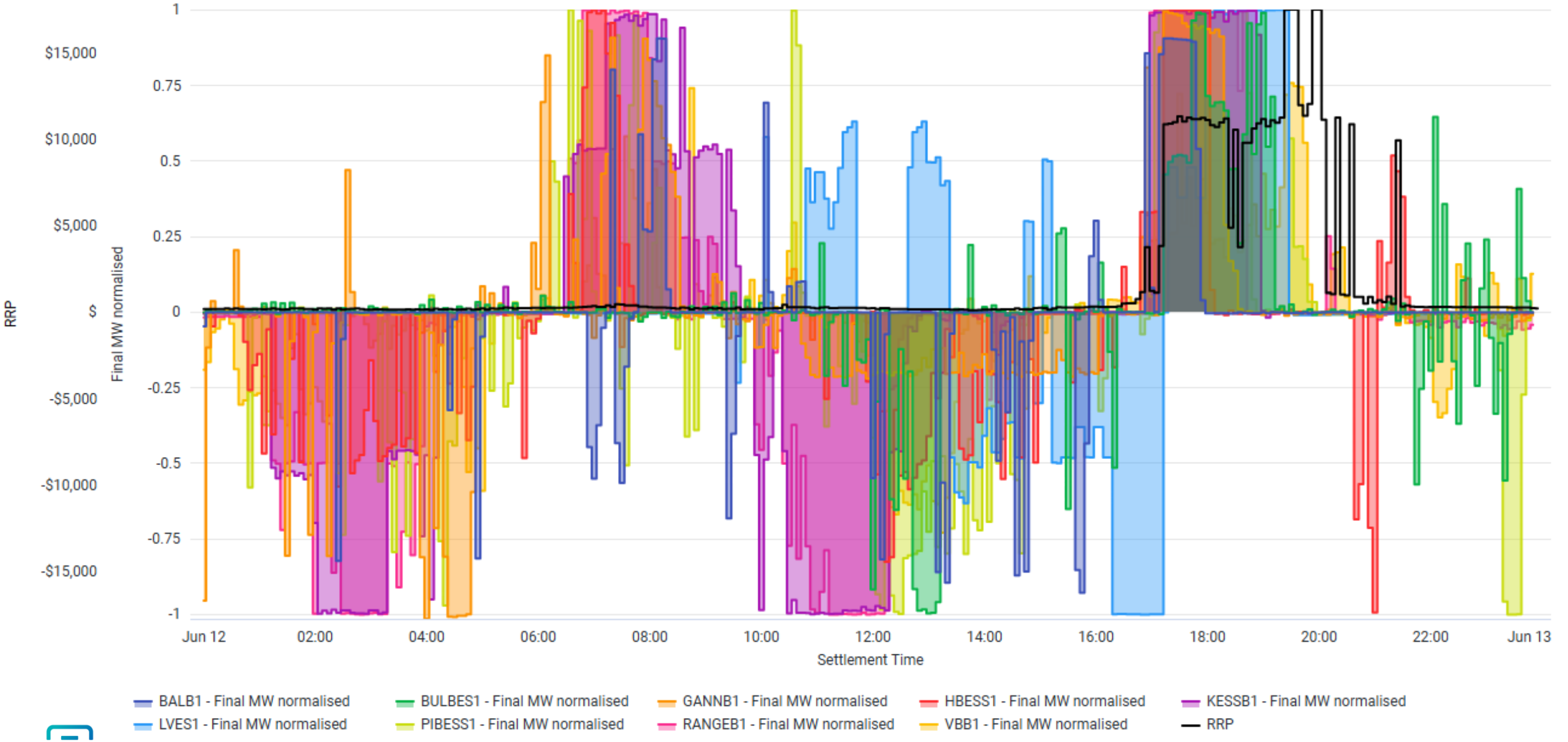

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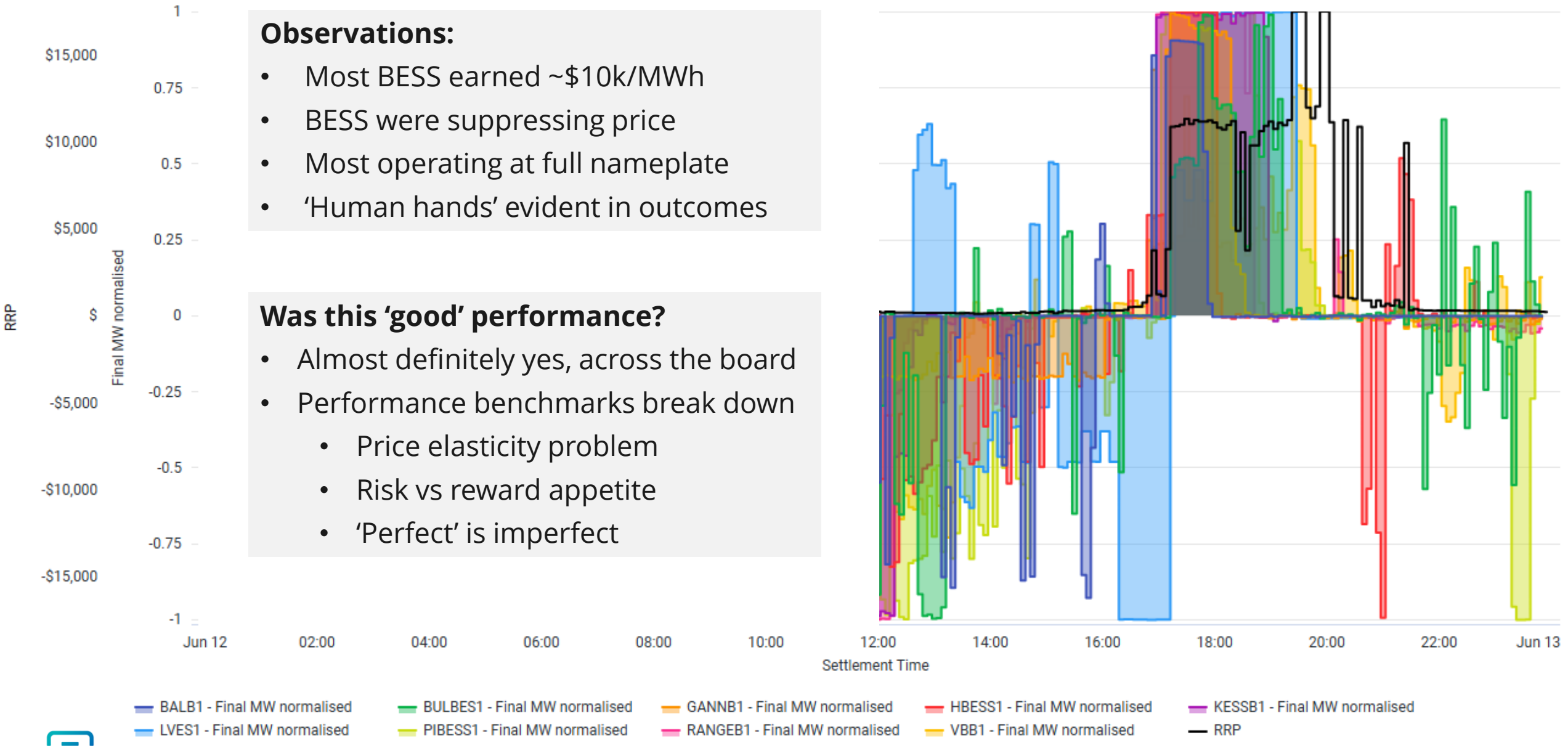
Observations:

- Most BESS earned ~$10k/MWh
- BESS were suppressing price
- Most operating at full nameplate
- ‘Human hands’ evident in outcomes

Was this ‘good’ performance?

- Almost definitely yes, across the board
- Performance benchmarks break down
  - Price elasticity problem
  - Risk vs reward appetite
  - ‘Perfect’ is imperfect



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Day two: 18 June 2025

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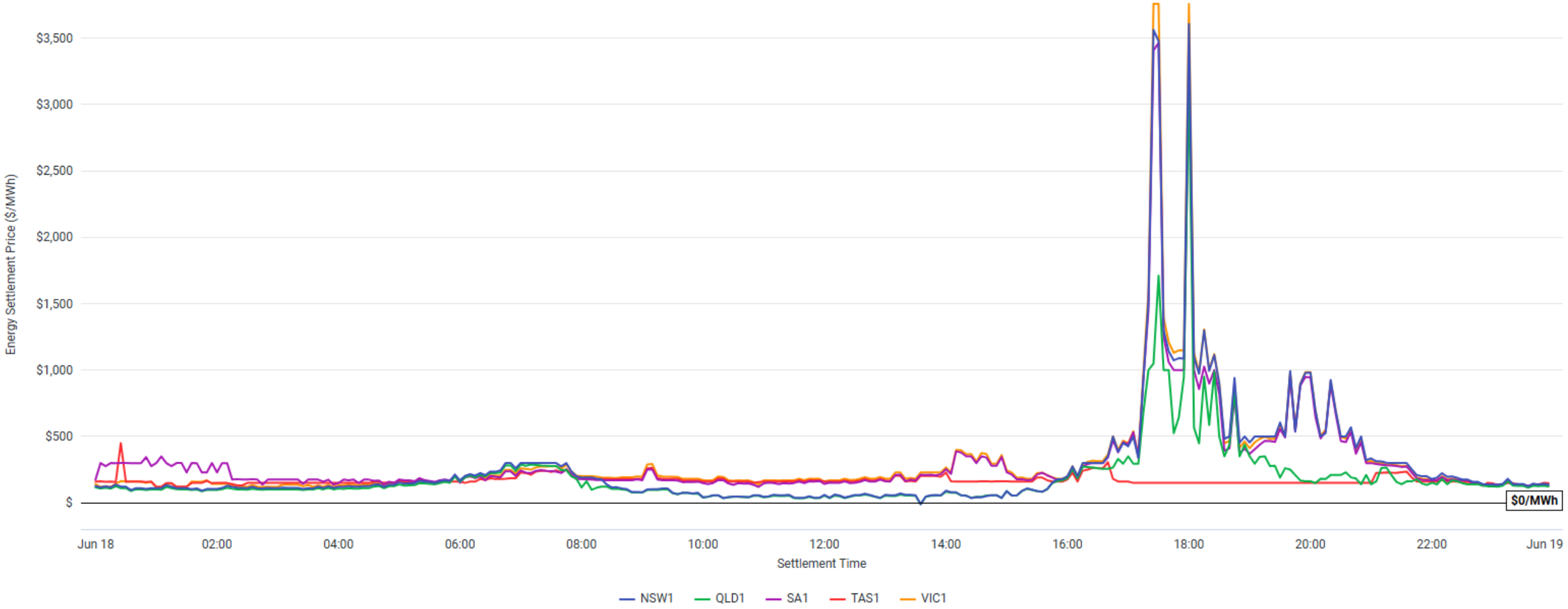
18 June 2025

3 spikes to ~$3,500 / MWh
amongst
2hrs total > $700 / MWh



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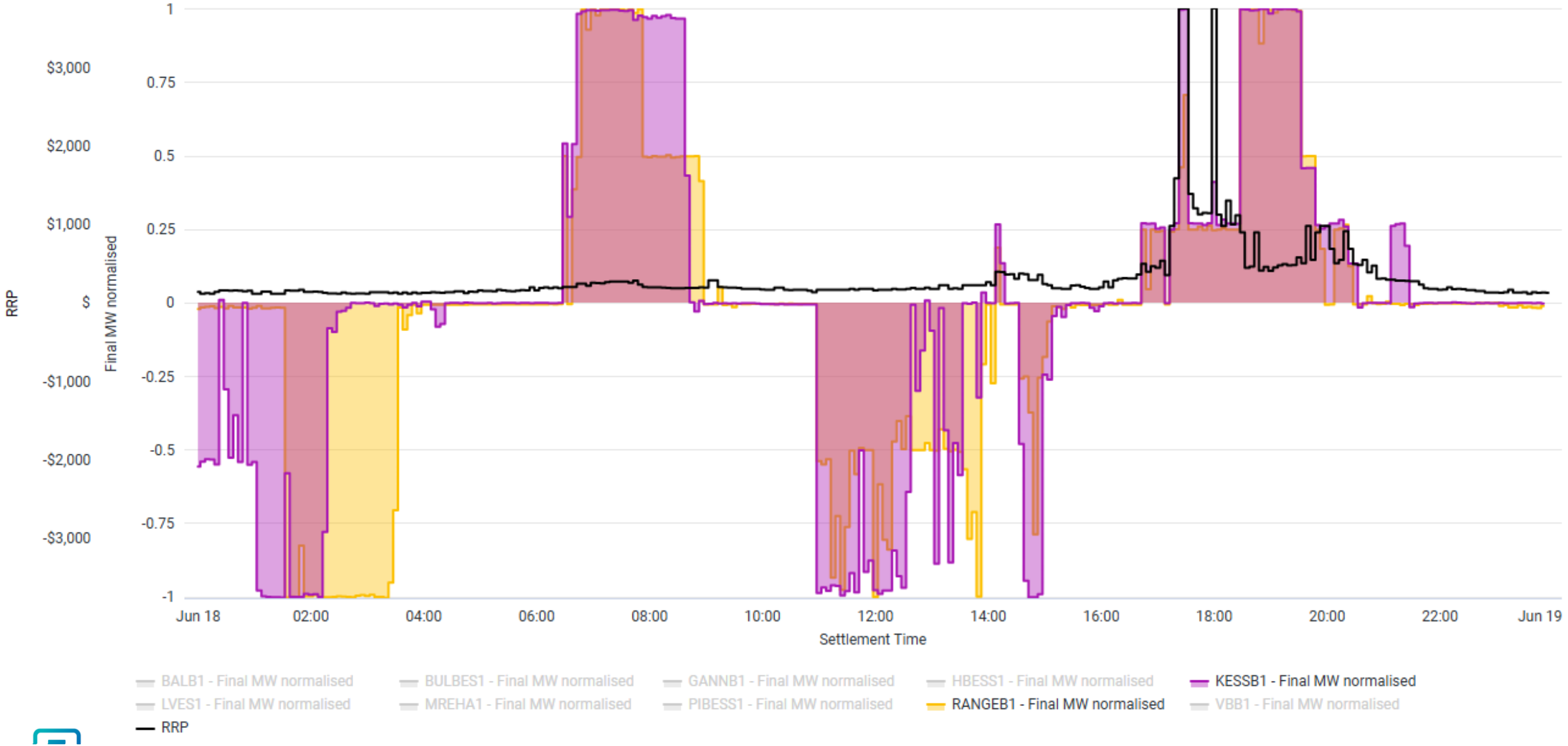
Rangebank (2hr)
Koorangie (2hr)



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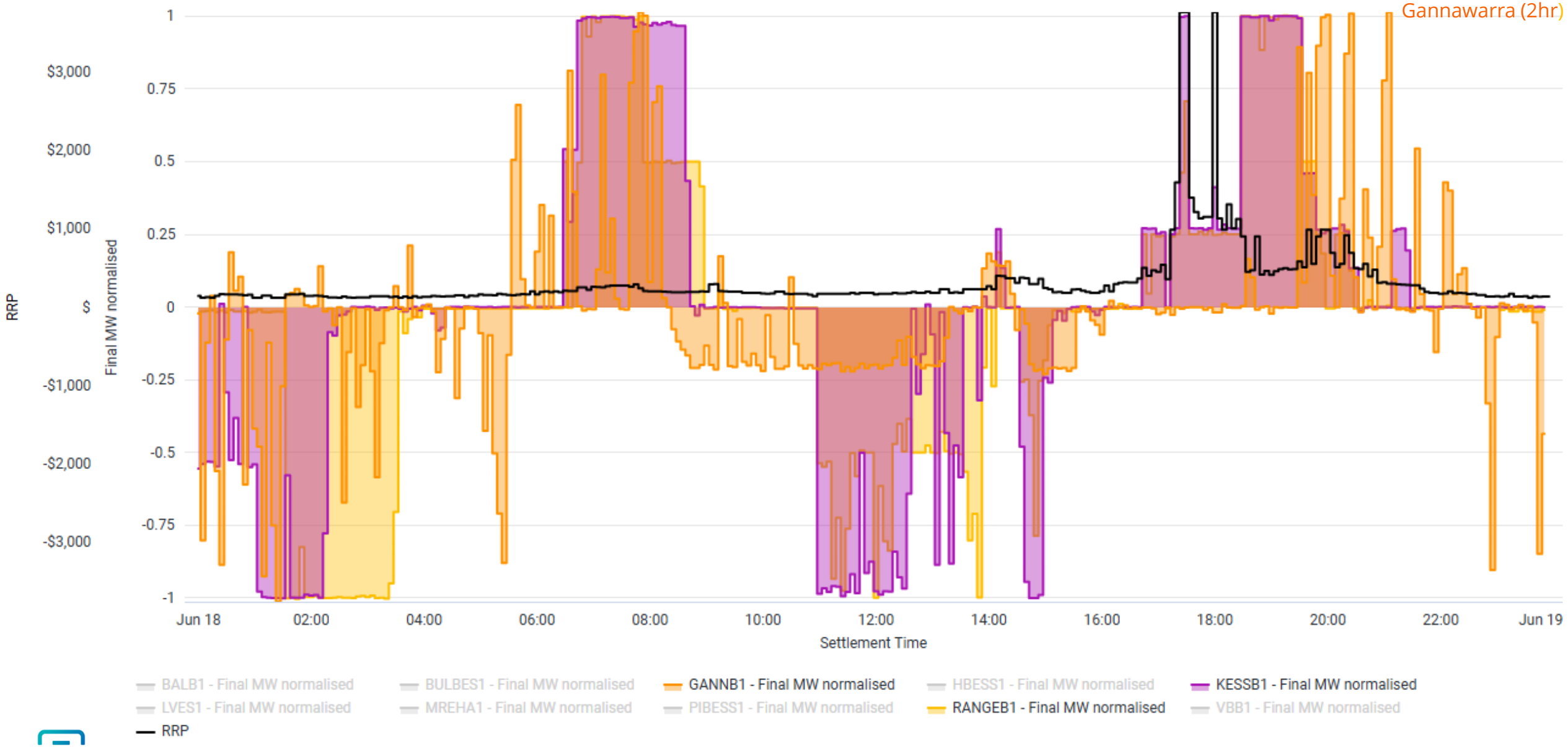
Rangebank (2hr)
Koorangie (2hr)
Gannawarra (2hr)



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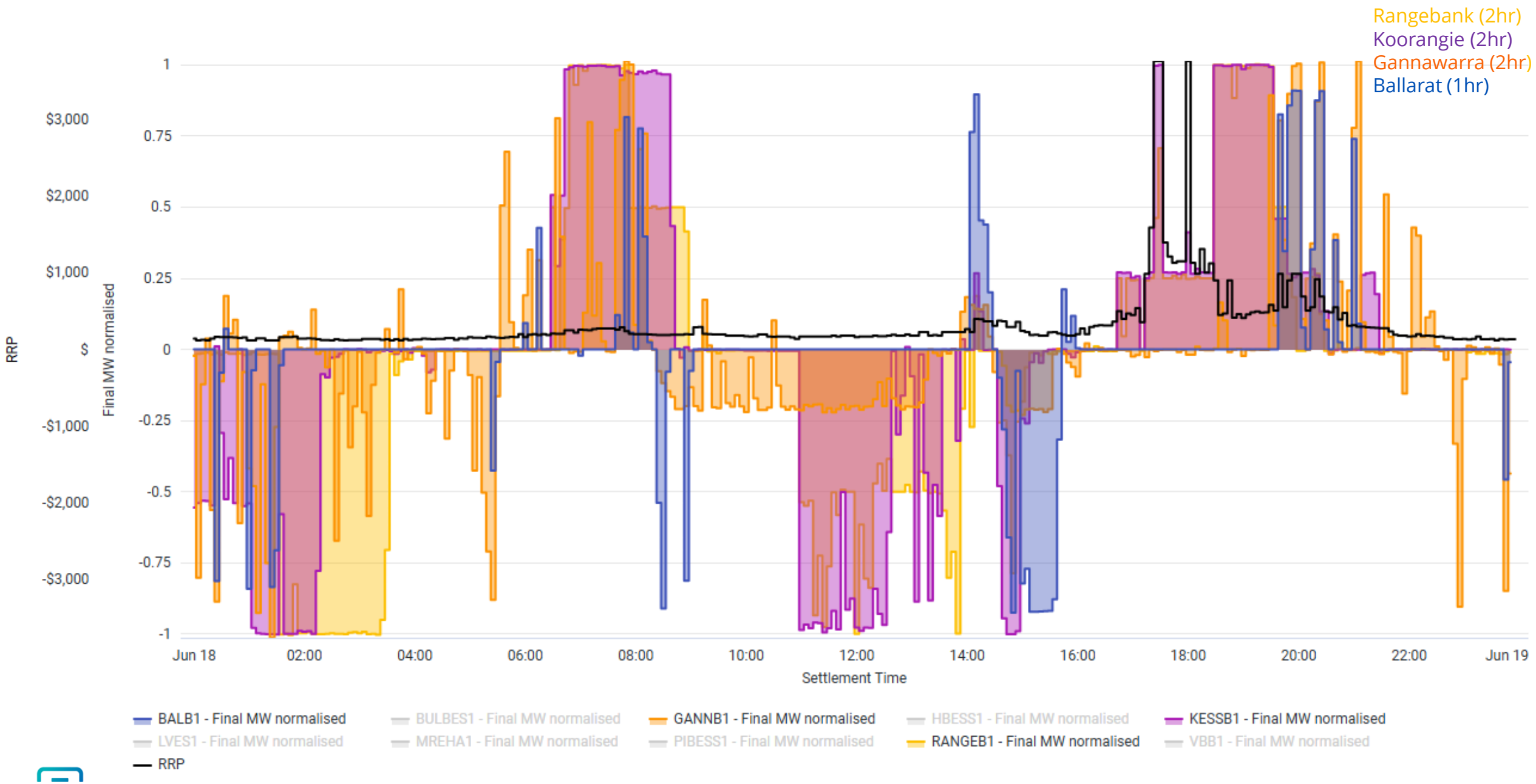

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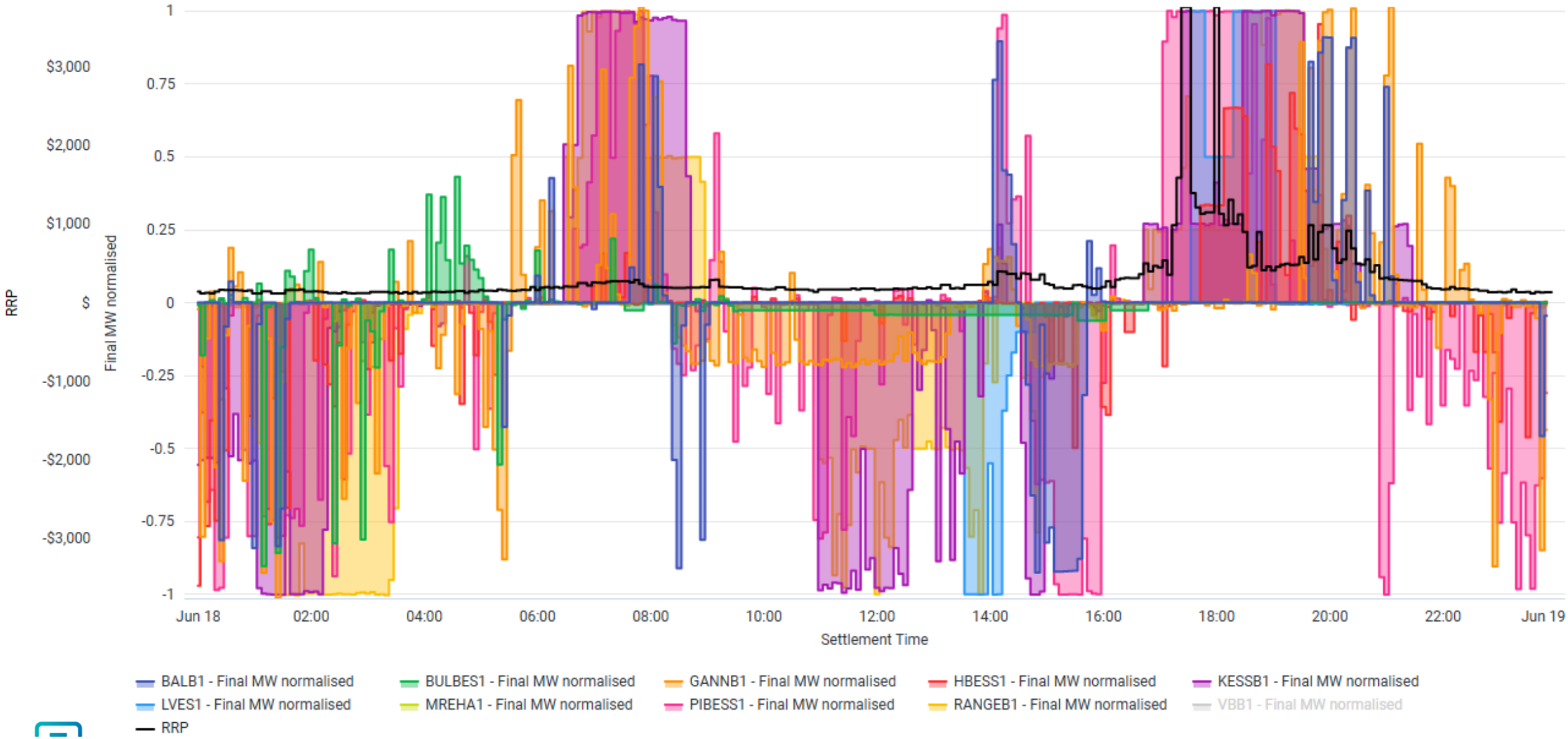

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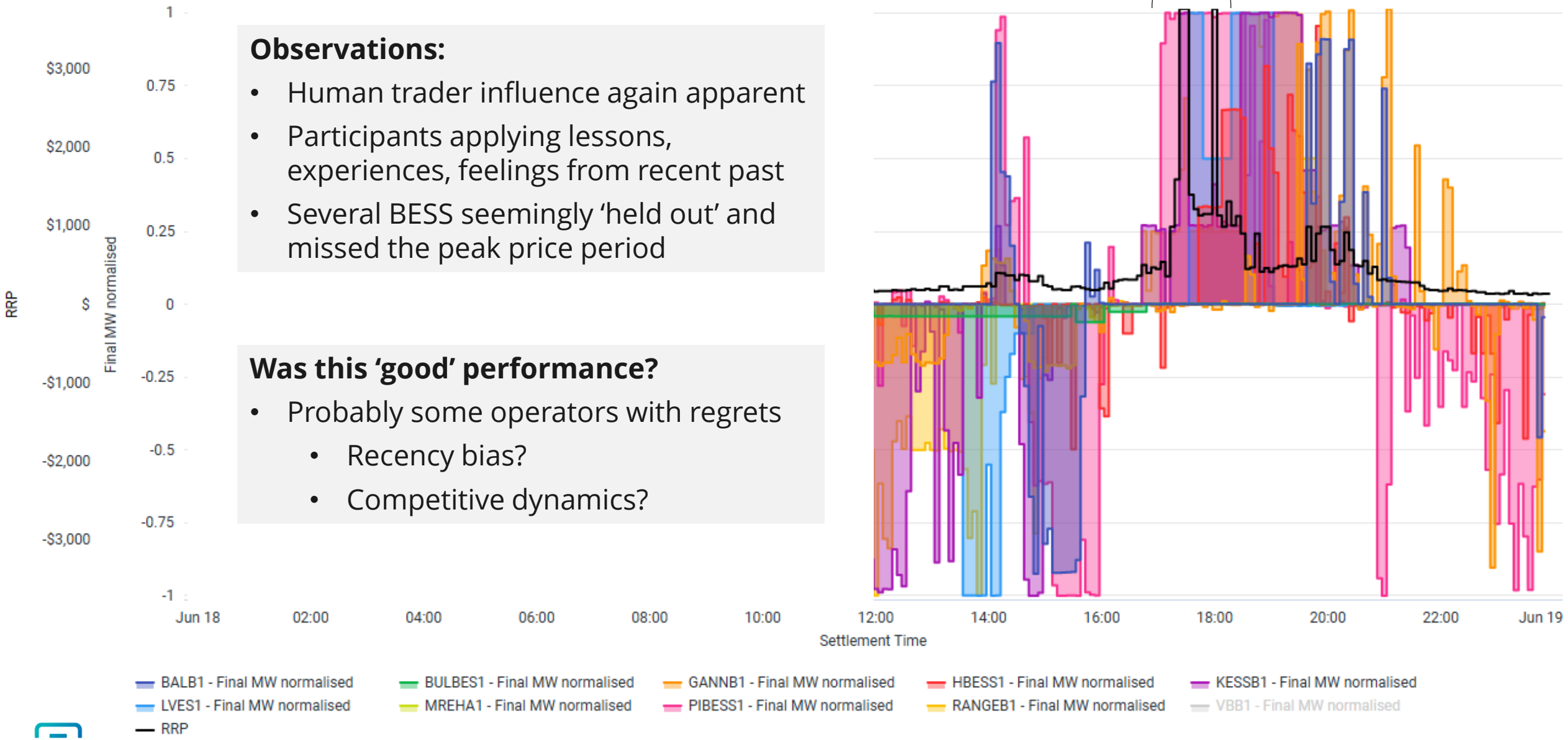
Top 75 minutes of prices:
only ~50% of possible fleet MW discharge

Observations:

- Human trader influence again apparent
- Participants applying lessons, experiences, feelings from recent past
- Several BESS seemingly 'held out' and missed the peak price period

Was this 'good' performance?

- Probably some operators with regrets
  - Recency bias?
  - Competitive dynamics?



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Day three: 26 June 2025

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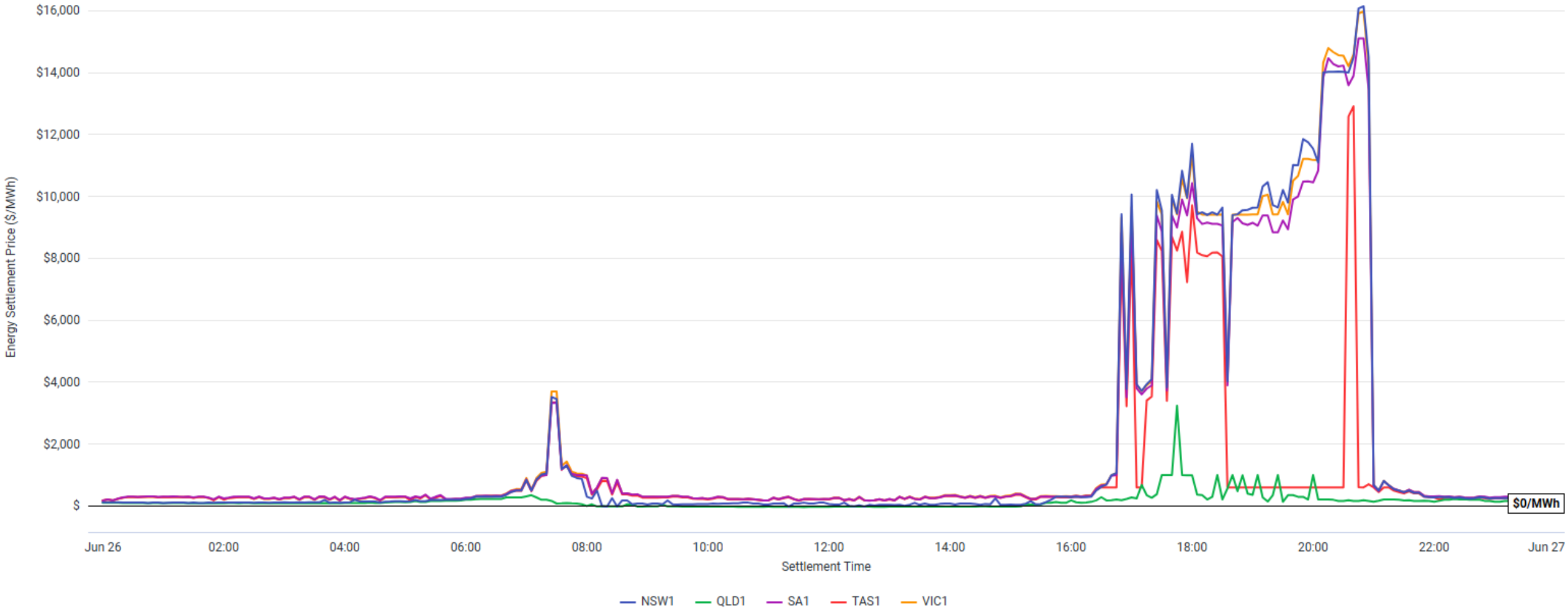
26 June 2026

~2 Hours of prices at ~$9,000
followed by
~45min of prices at ~$15,000



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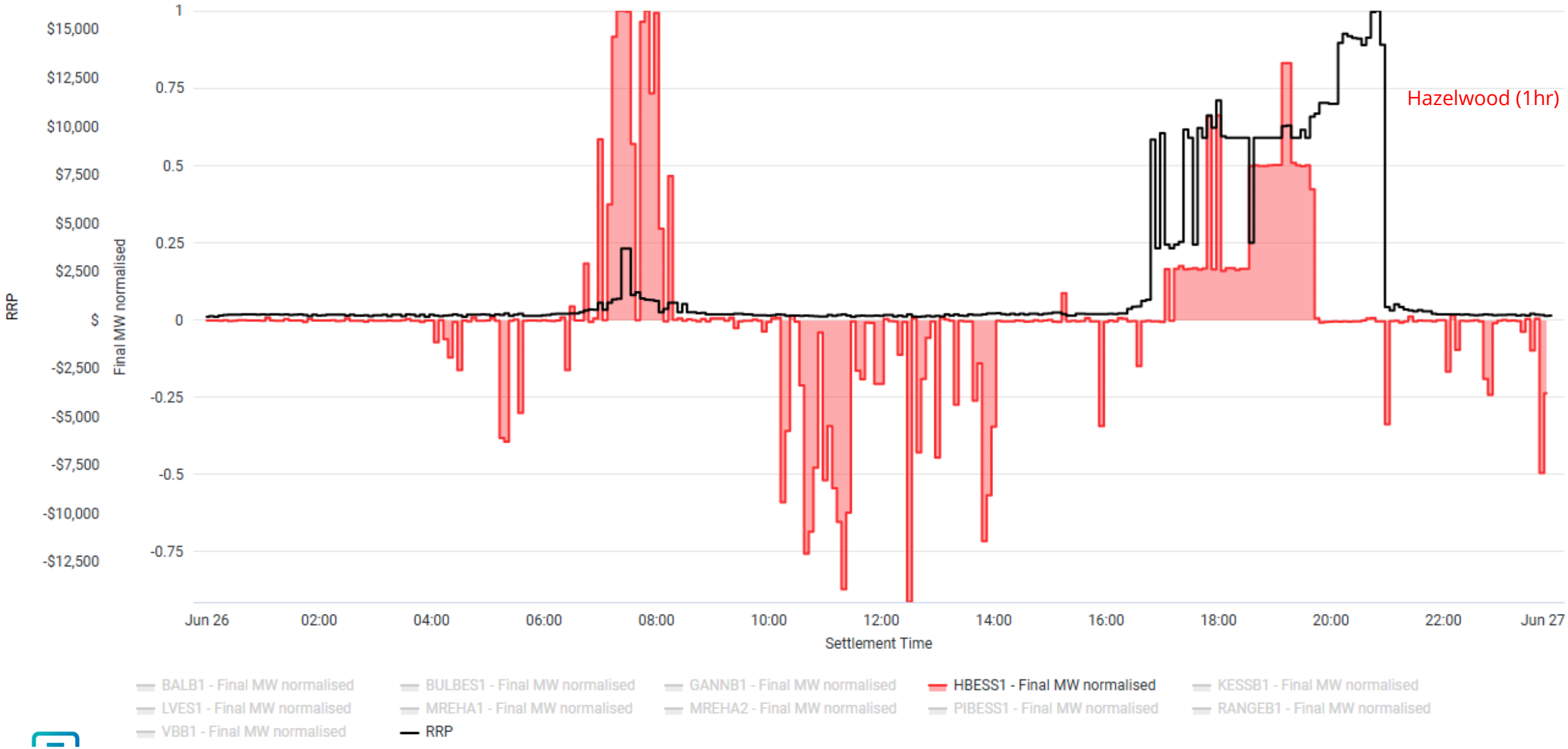

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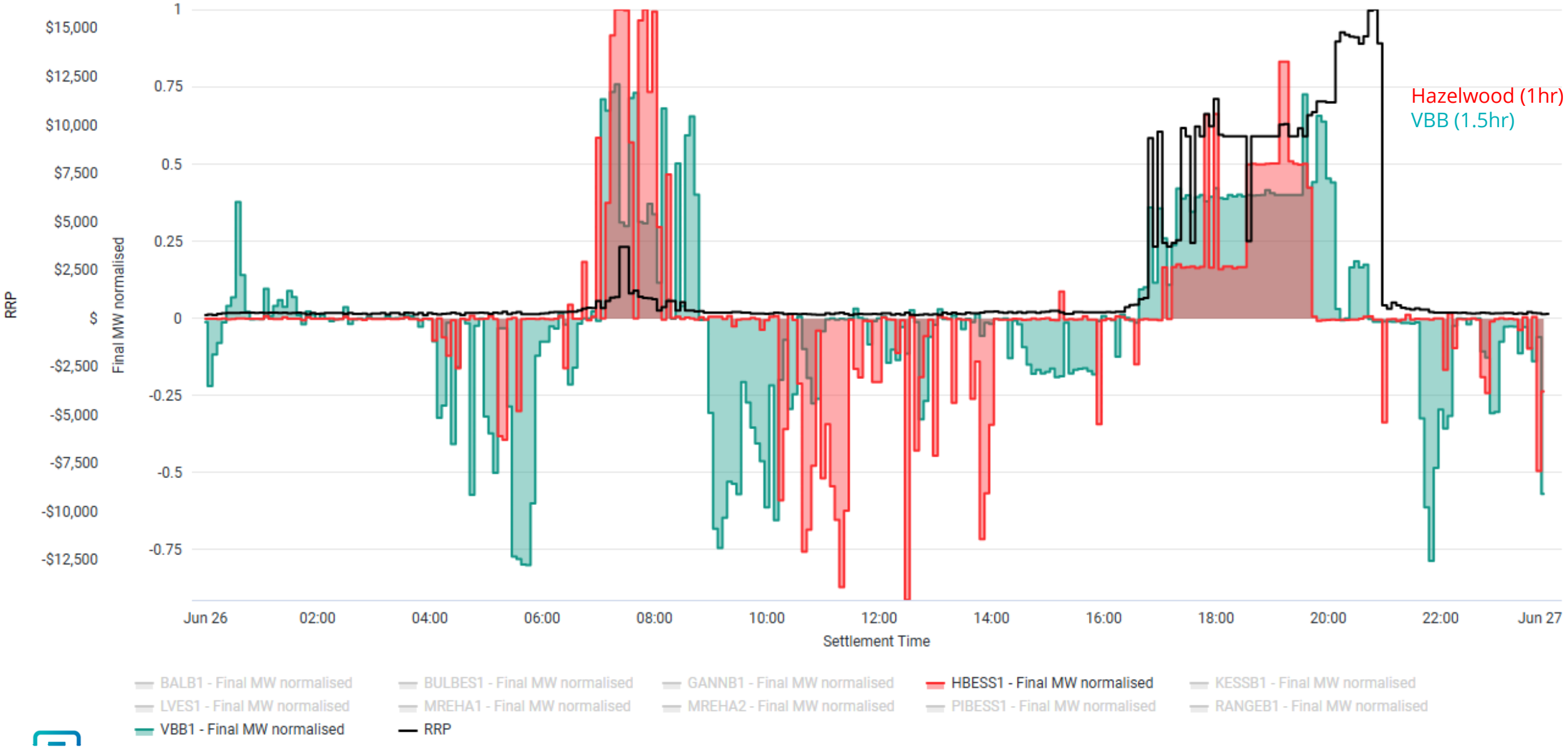

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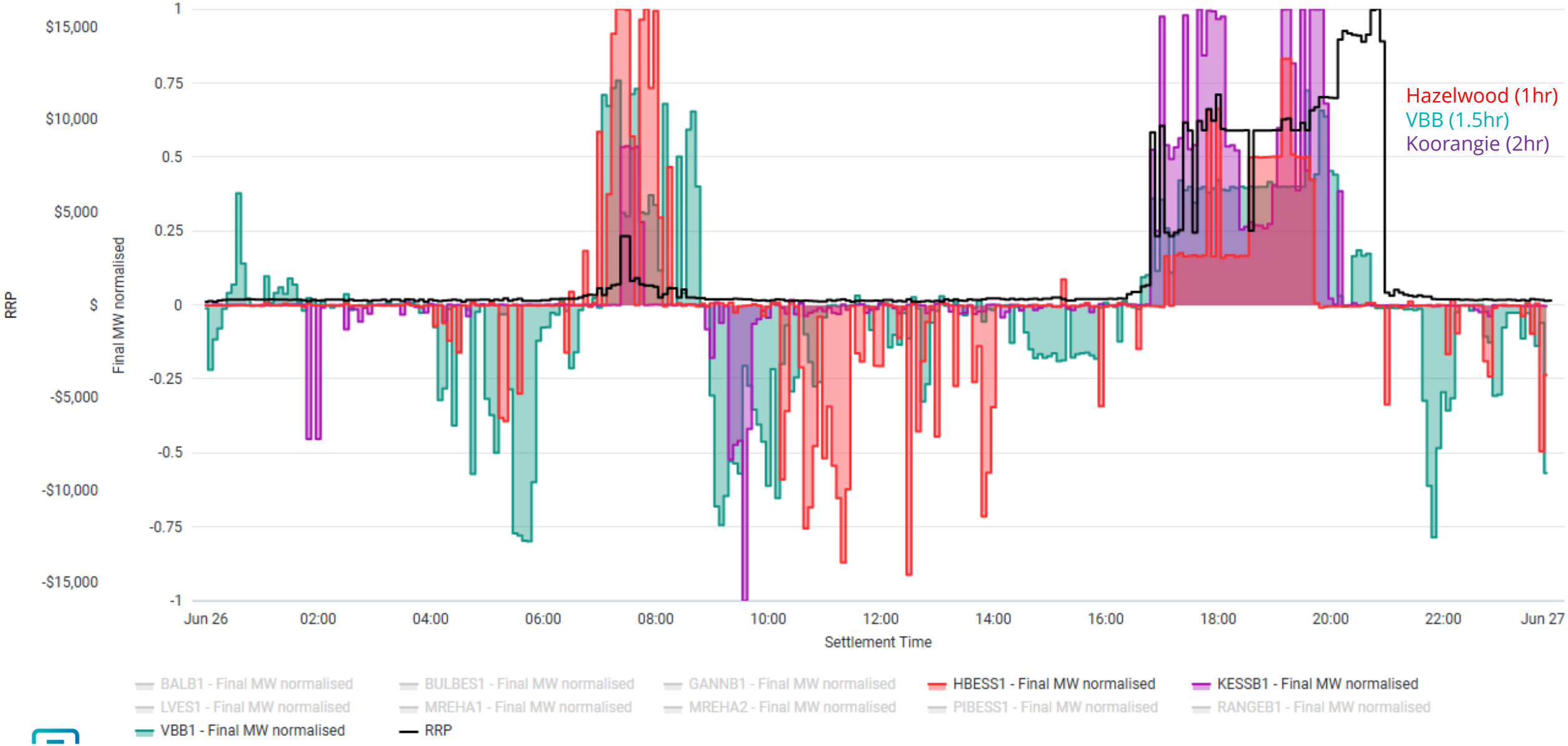

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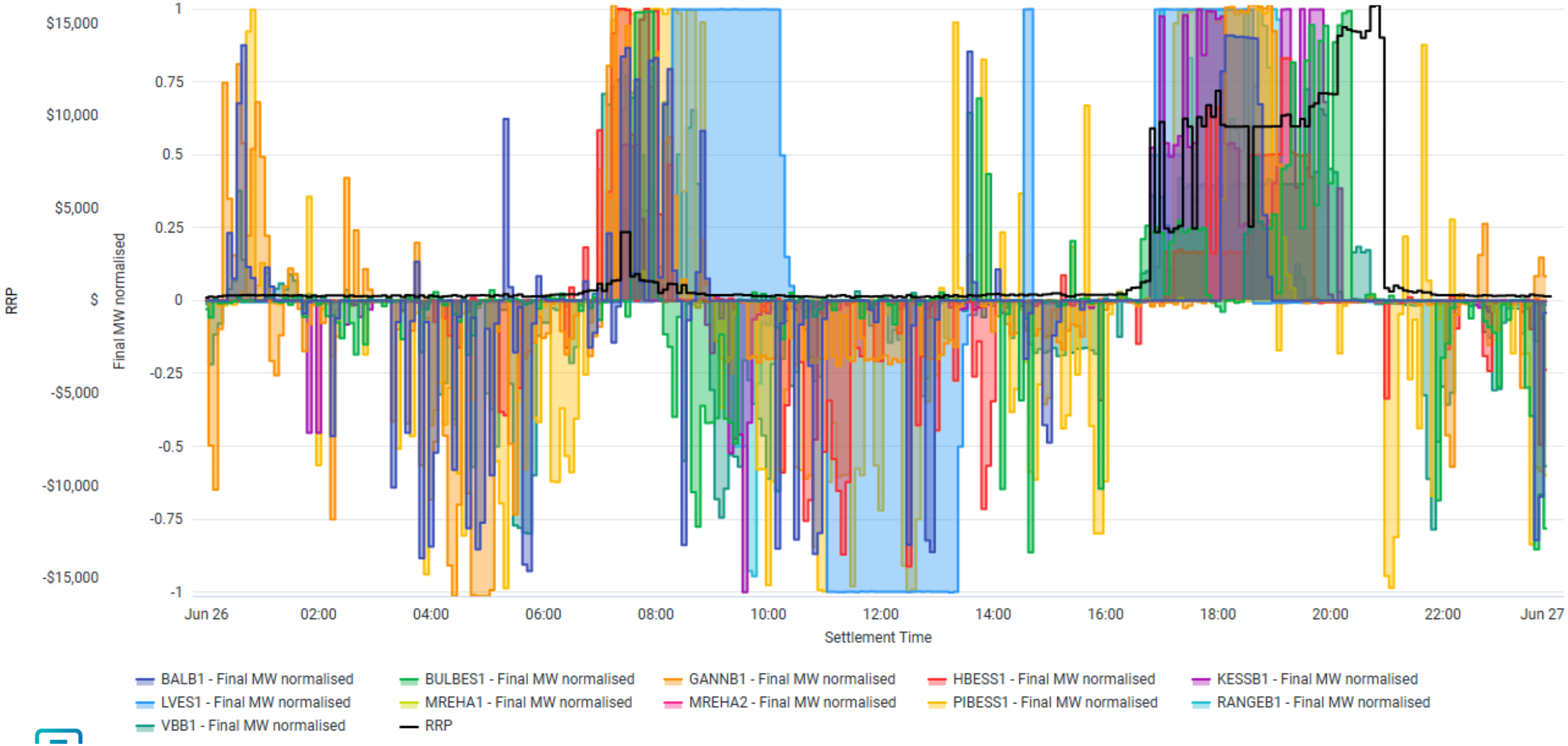

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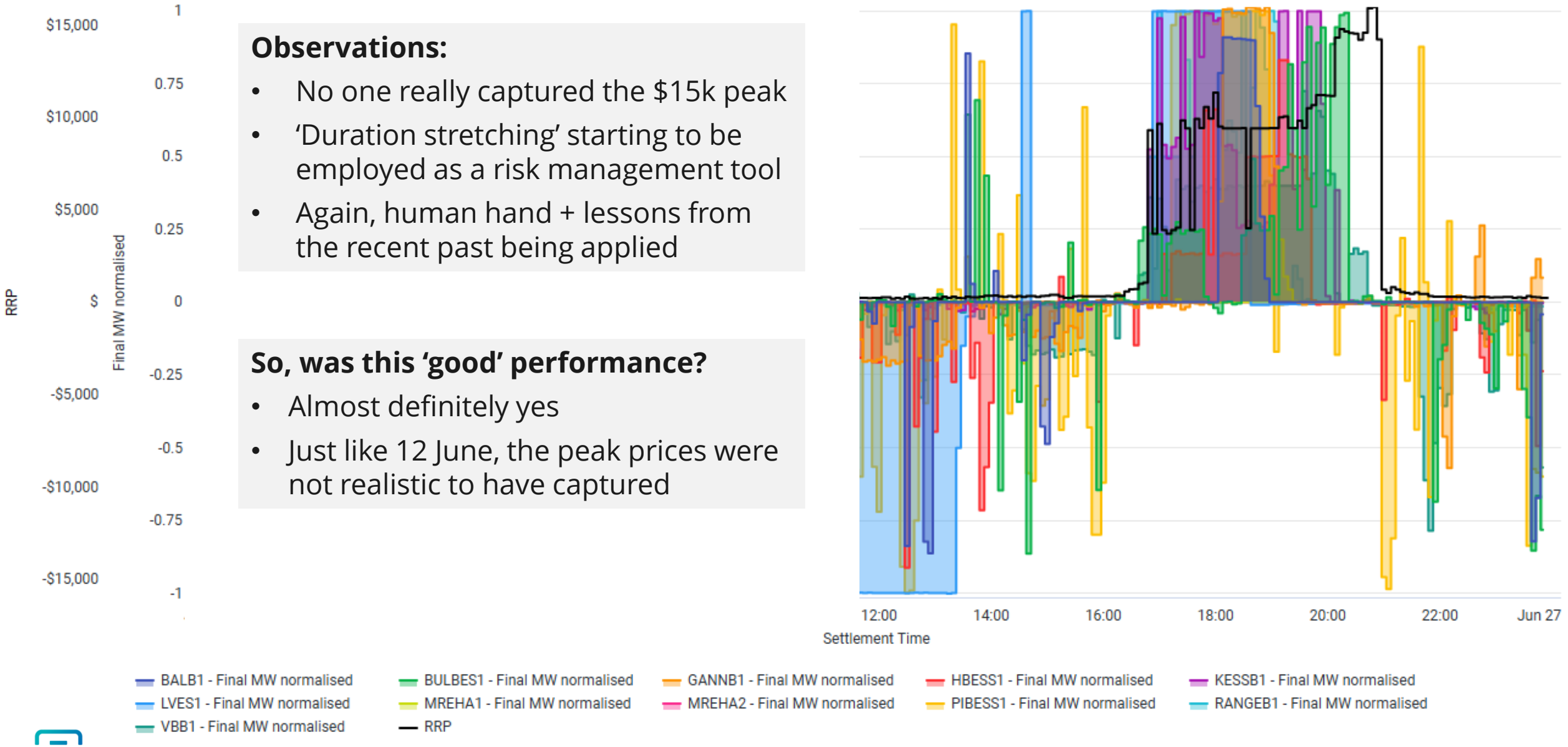
Observations:

- No one really captured the $15k peak
- ‘Duration stretching’ starting to be employed as a risk management tool
- Again, human hand + lessons from the recent past being applied

So, was this ‘good’ performance?

- Almost definitely yes
- Just like 12 June, the peak prices were not realistic to have captured



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Conclusions

- ✓ Lots of individual short-duration BESS pursuing own objectives = diverse, long-duration aggregate effect
- ✓ Market participants have varying risk appetites and risk/reward tolerances
- ✓ Behind every algorithm is an attentive spot trading team, adapting strategies
- ✓ ‘Duration stretching’ is an emerging risk hedging technique
- ✓ Performance benchmarking and ‘perfect’ metrics are imperfect on big days

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What tools & capabilities do you need, to perform on peak days?

Reliable, probabilistic price forecasting

Pre-defined risk management protocols

Flexible bidding system, with the right intervention levers

Deep, data driven support from bidding system supplier

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Thank You

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