

Market Monitoring Unit

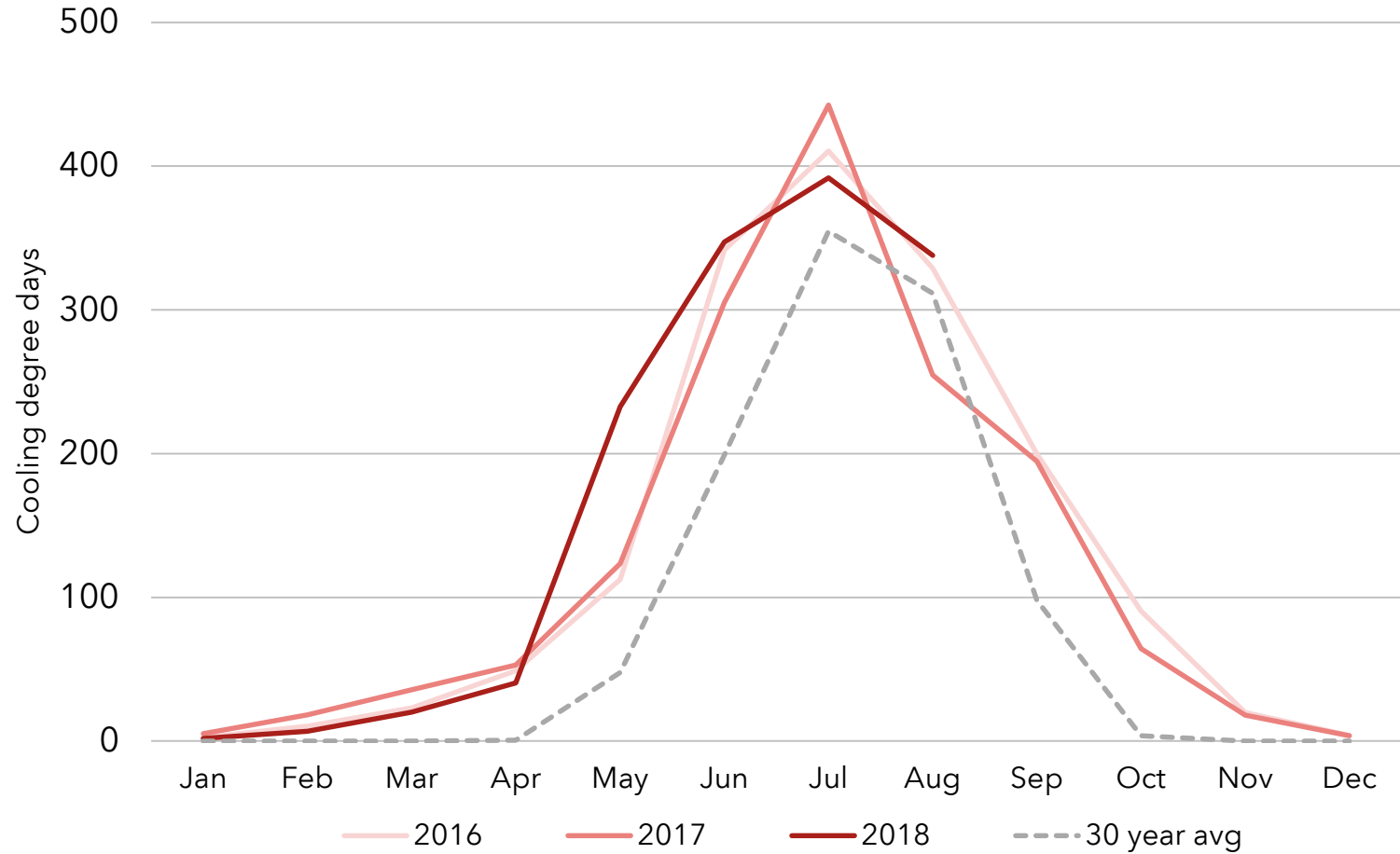
Summer 2018

Quarterly Report

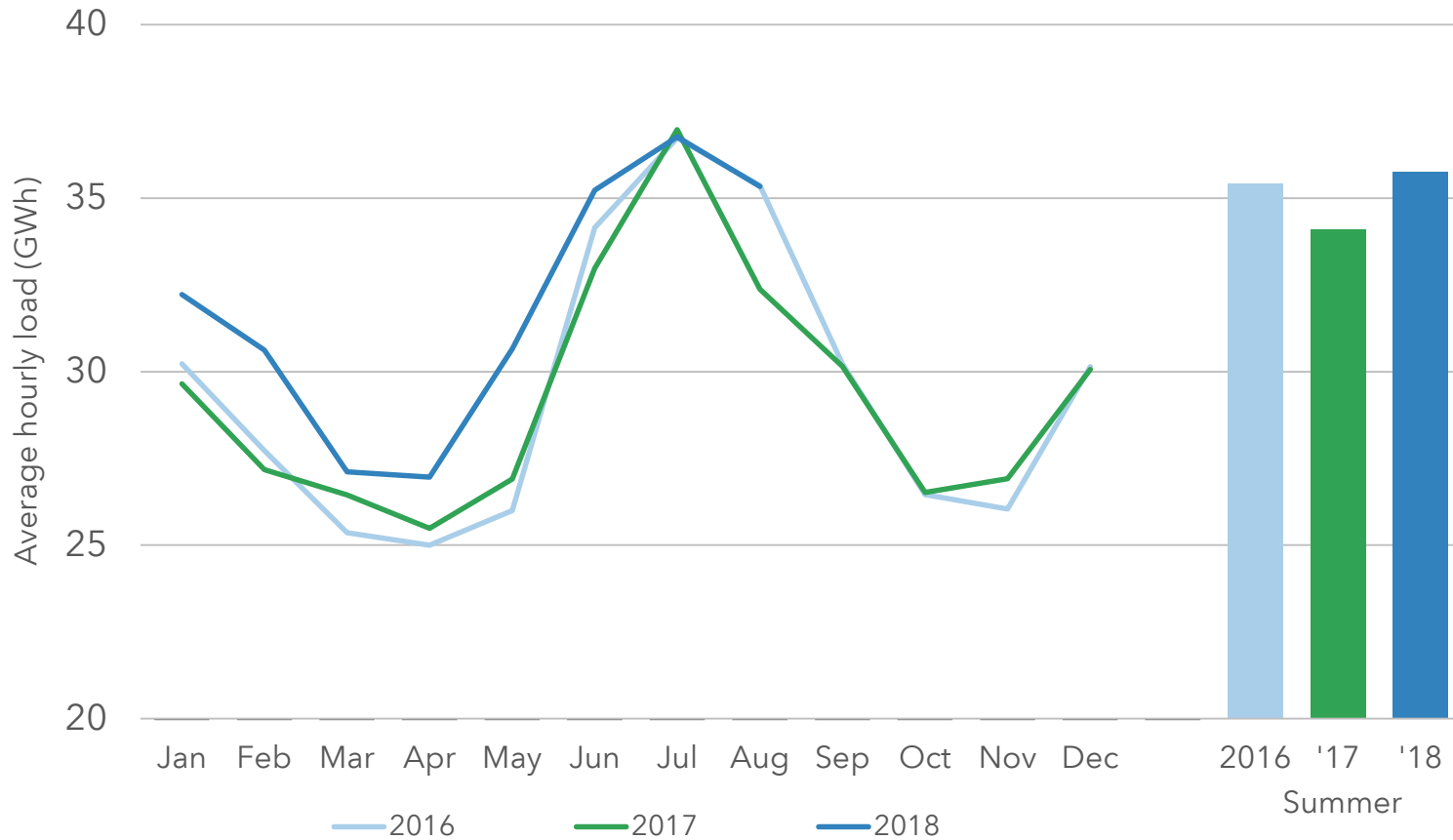
Summer 2018 highlights

- Continued low energy prices and gas costs
- Overall congestion in the footprint has declined
- KCPL/Weststar merger
- Manual commitment review

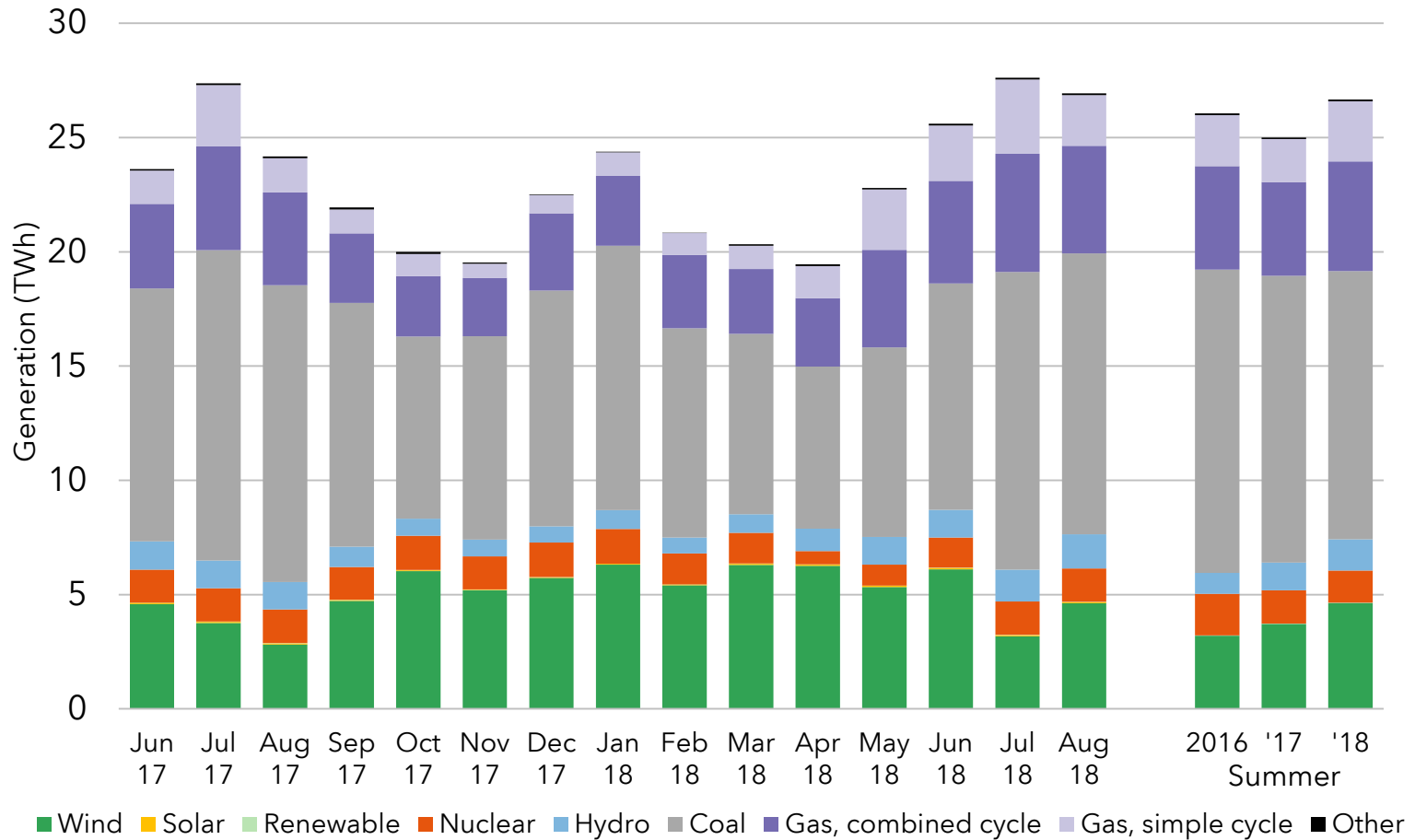
Continued above average temperatures



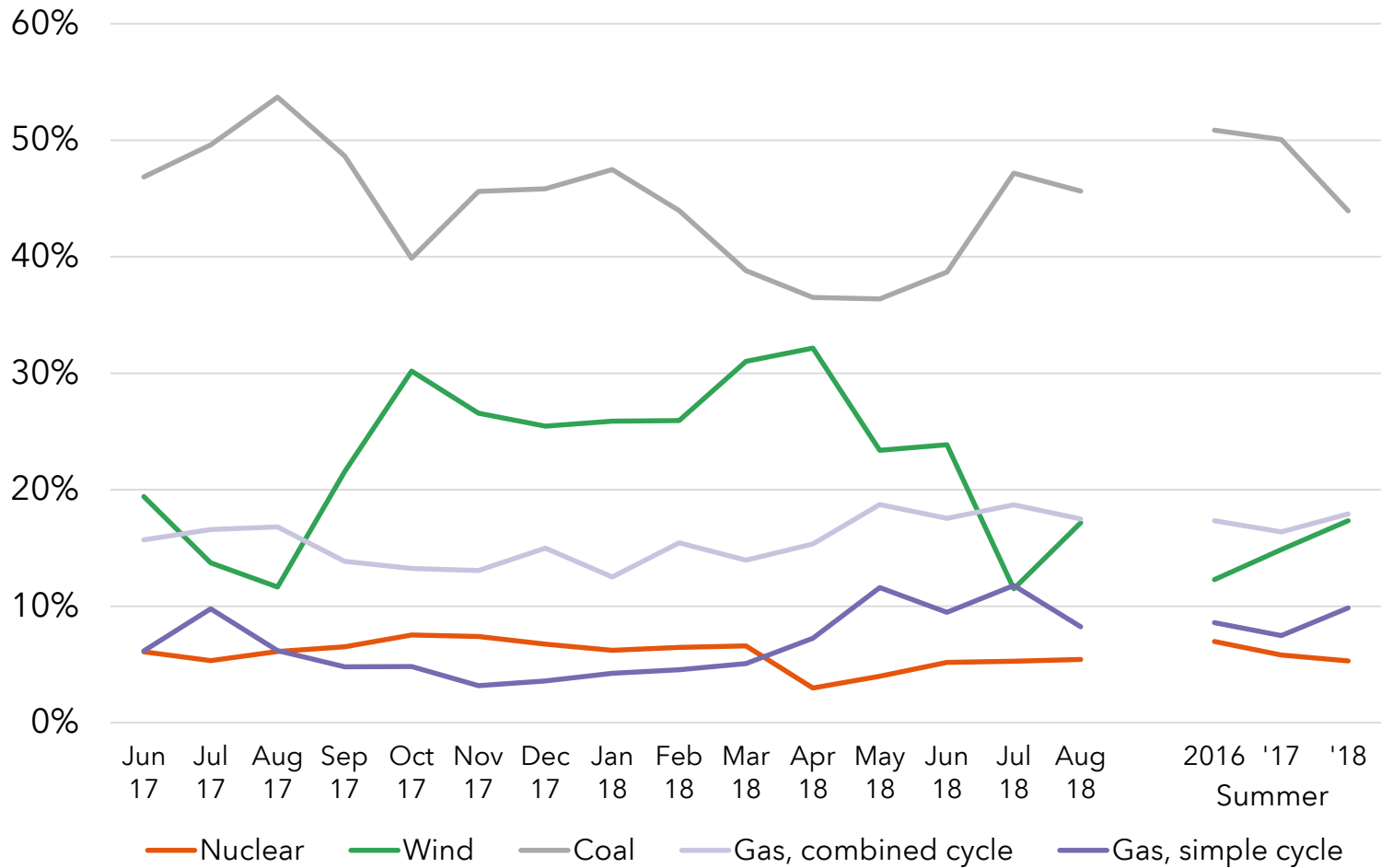
Overall, summer load higher



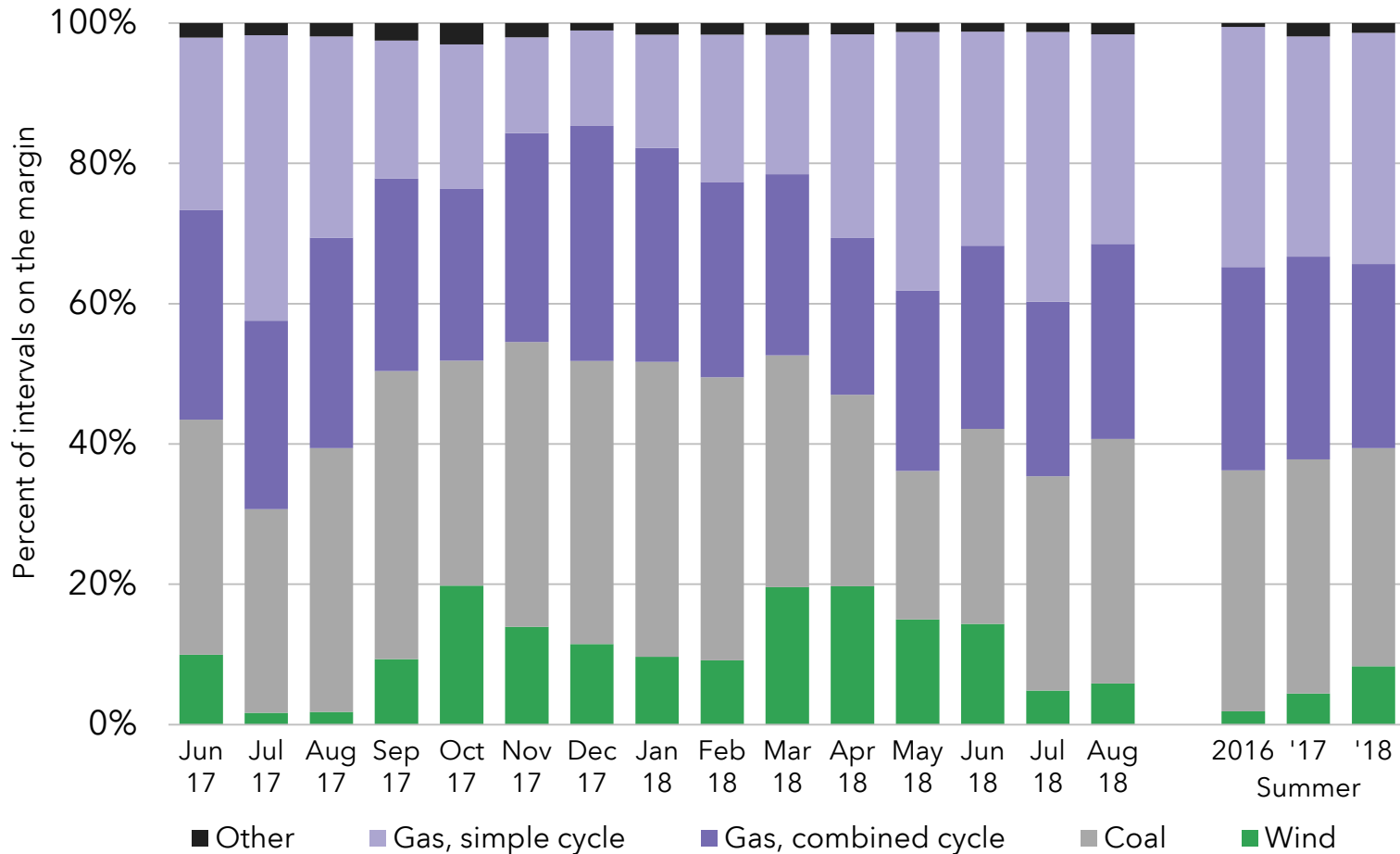
Generation follows same pattern



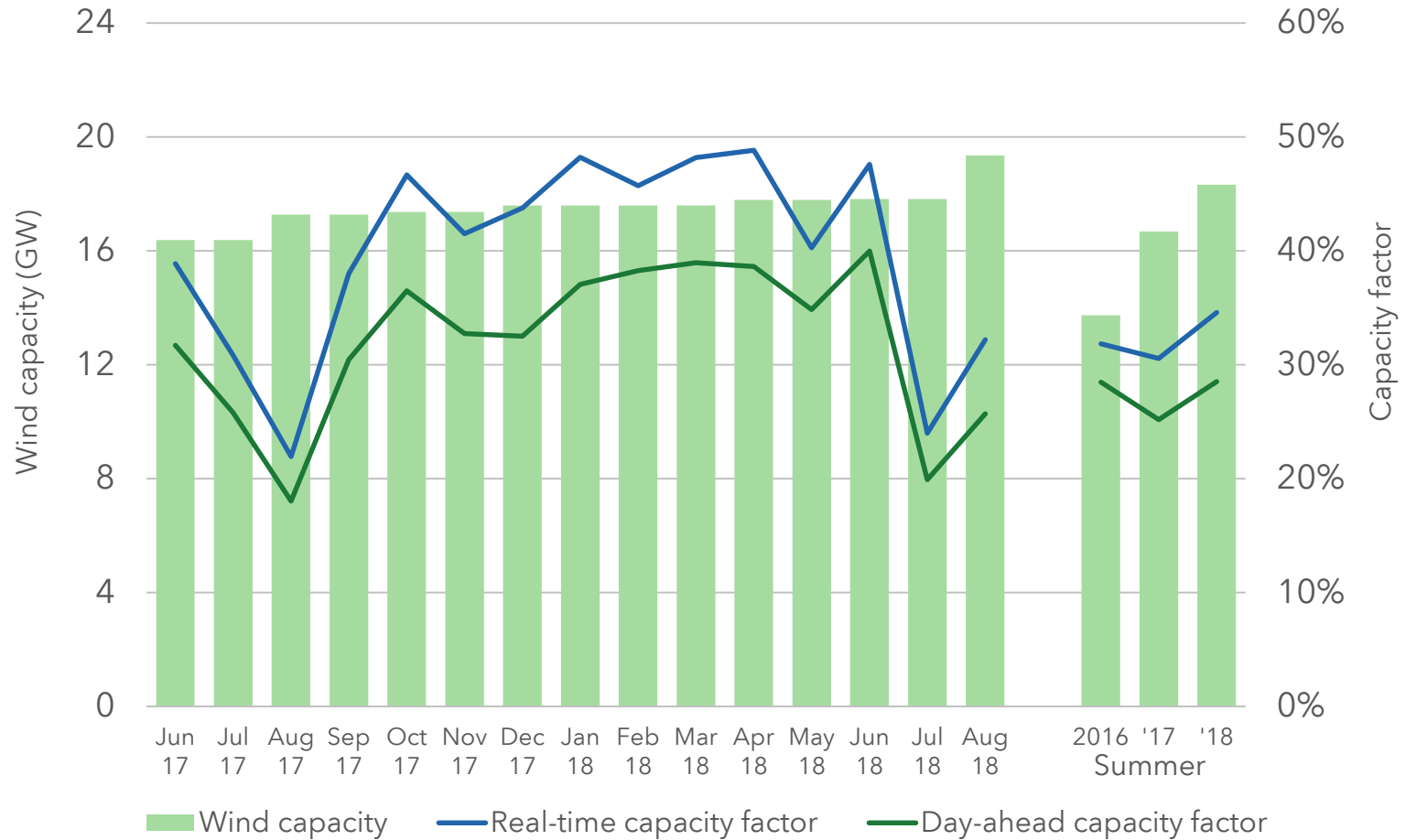
Coal generation declining, while wind generation is growing



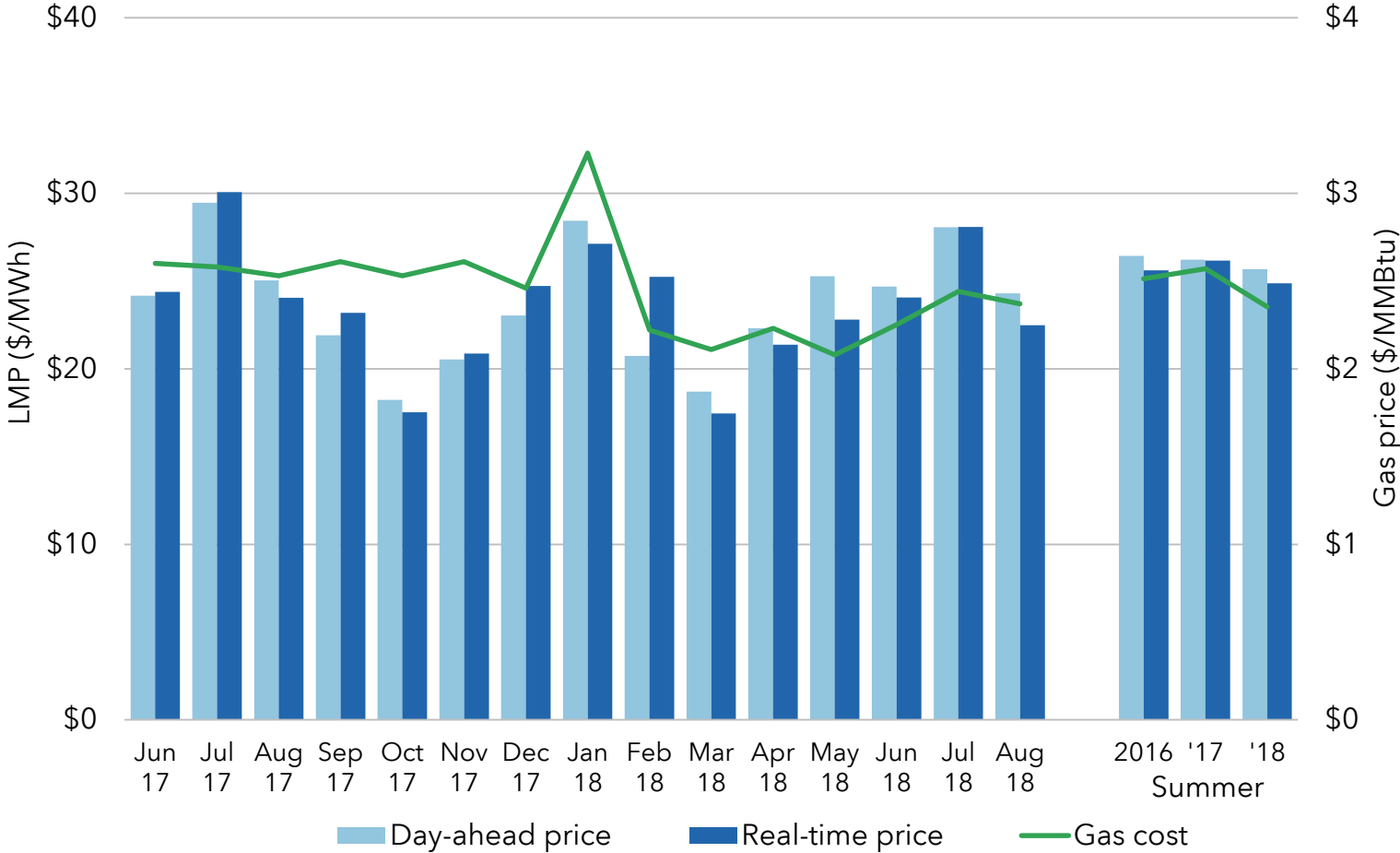
Wind setting prices more frequently in real-time



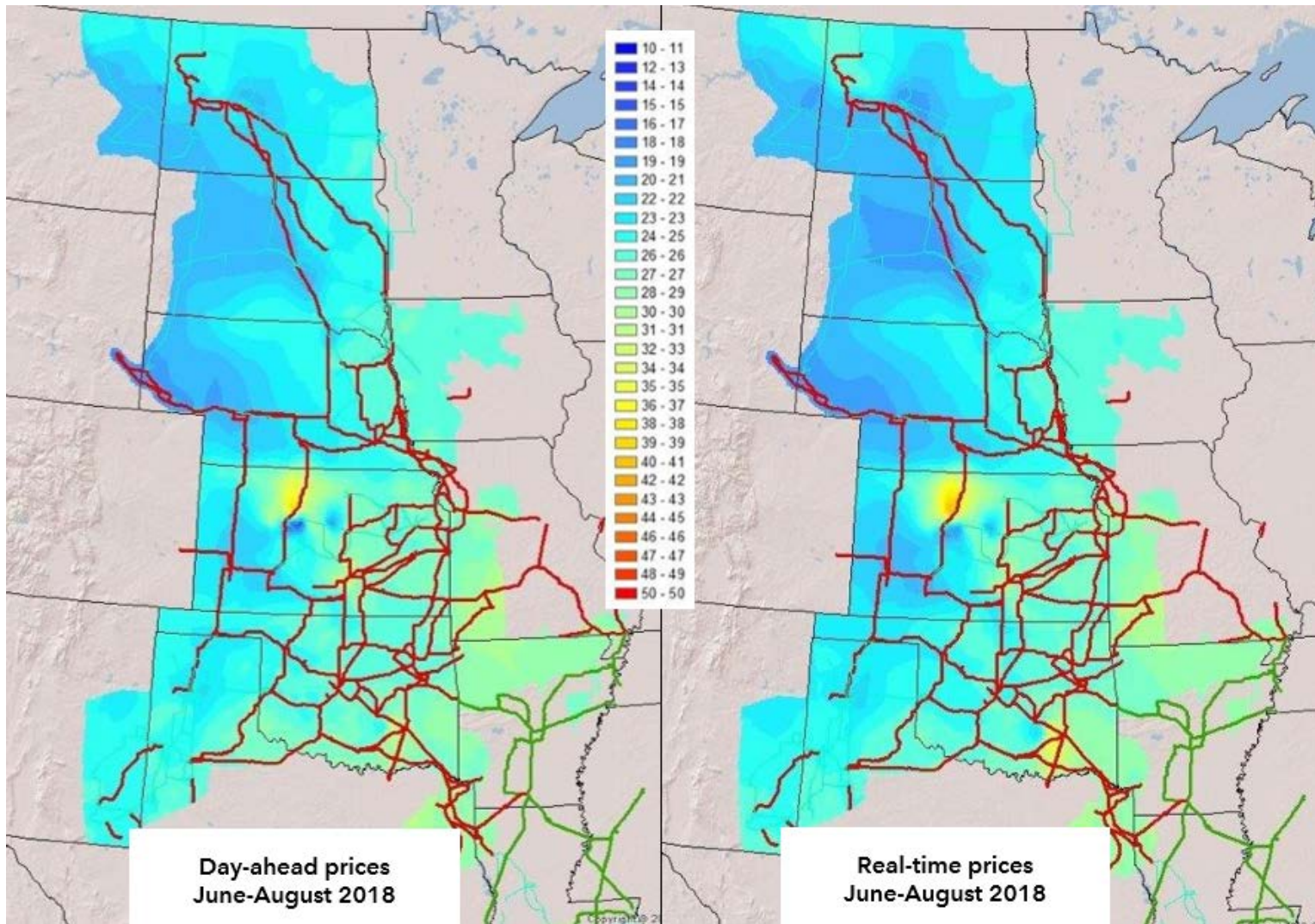
Wind capacity continues to grow



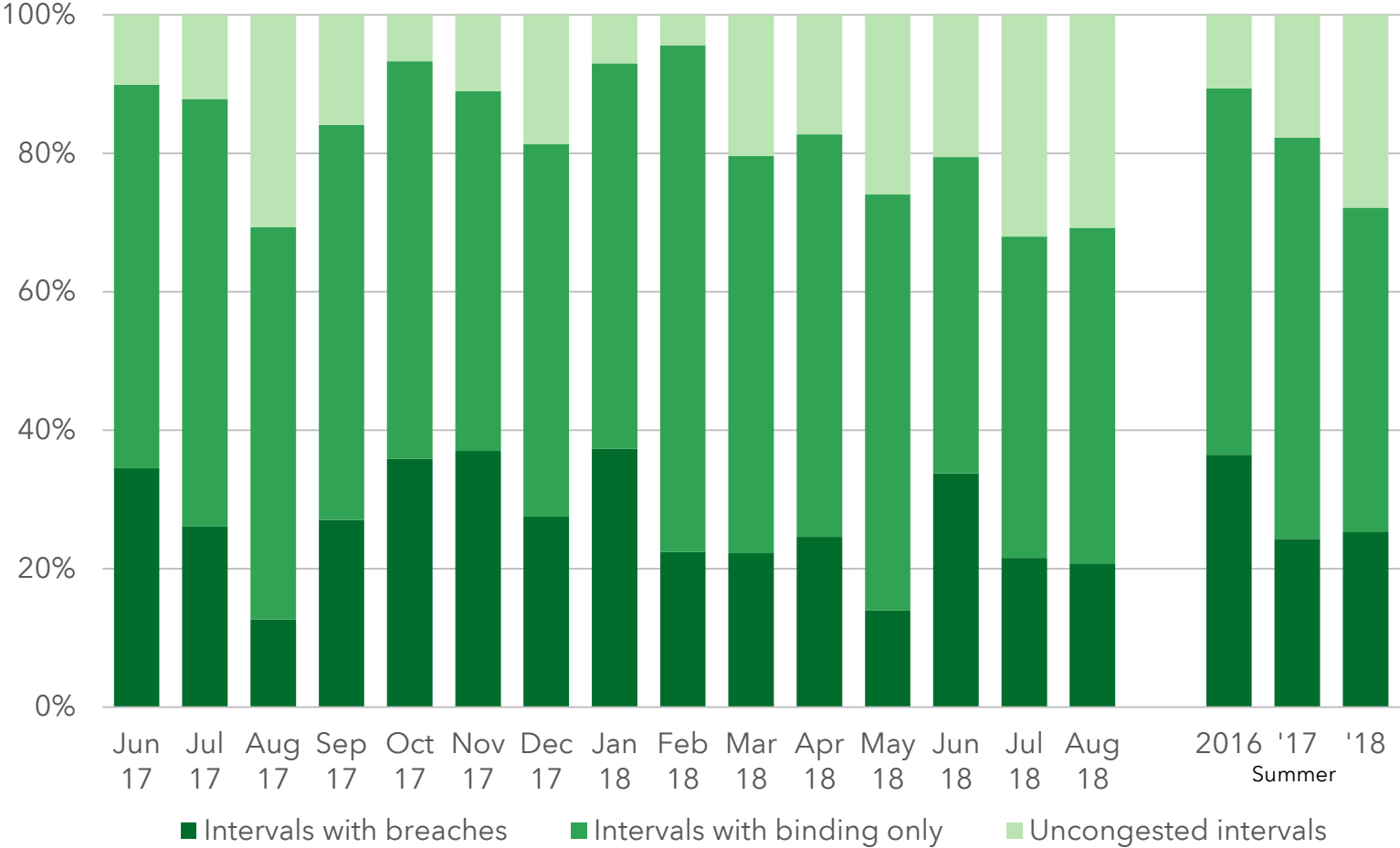
Prices remained low



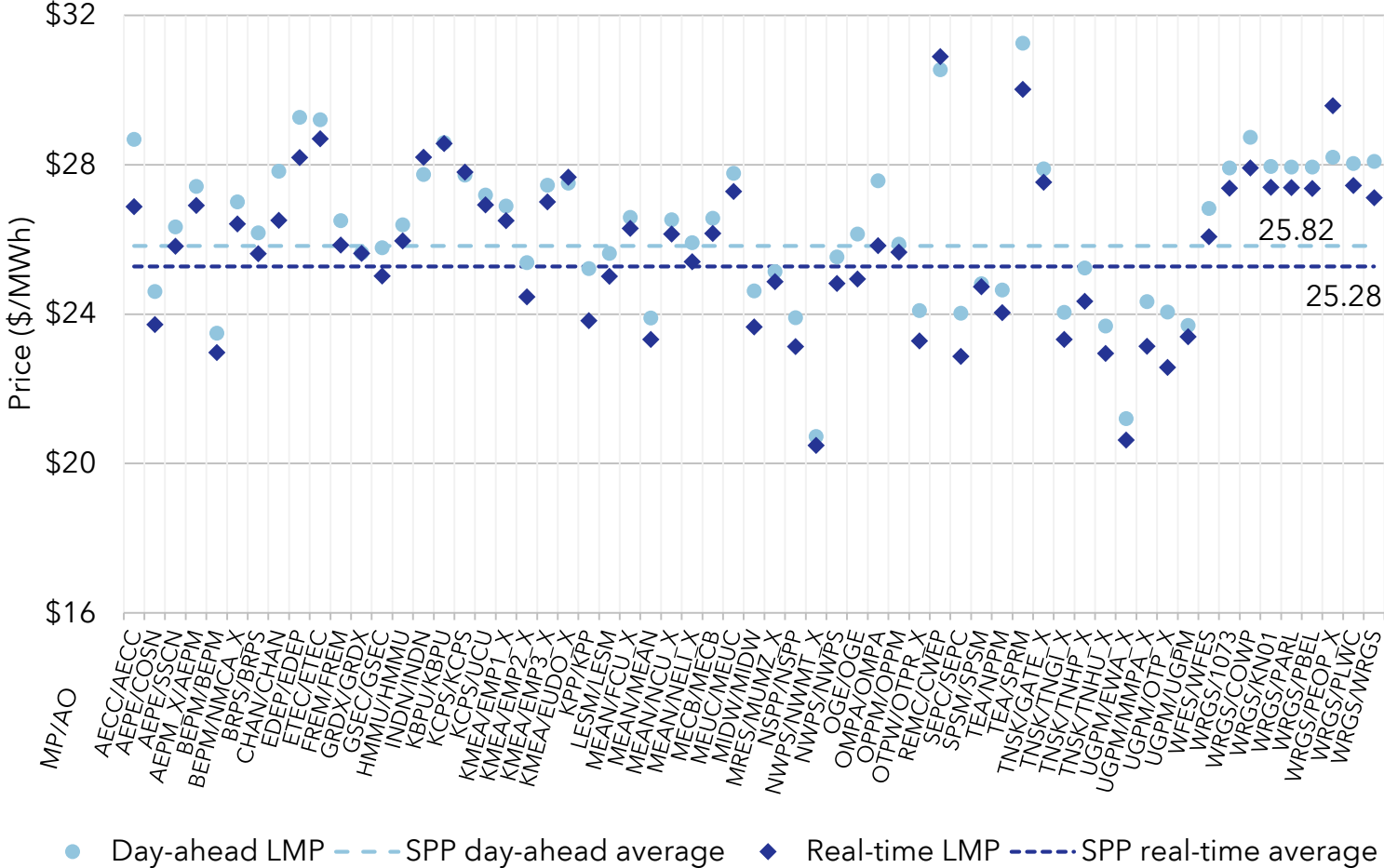
Congestion pattern similar between markets



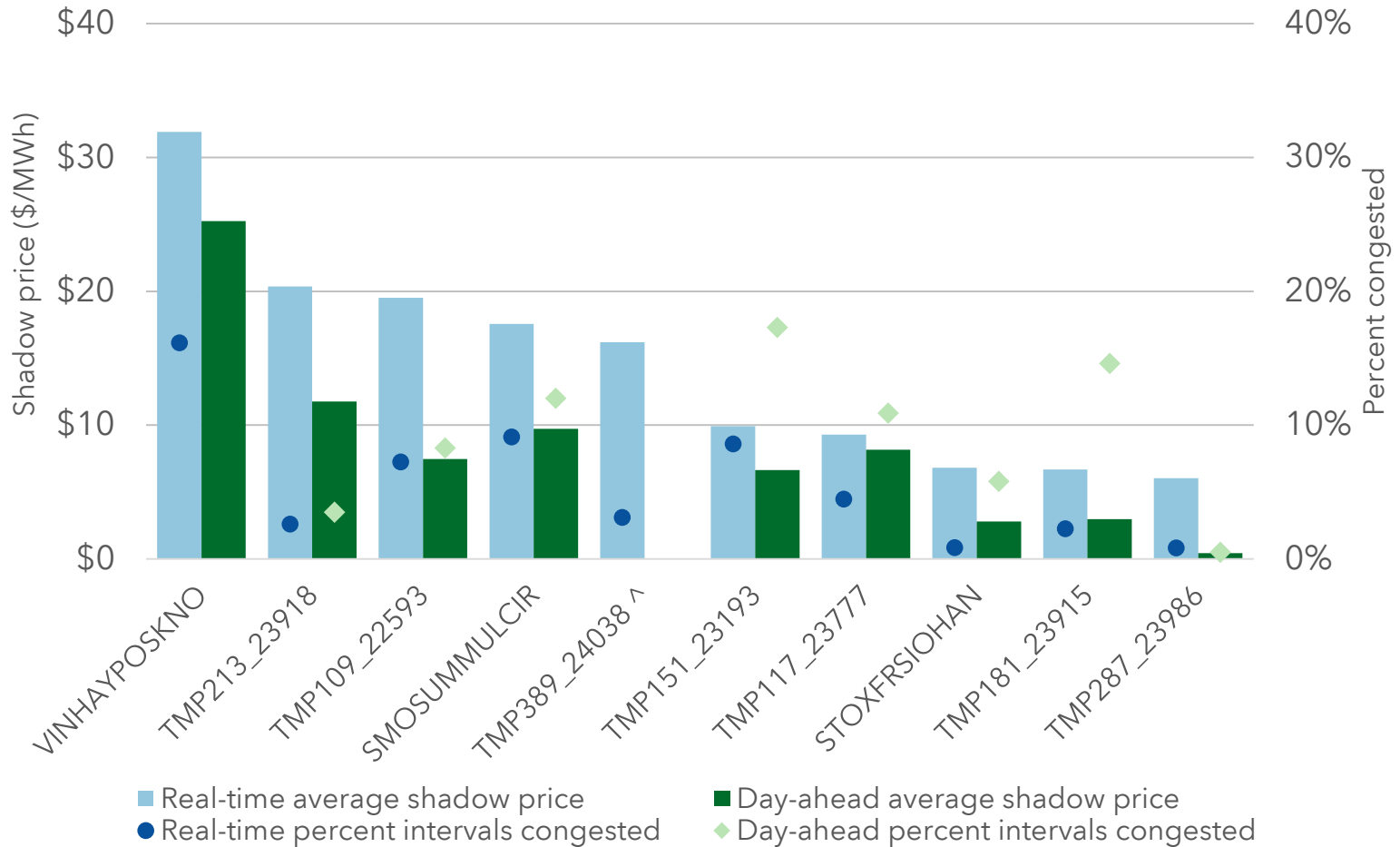
Breached intervals declining



Prices vary across footprint

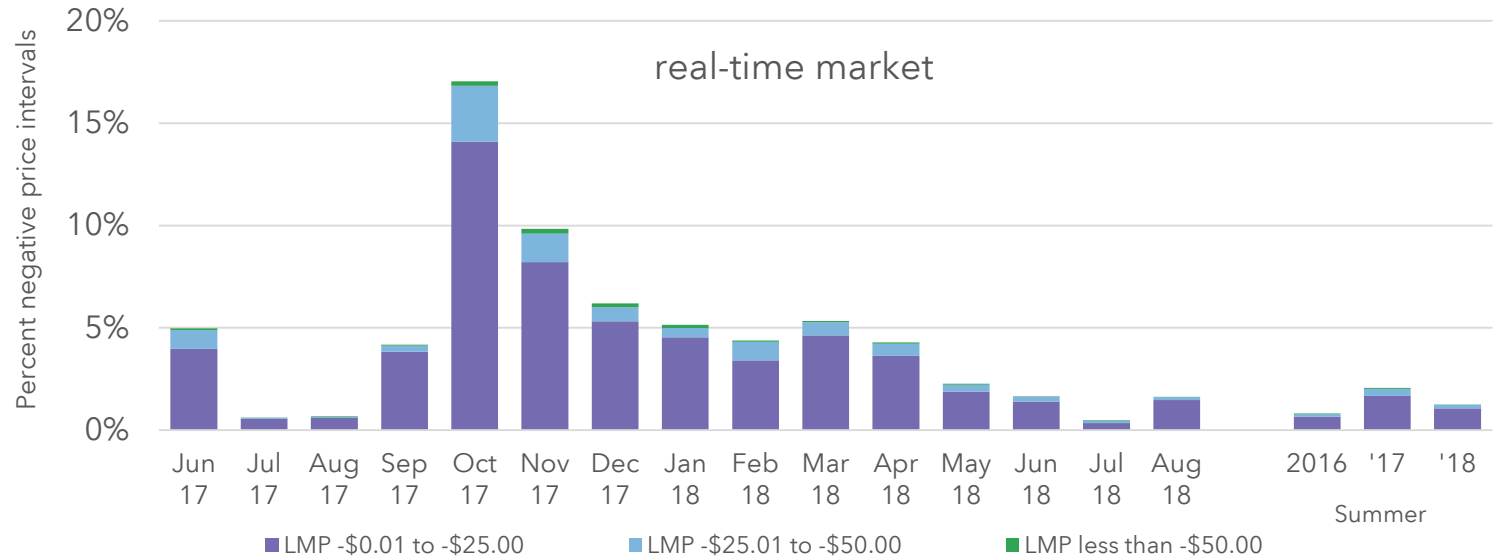
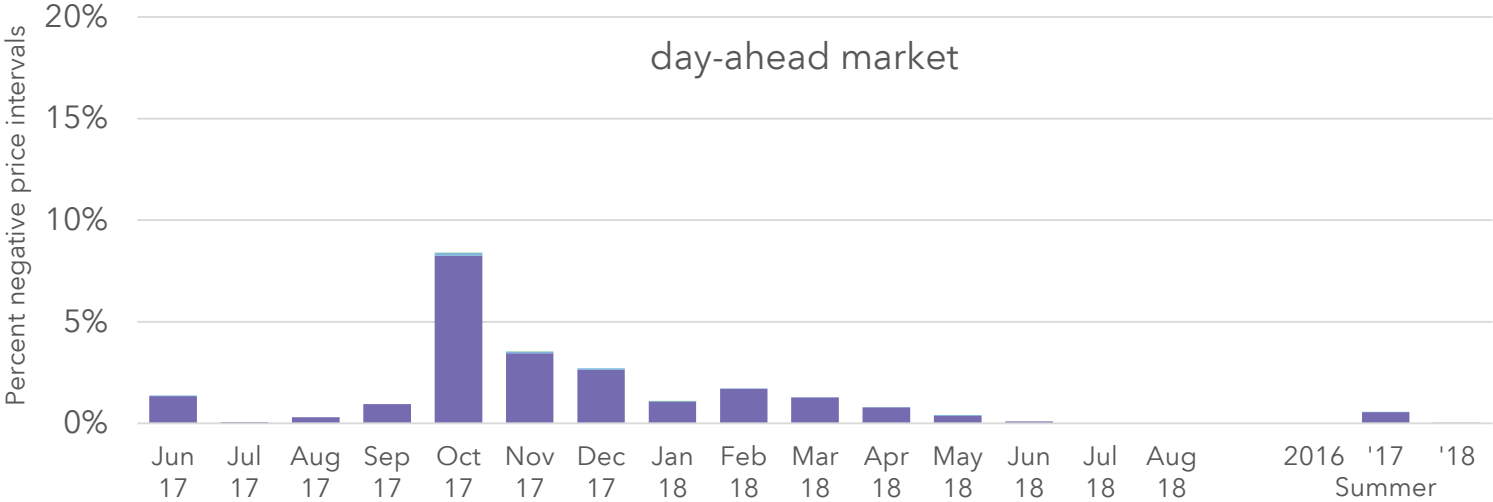


Congestion has shifted

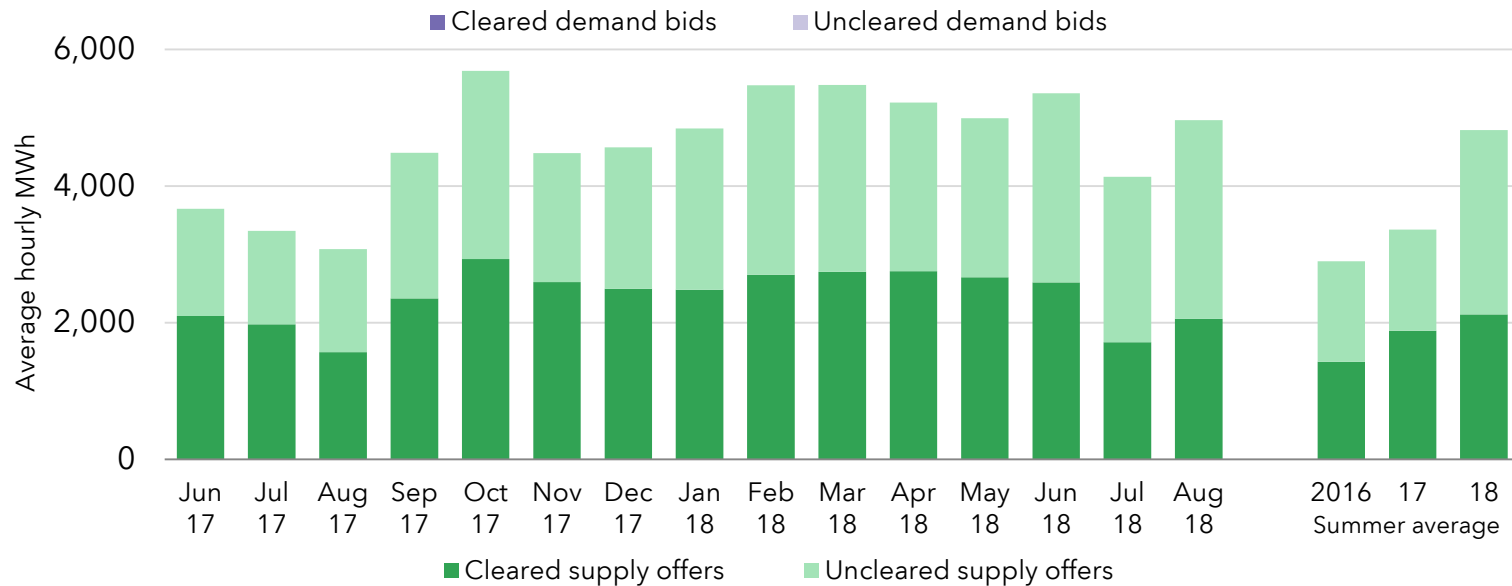
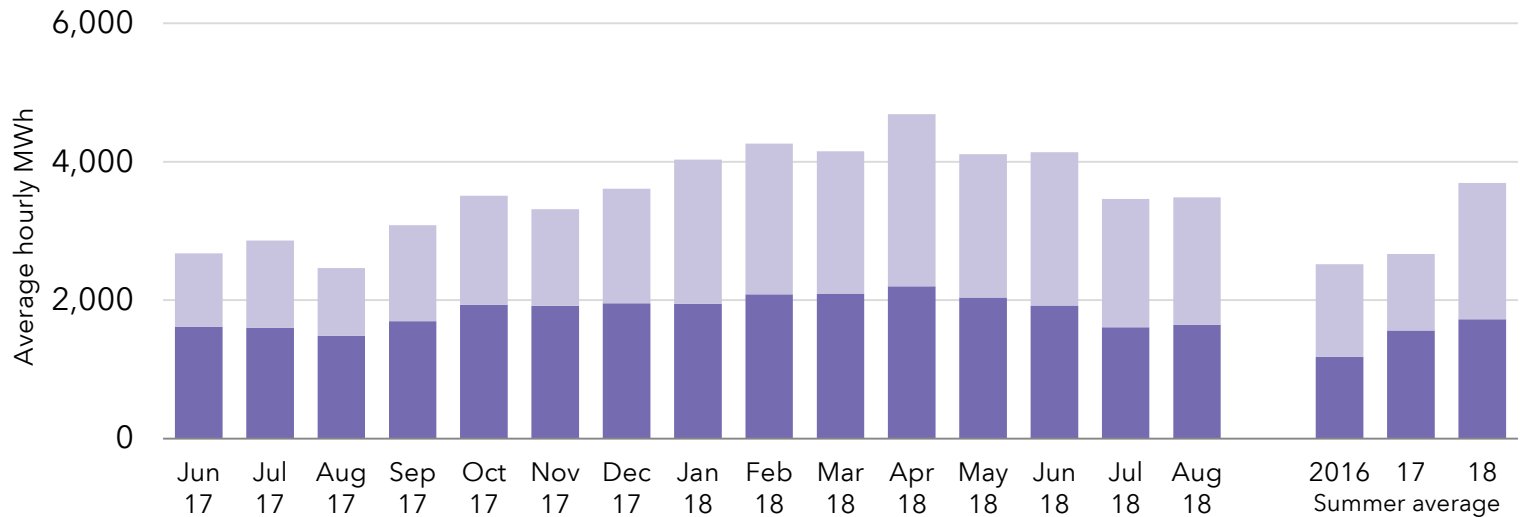


^ MISO market-to-market

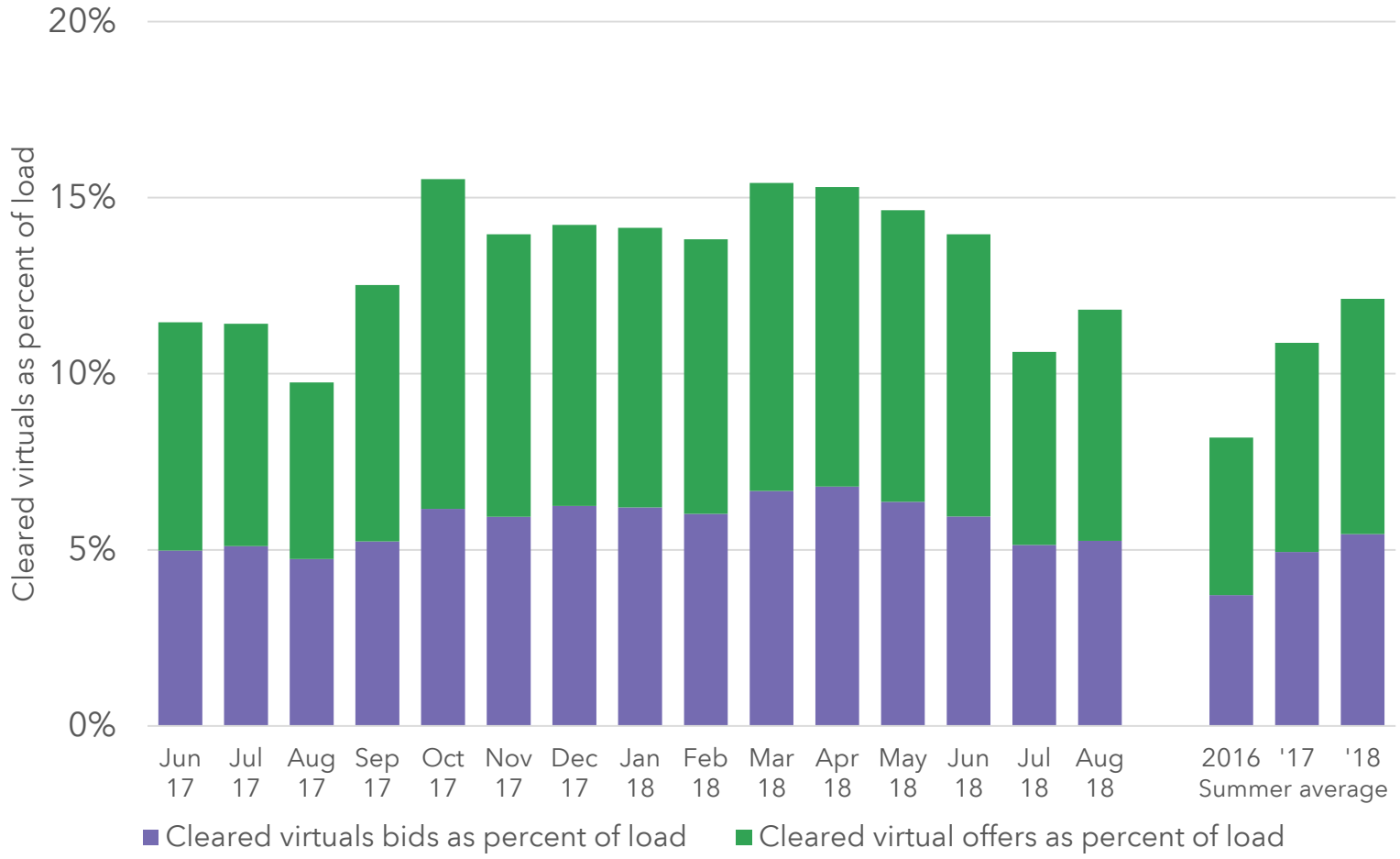
Negative price intervals declined



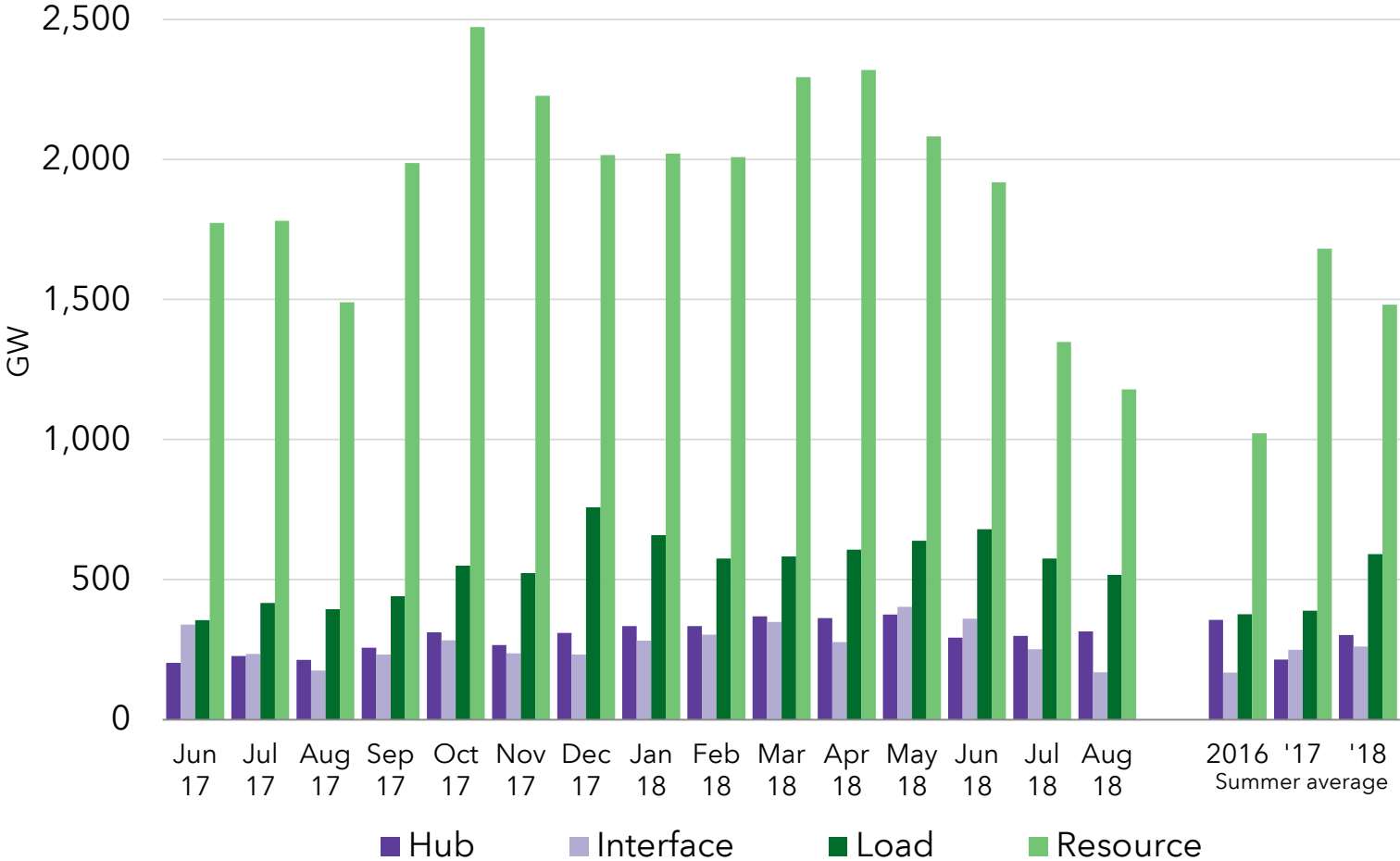
Virtual transactions continue to grow



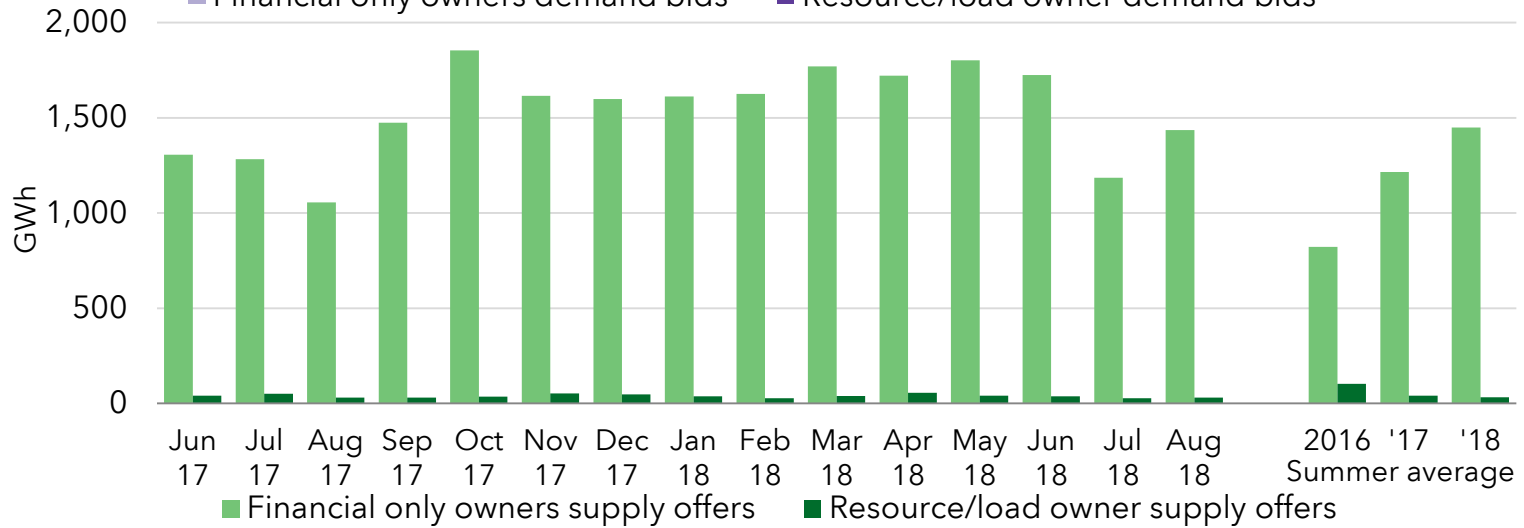
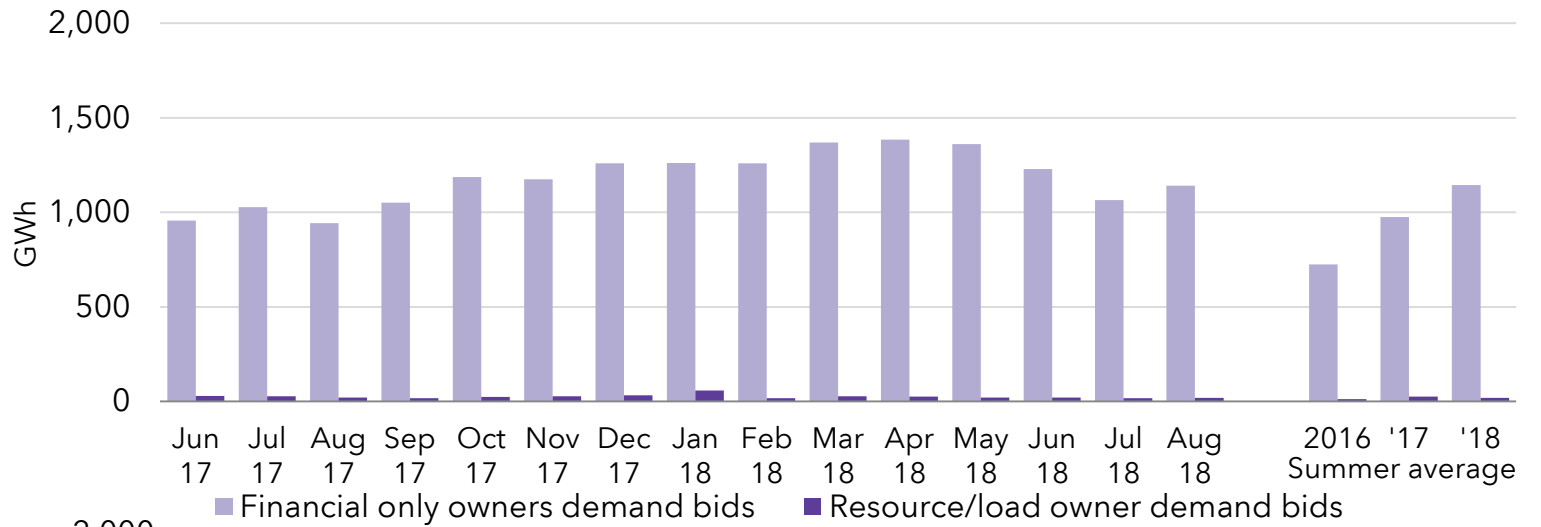
Virtual transactions compared to load increasing



Most virtual transactions placed at resources

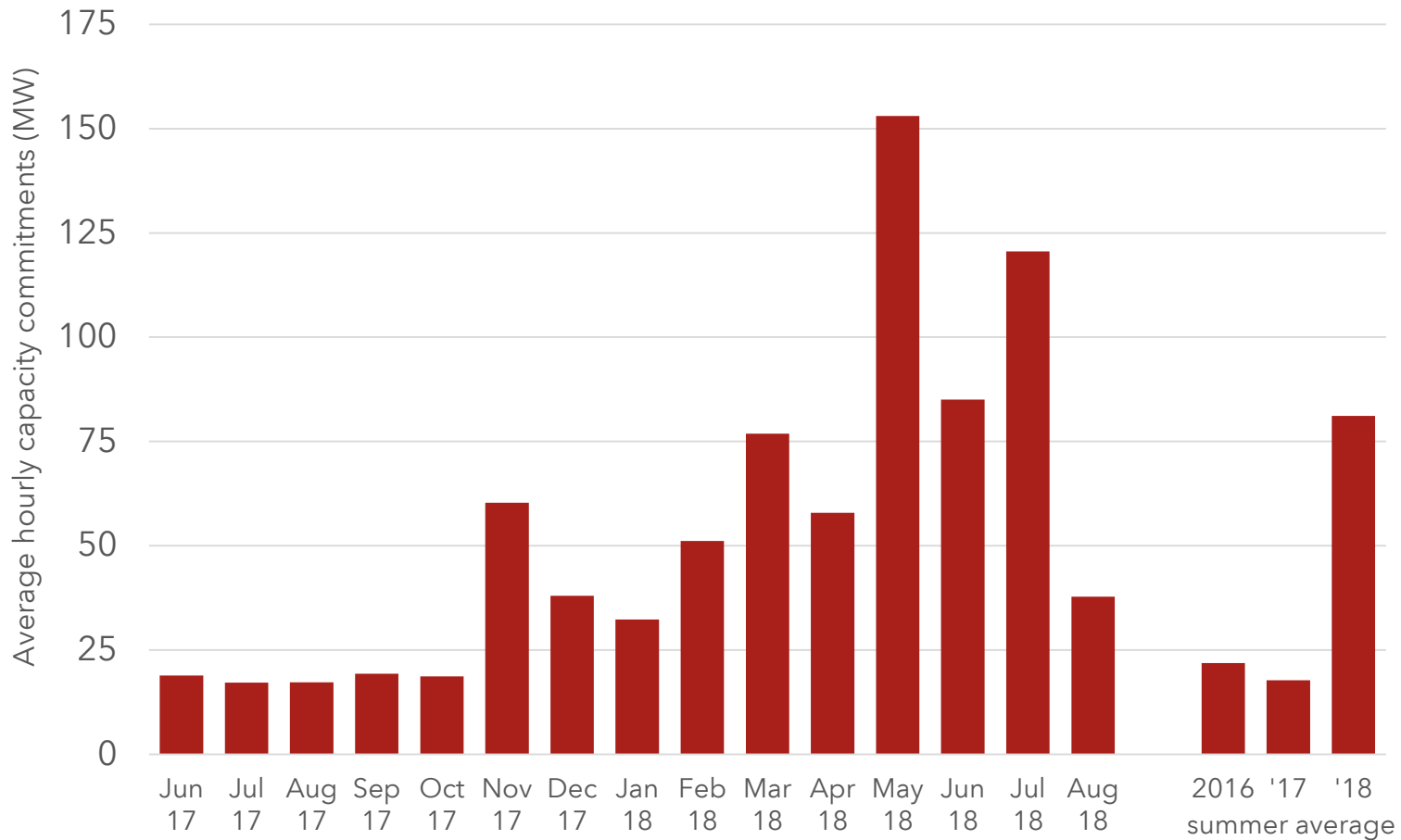


Most virtual transactions done by financial only participants

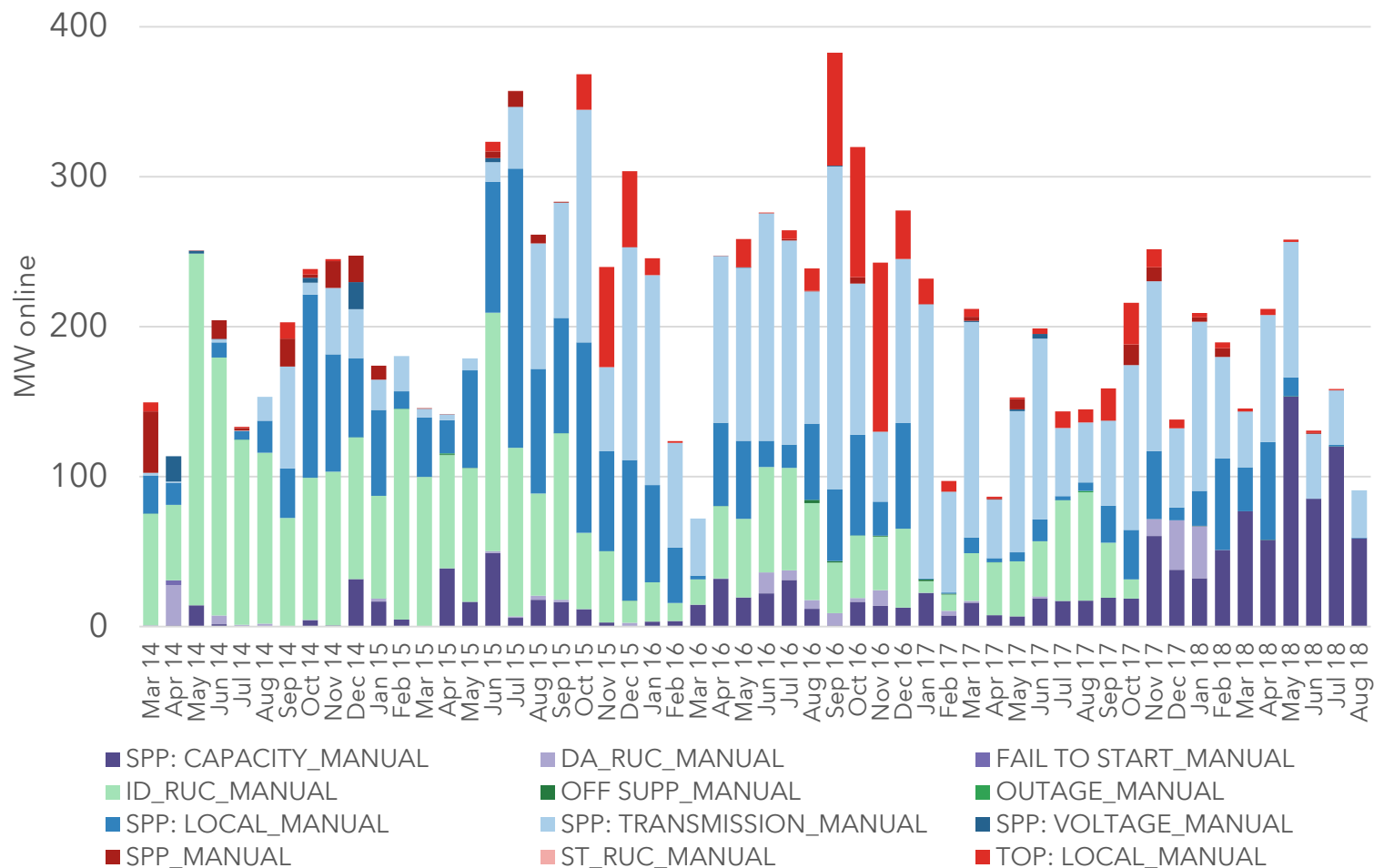


Manual commitments

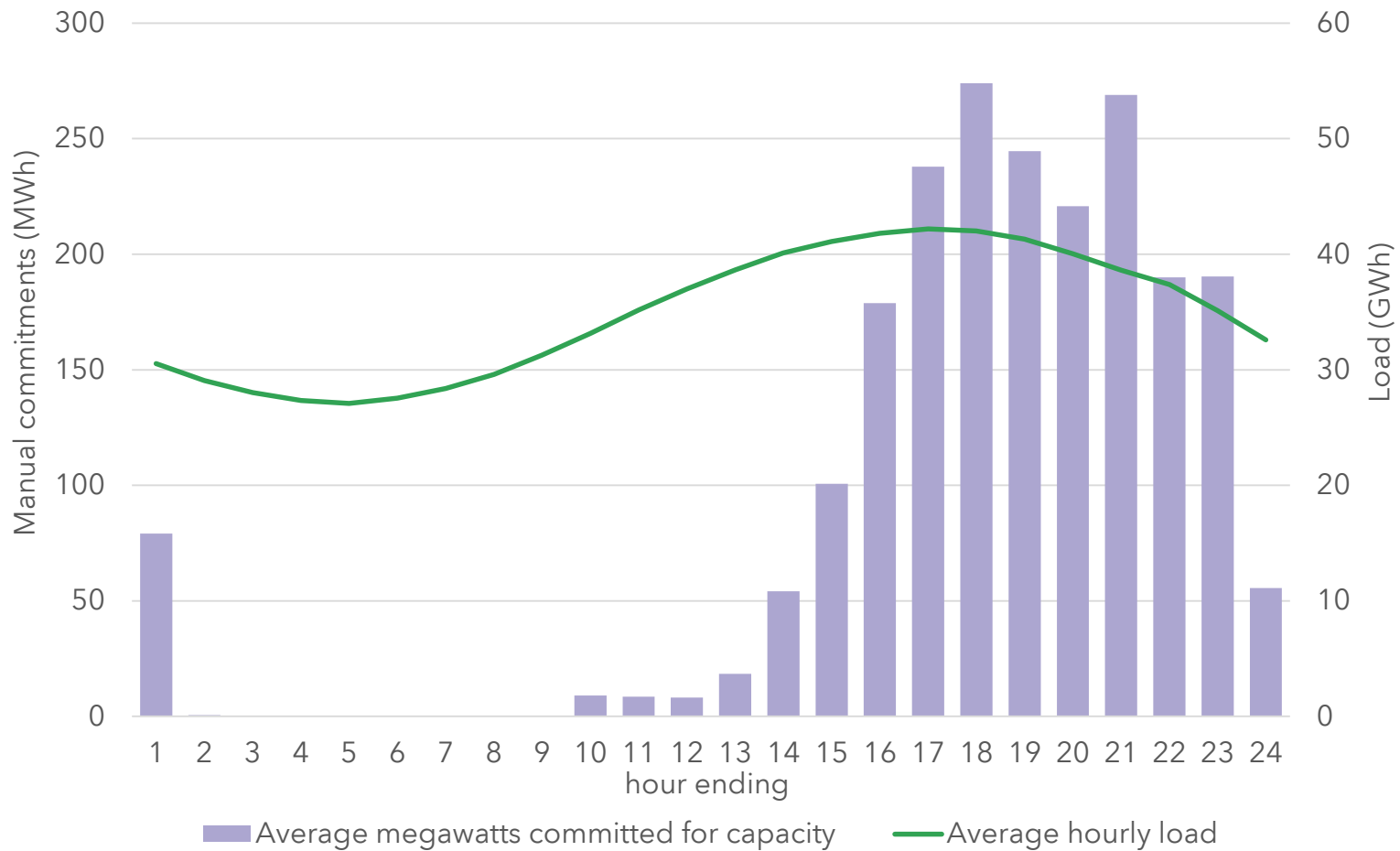
Increase in manual commits beginning November 2017



Shift in coding manual commitments in late 2017



Most commitments occur late in the day



Recommendations

- More detail and consistency for reason for commitments
- Public posting will provide transparency
- Implementation of a ramping product

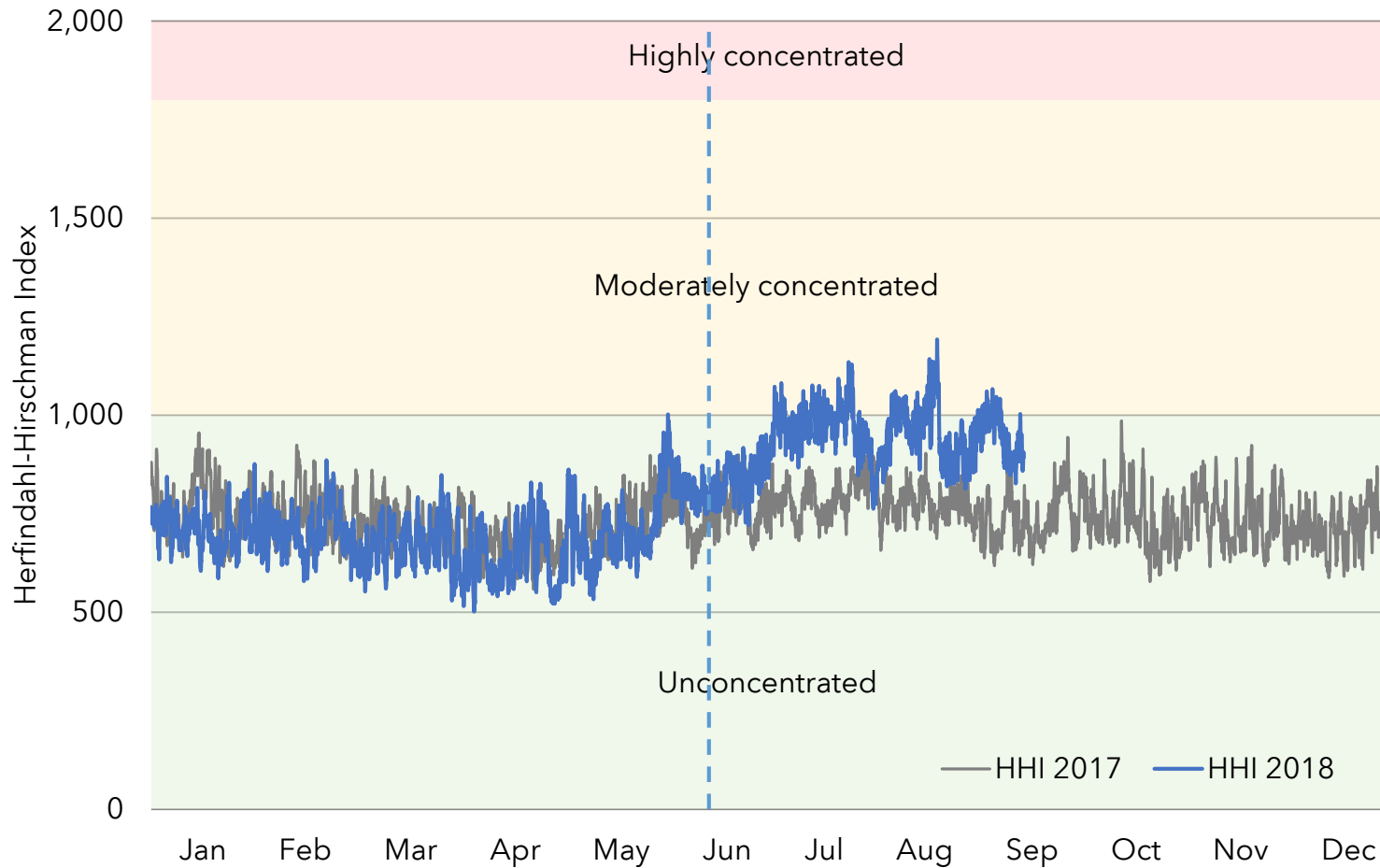
Great Plains / Westar merger

Great Plains / Westar merger

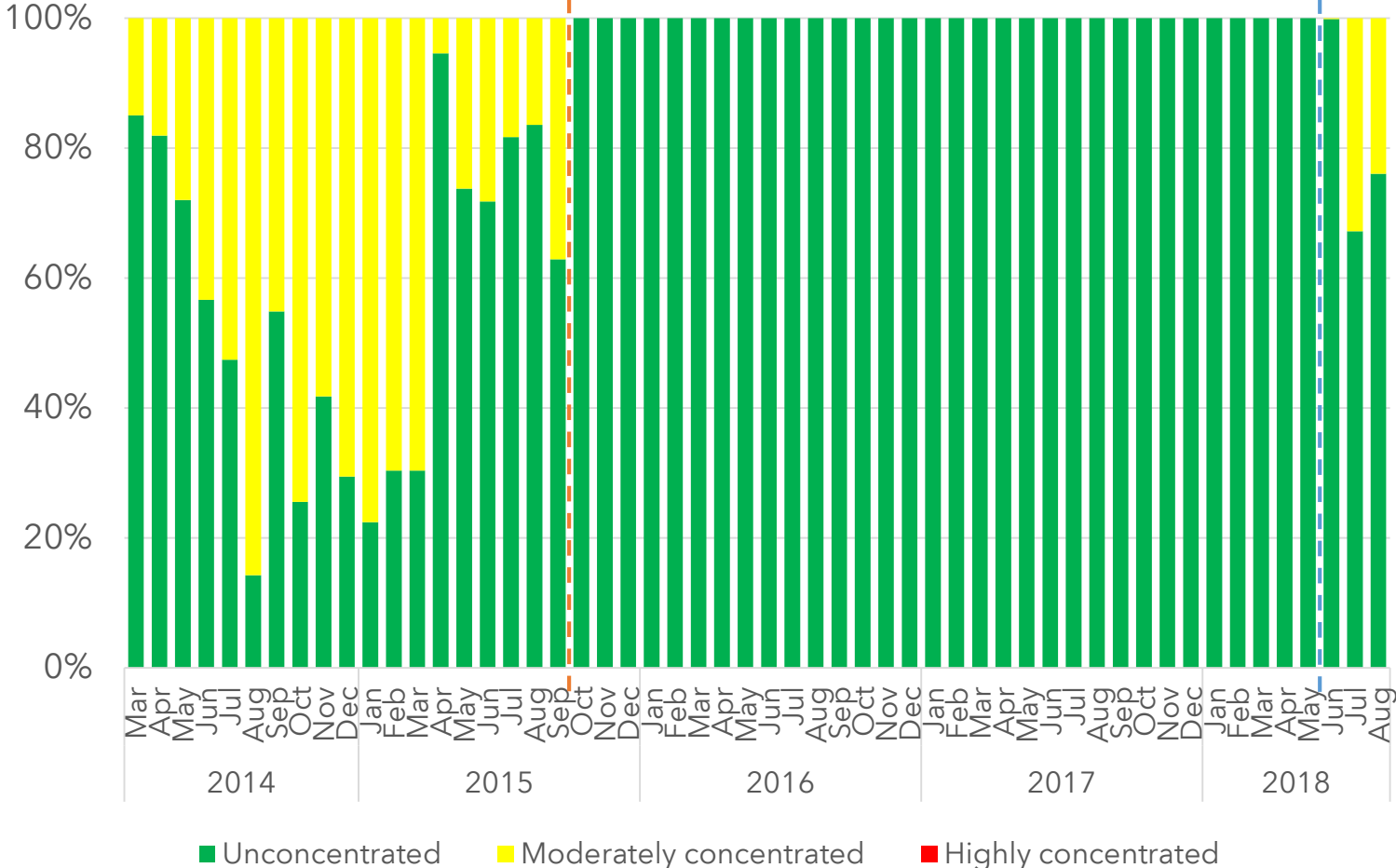
Market participant	2017	
	Percent of system	Cumulative percent
American Electric Power	17.0%	17.0%
Oklahoma Gas and Electric	11.3%	28.3%
Southwestern Public Service Company	10.5%	38.8%
Westar Energy	9.7%	48.5%
Kansas City Power and Light	9.5%	58.0%
Basin Power Electric Cooperative	7.6%	65.6%
The Energy Authority, NPPD	5.4%	71.0%
Omaha Public Power District	4.5%	75.5%
Western Farmers Electric Cooperative	3.3%	78.8%
Grand River Dam Authority	2.3%	81.1%

Market participant	Summer 2018	
	Percent of system	Cumulative percent
Eergy	19.7%	19.7%
American Electric Power	17.1%	36.8%
Oklahoma Gas and Electric	11.6%	48.4%
Southwestern Public Service Company	10.2%	58.6%
Basin Electric Power Cooperative	6.7%	65.3%
The Energy Authority, NPPD	4.9%	70.2%
Omaha Public Power District	4.4%	74.6%
Western Farmers Electric Cooperative	3.0%	77.6%
Golden Spread Electric Cooperative Inc.	2.9%	80.5%
Grand River Dam Authority	2.2%	82.7%

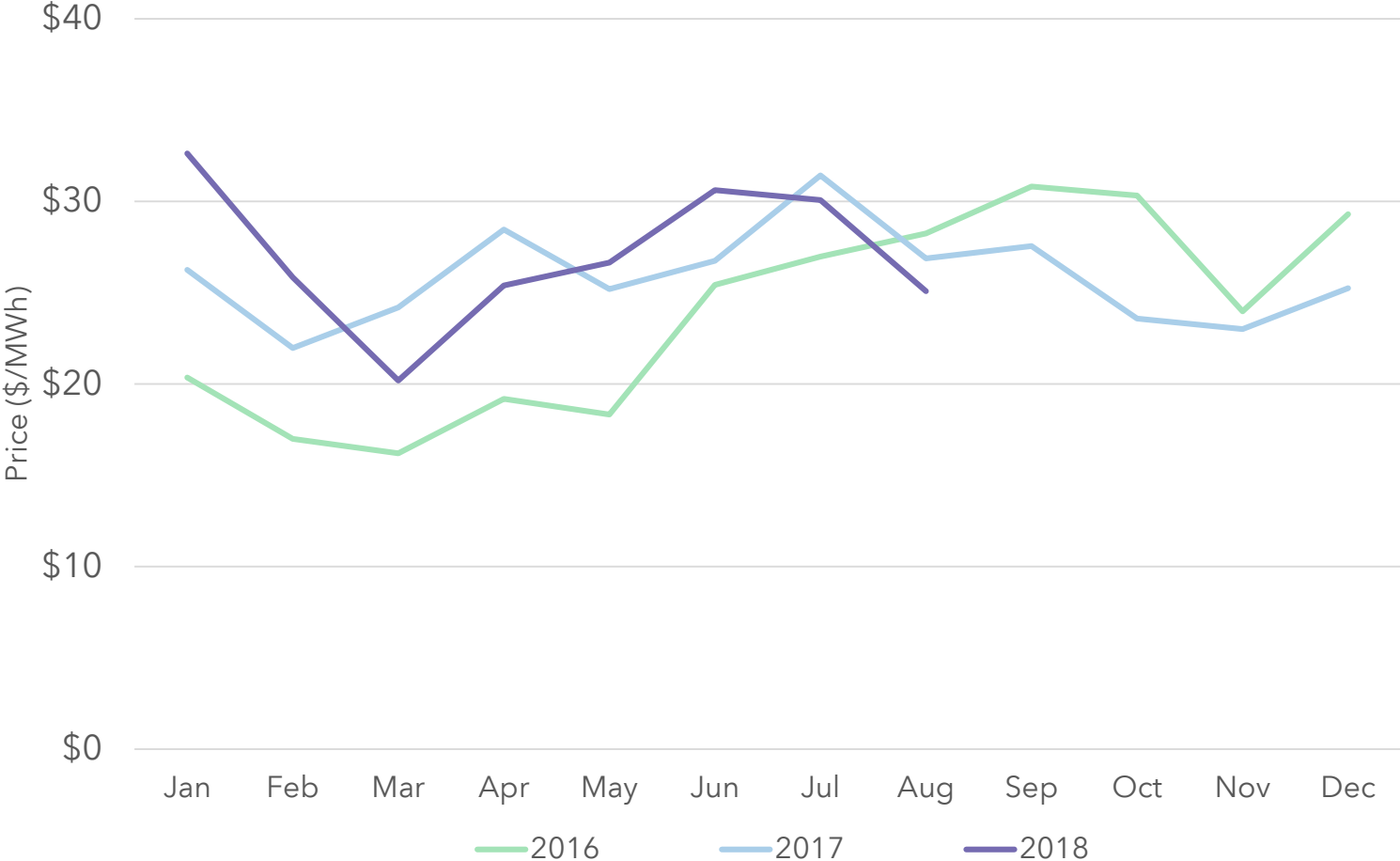
Great Plains / Westar merger



Historical HHI



Reserve zone price



Great Plains / Westar merger

- Increase in market concentration
- Not necessarily a cause for concern
- MMU will continue to monitor competitiveness across the footprint

Questions?