

A wide-angle landscape photograph of the Aurora Reservoir. The water is calm and reflects the surrounding mountains and sky. The mountains are brown and green, with some snow on the peaks. The sky is blue with light clouds. The image is overlaid with a dark teal shape in the bottom left corner containing the title text.

Aurora Modeling Overview: Dispatch

September 2024

Additional Details

idahopower.com/irp

Our 20-Year Plan

Home > Energy and the Environment > Energy

Current Projects

Oregon Distribution System Plan

Our 20-Year Plan

IRP Questions and Responses

Educational Resources

Regional Electrical Plans

Huston to Gem

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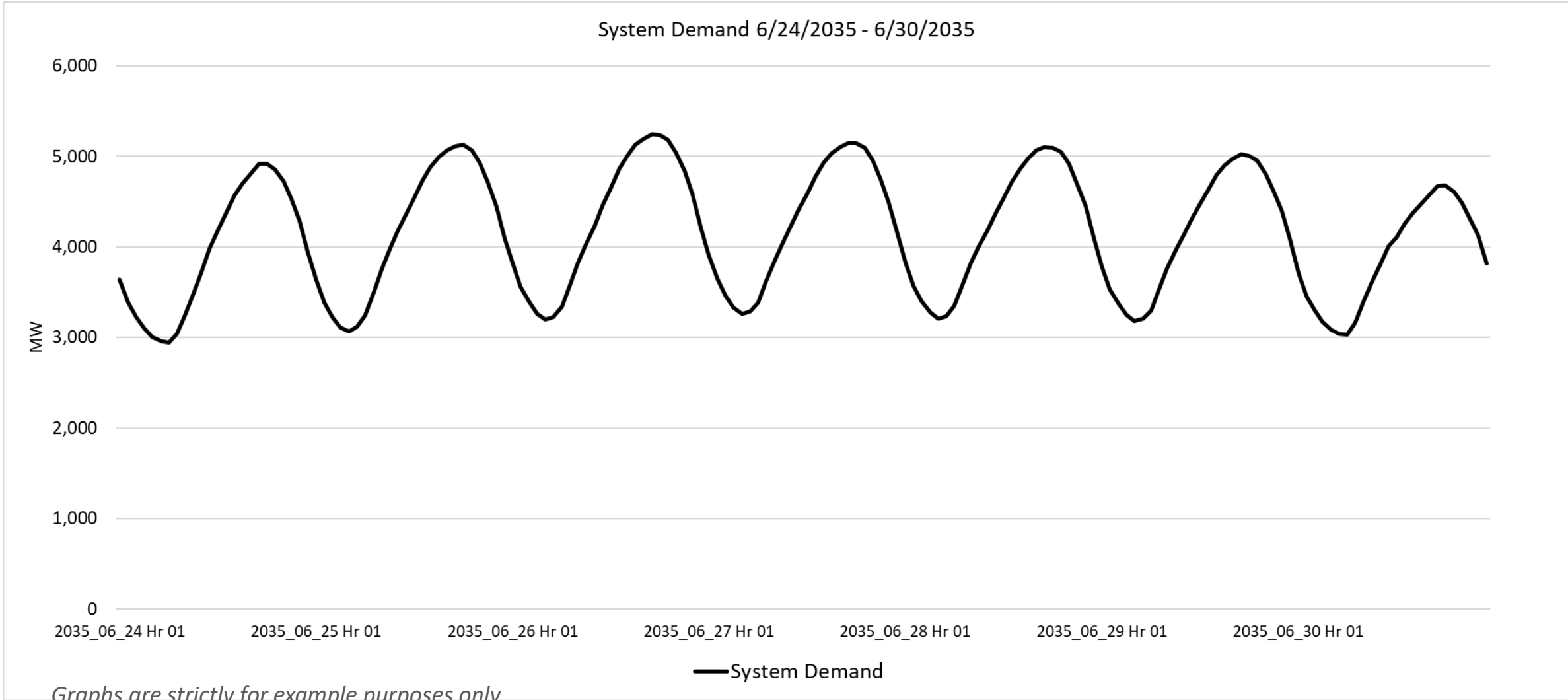
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[Video: AURORA Model Overview](#)

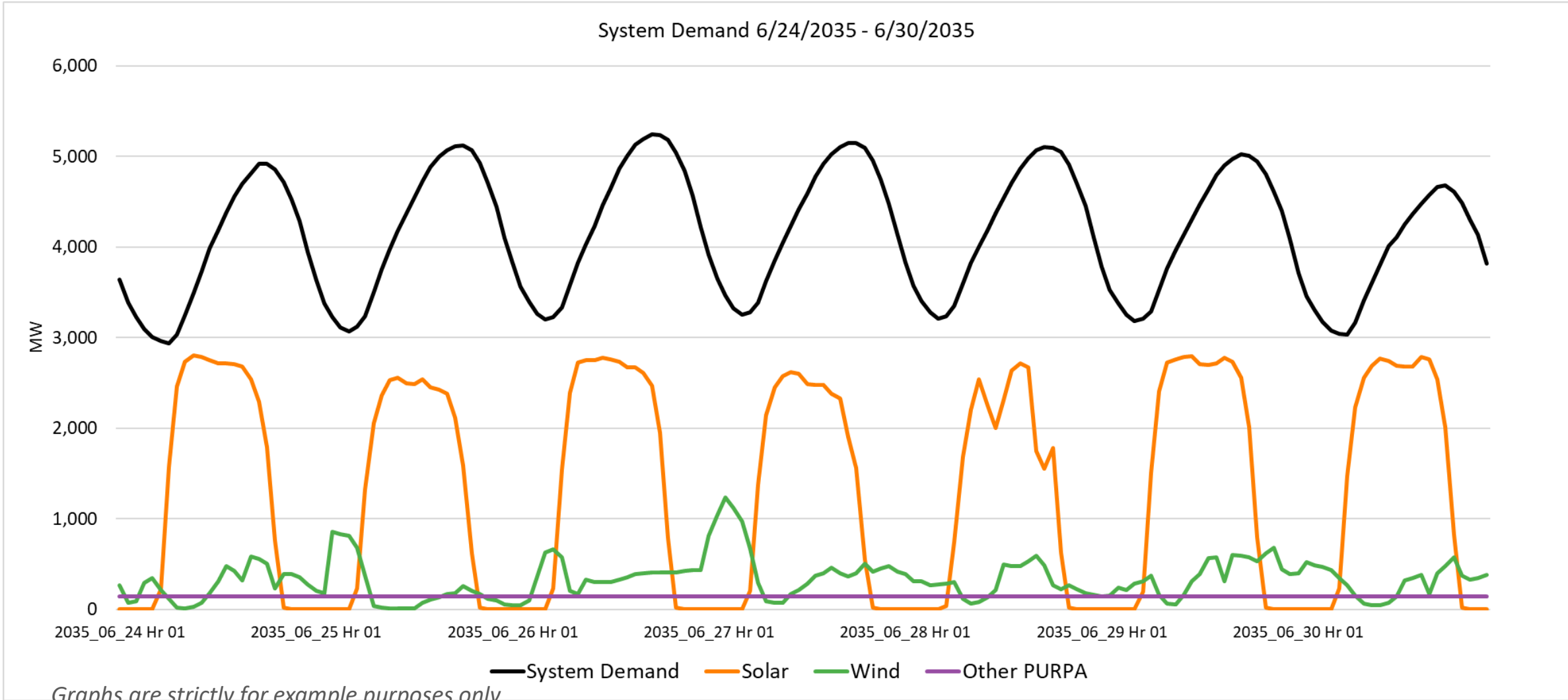
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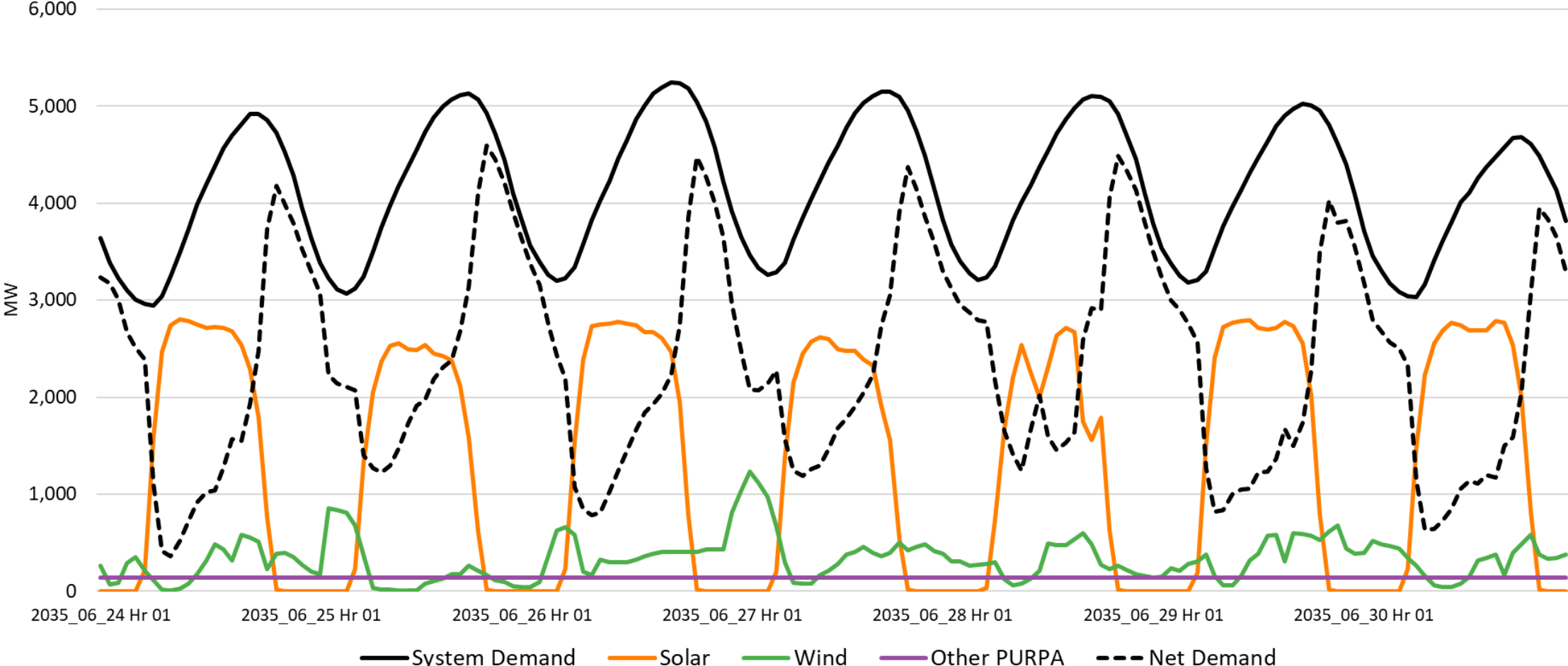
Dispatch Optimization Review



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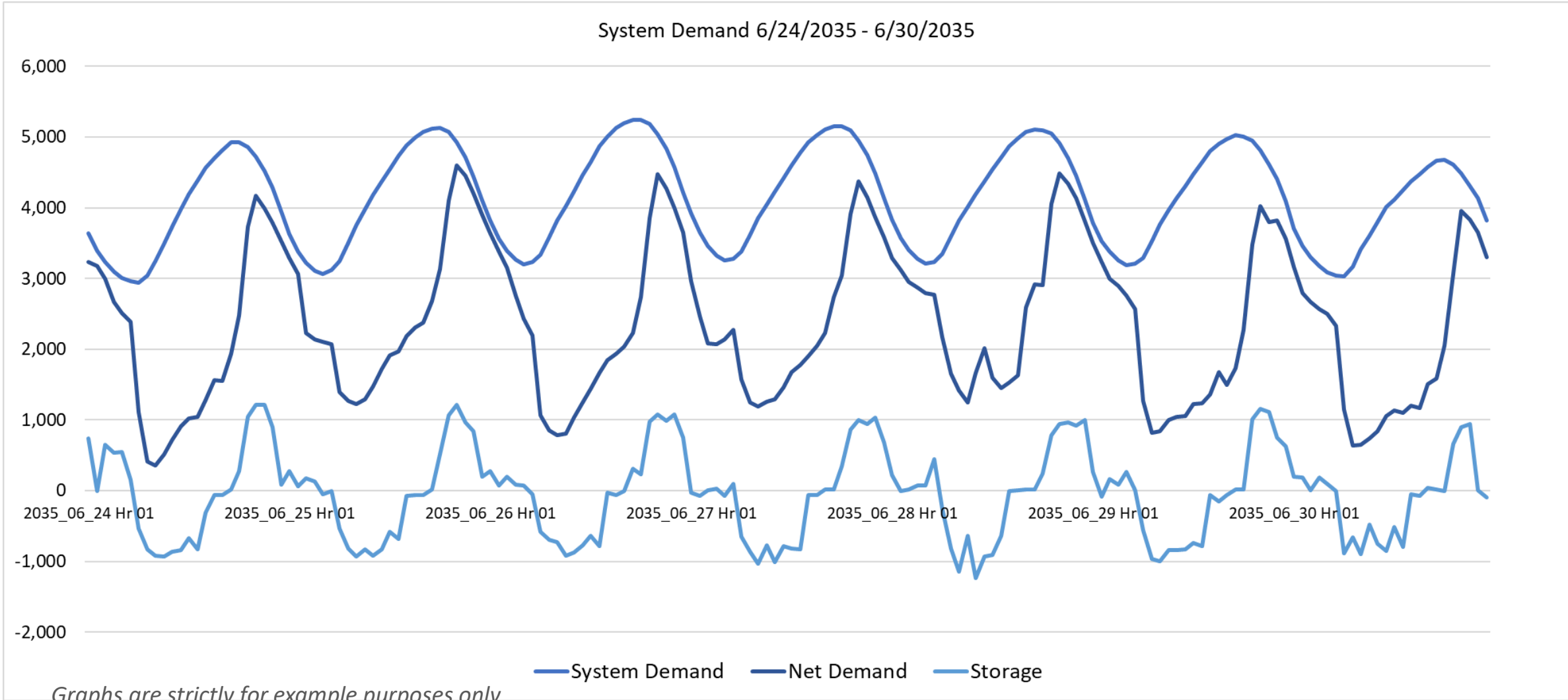


System Demand 6/24/2035 - 6/30/2035

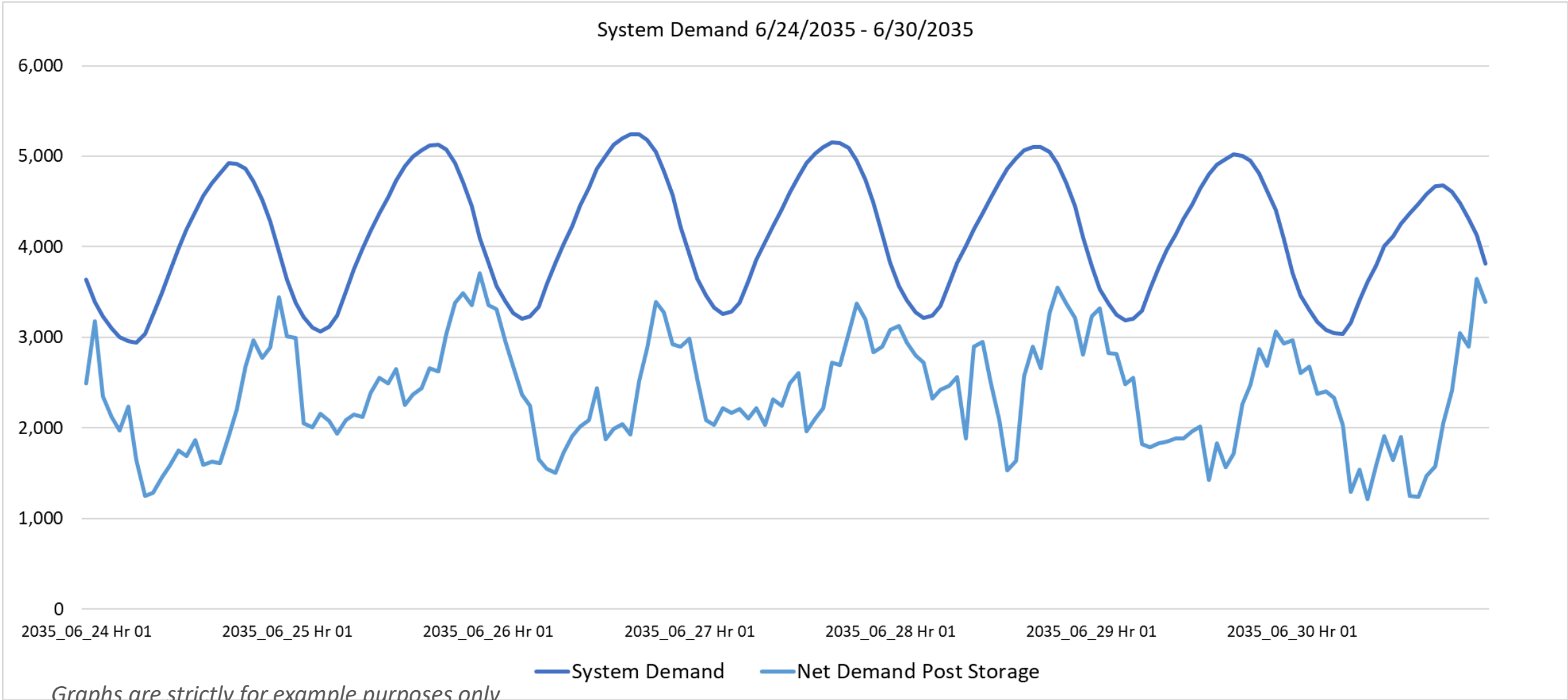


Graphs are strictly for example purposes only

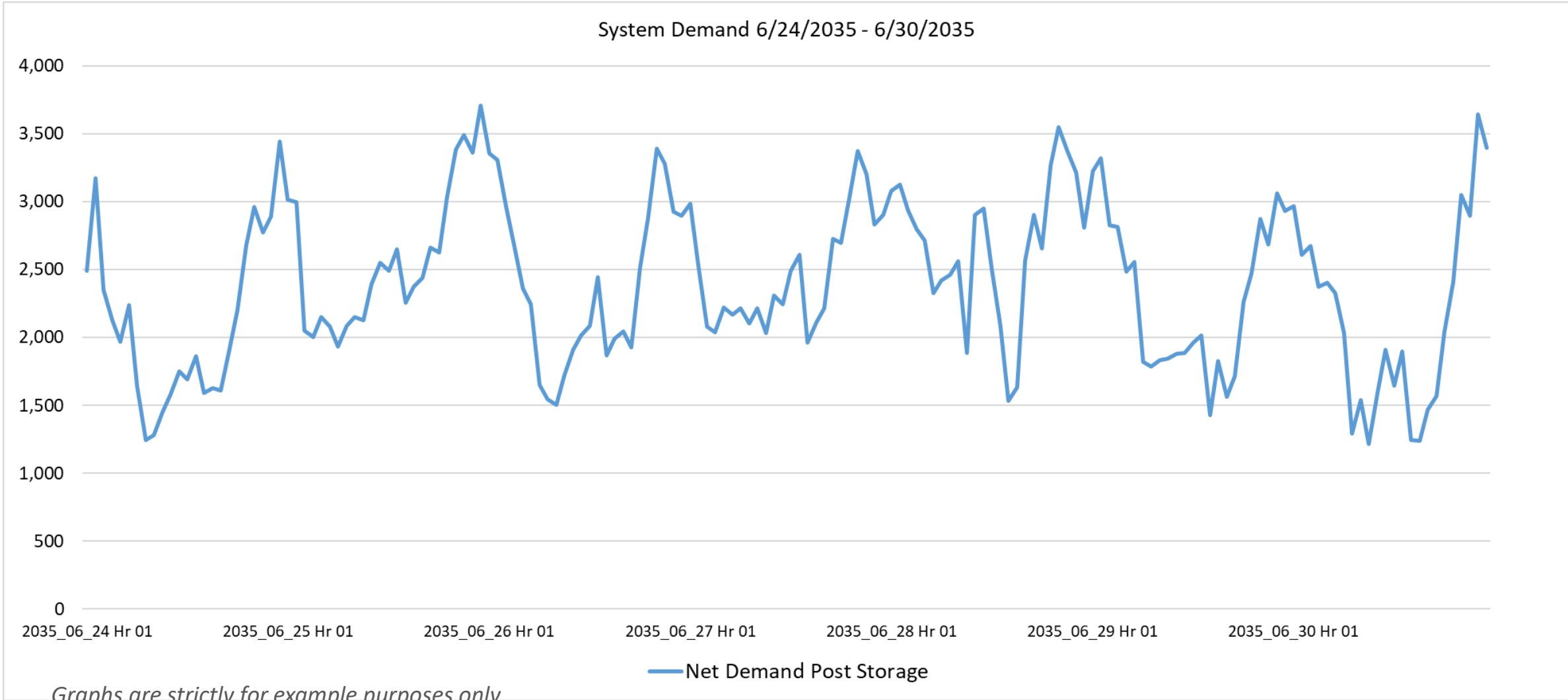
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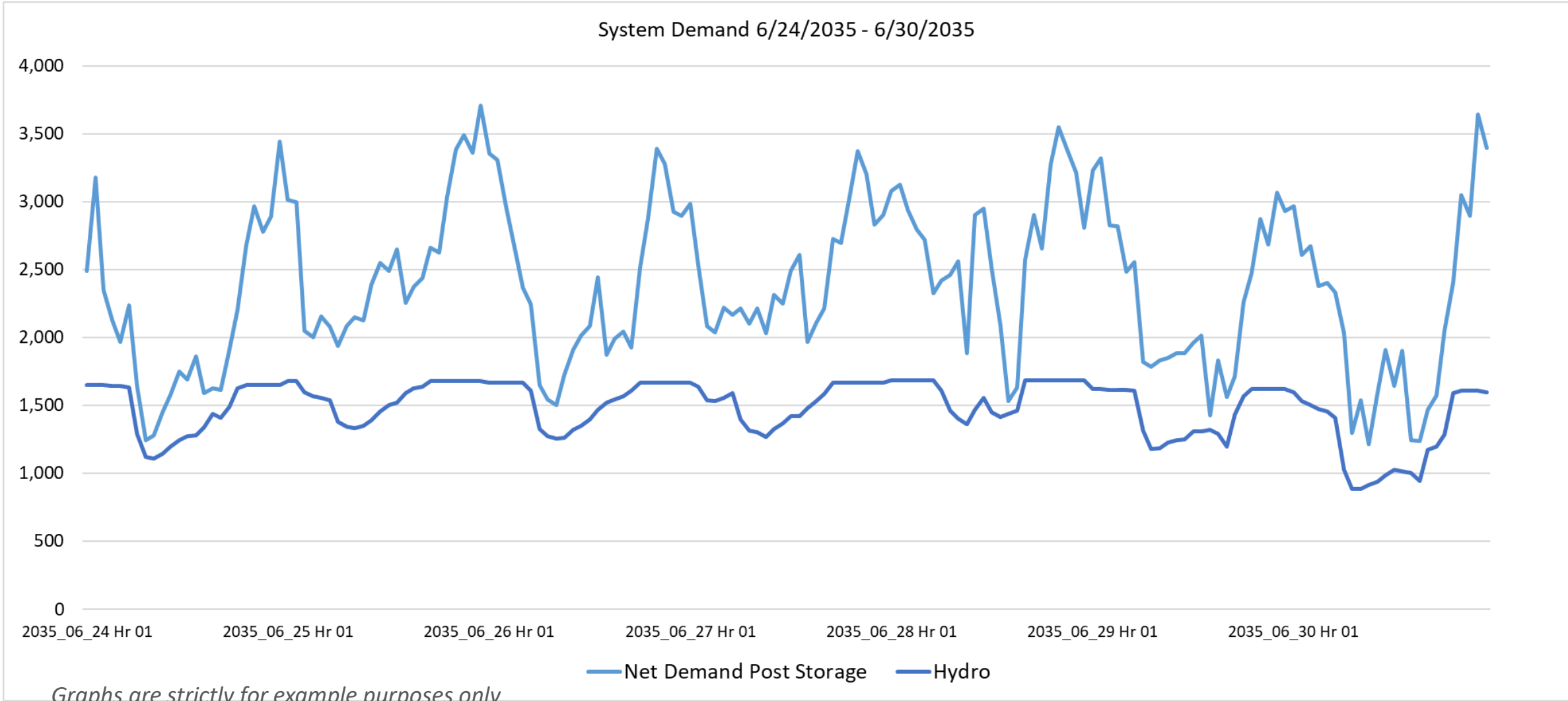
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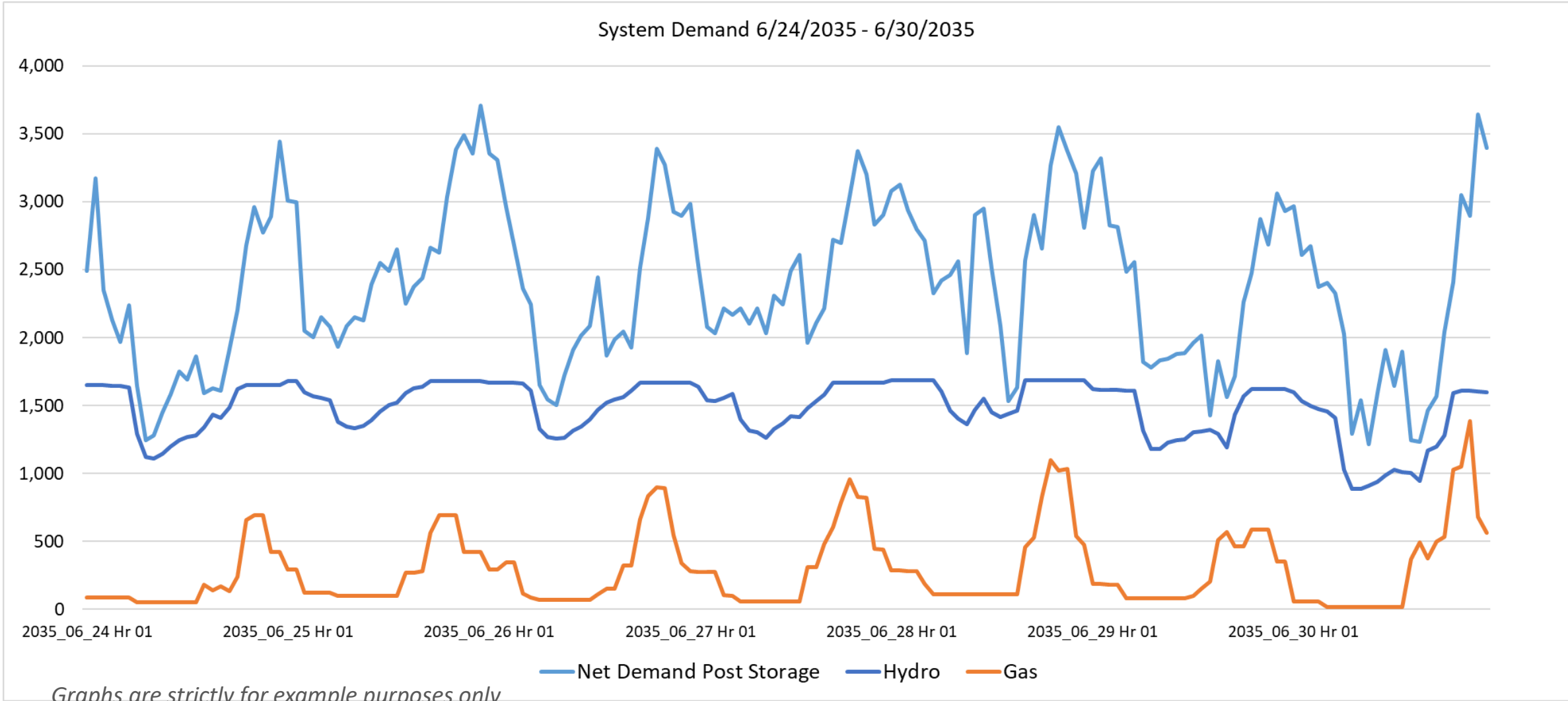
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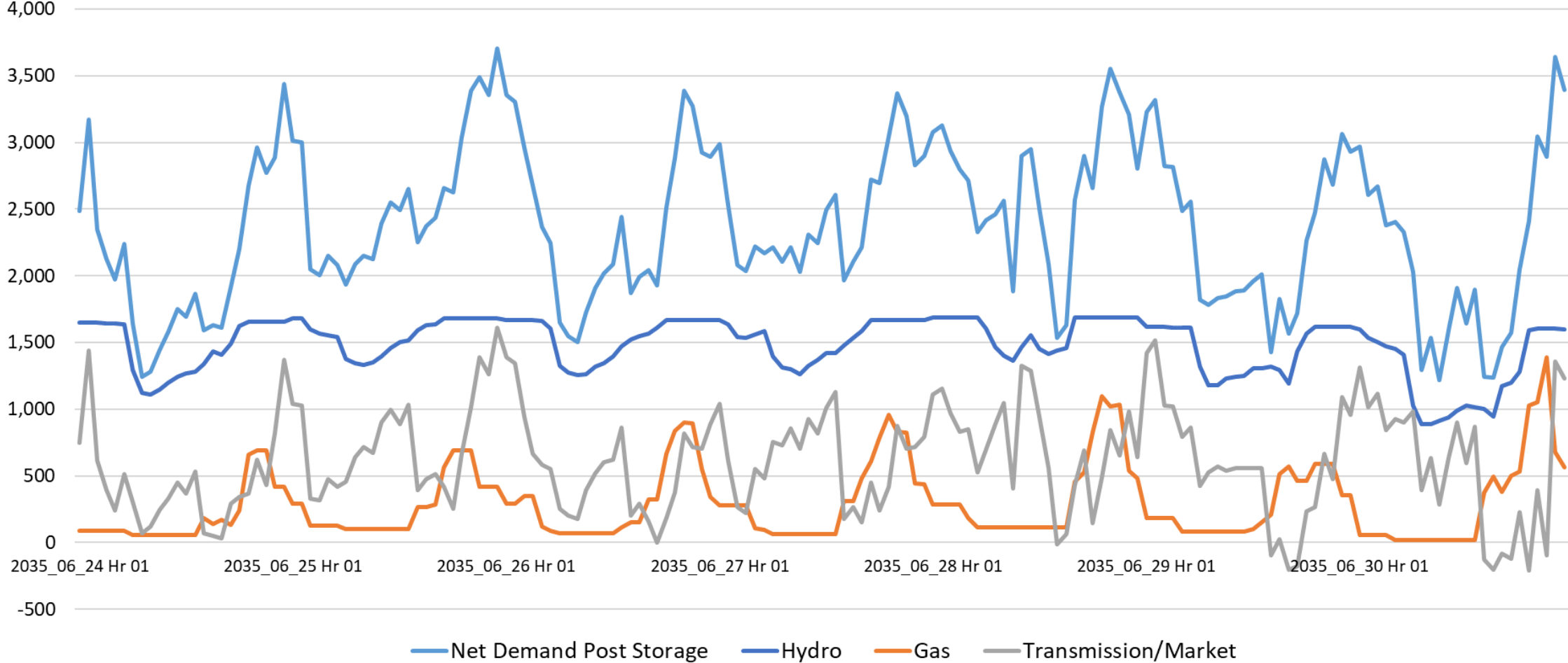
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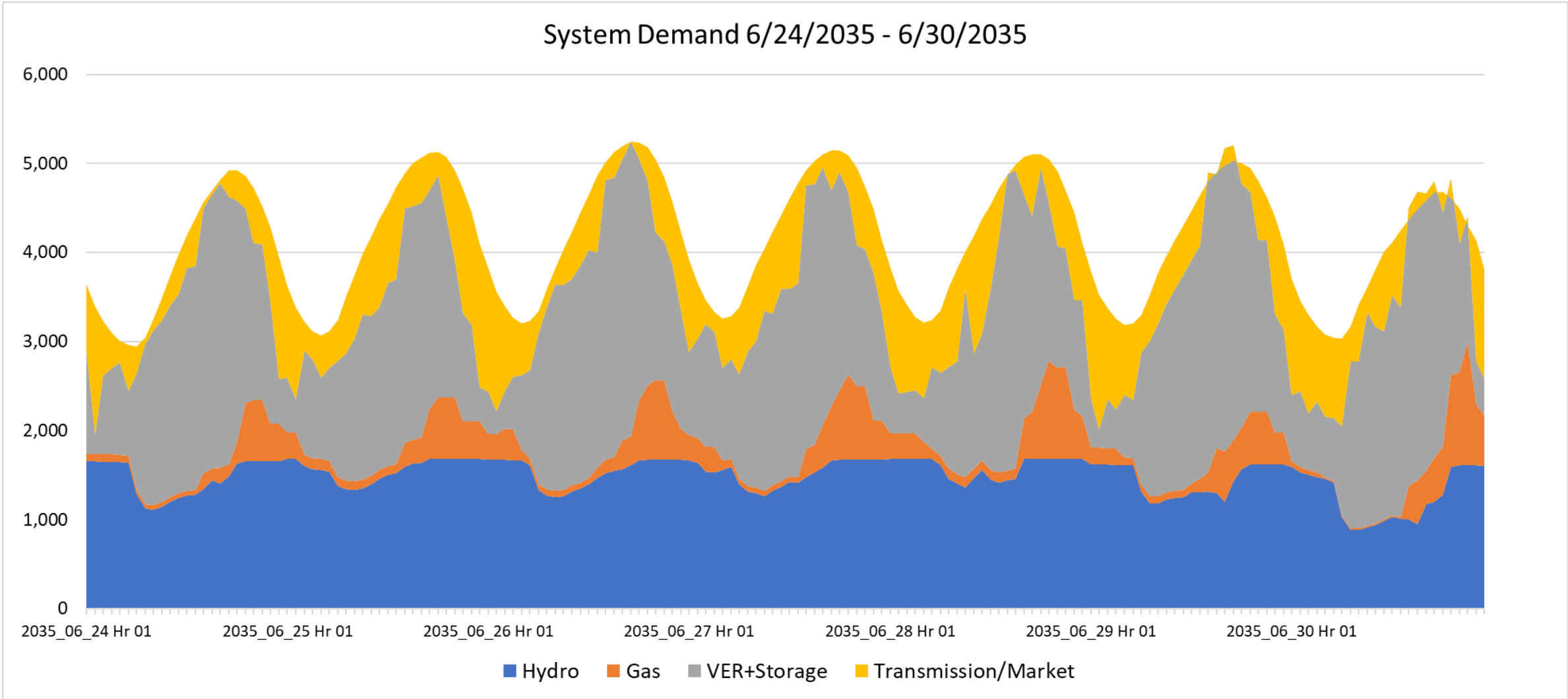
System Demand 6/24/2035 - 6/30/2035



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System Demand 6/24/2035 - 6/30/2035

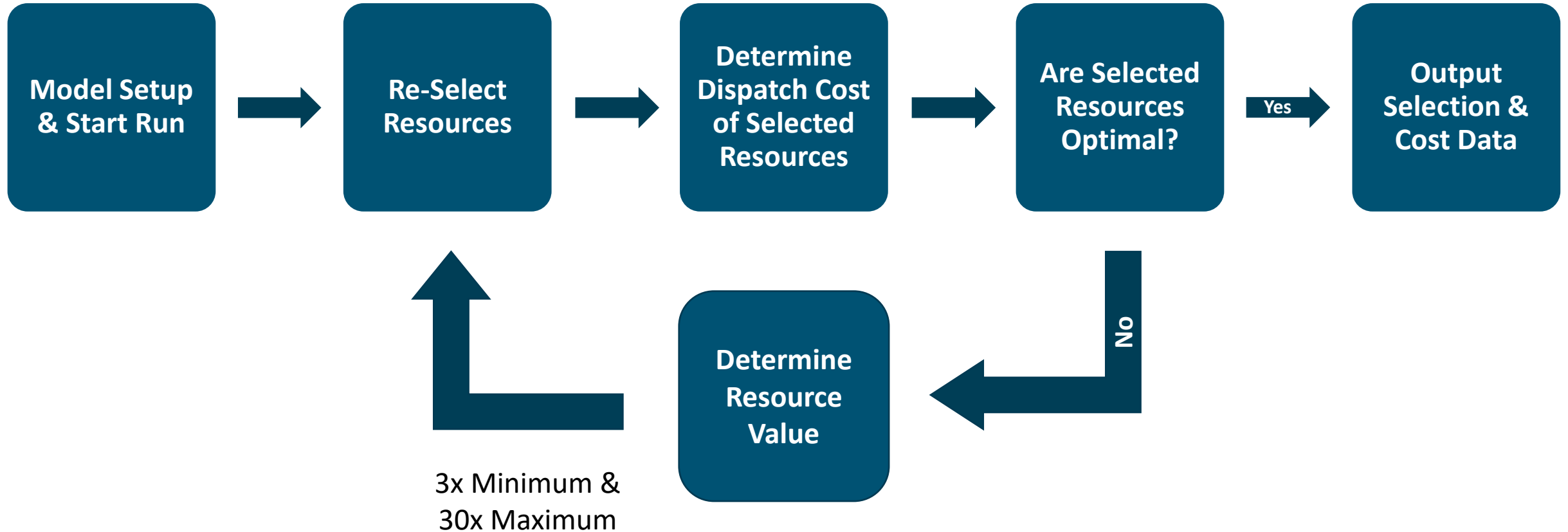


A wide-angle landscape photograph of the Aurora Reservoir. The water is calm and reflects the surrounding mountains and sky. The mountains are brownish-green with some snow on the peaks. The sky is blue with light clouds. The foreground is a dark blue gradient with white text.

Aurora Modeling Overview: Long Term Capacity Expansion (LTCE)

September 2024

Aurora LTCE Flow



What Does this Look Like in Practice?

Resource\Iteration	1	2	3	4	5	6	7
4hr	0	0	325	740	1,535	1,530	1,520
8hr	0	0	500	450	50	350	250
100hr	0	0	0	0	50	50	0
DR	0	100	60	40	20	20	40
EE	943	0	0	0	0	0	0
SCCT_NG	0	343	343	343	172	0	172
CCCT_NG	0	301	301	0	0	0	0
SCCT_H2	0	0	0	0	0	0	0
SMR	0	1,200	300	0	0	0	0
Pumped_Storage	0	0	0	0	0	0	0
Wind	0	400	1,200	1,200	1,200	1,200	1,200
Solar	0	900	900	900	900	900	900
Biomass	0	0	30	0	0	0	0
Geothermal	0	30	60	60	60	60	30

Numbers in table are strictly for example purposes only & not representative of any particular portfolio

What is Aurora Optimizing in English?

Minimizing System Cost on an NPV Basis

- Generation
 - Fixed Costs
 - Dispatch Cost
 - ✓ Variable O&M
 - ✓ Fuel
 - ✓ Starts
 - ✓ Storage Round Trip Losses
- Transmission
 - Wheeling & Losses
 - ~~Fixed Costs~~

Subject to the Following Constraints

- Load = (Generation – Losses) in All Hours
- Generator Characteristics
 - Min/Max Capacity, Flexibility, Forced Outage, Fuel Limits, Emissions, etc.
- Transmission Capacities
- Reliability & Ancillary Services
- Resource Selection Limits