



Fall 2019

Quarterly Report

*Helping our members work together to
keep the lights on... today and in the future.*



SouthwestPowerPool



SPPorg



southwest-power-pool

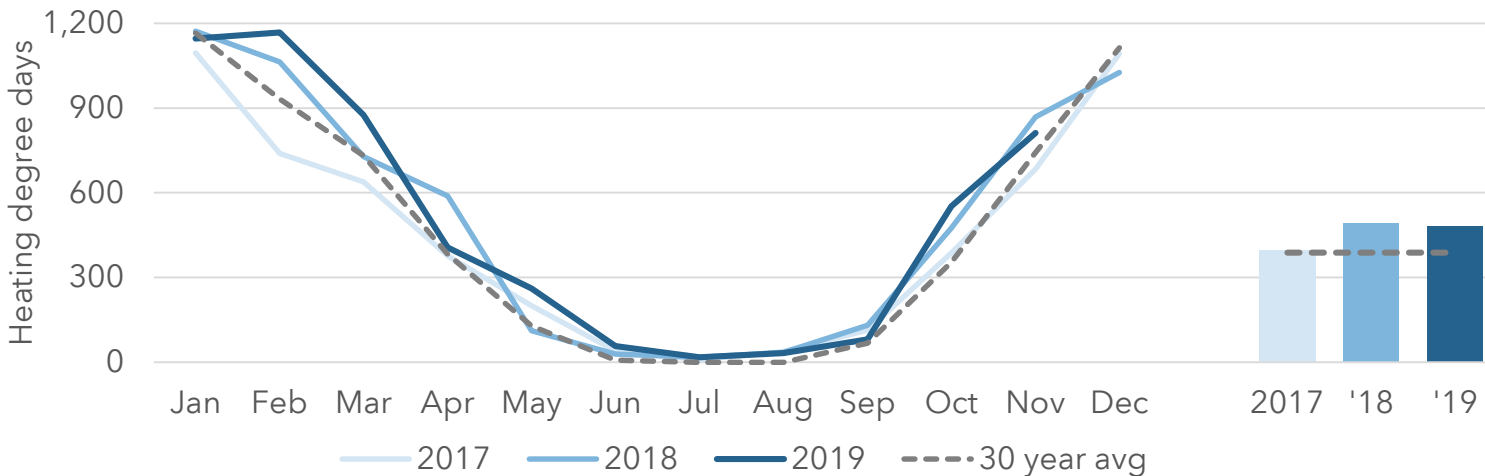
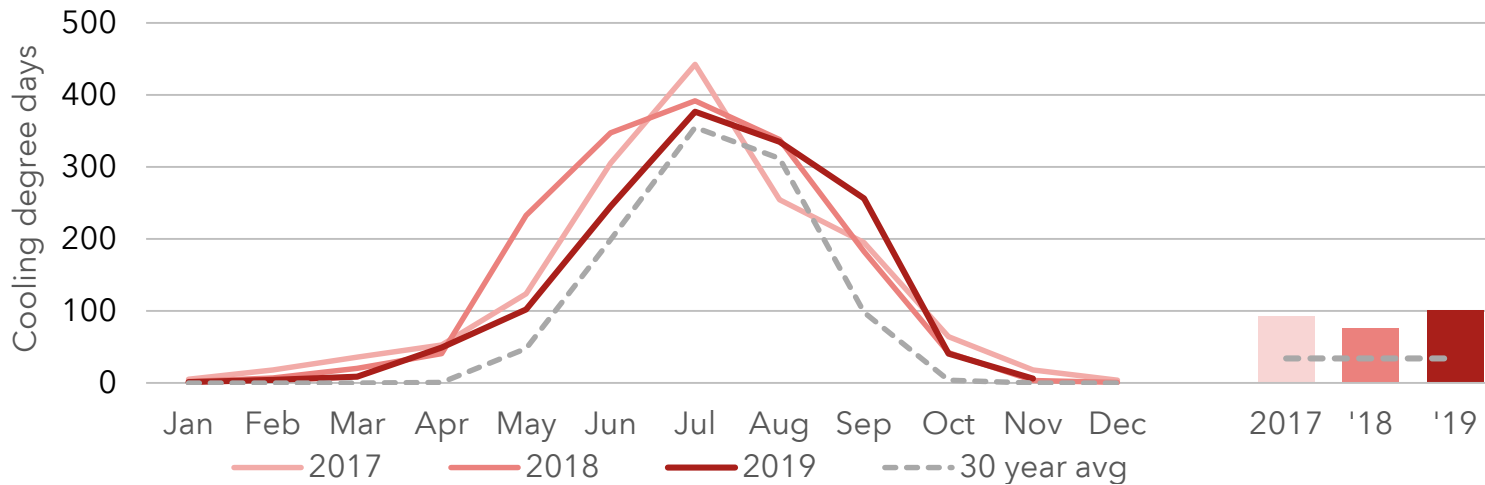
Fall 2019 highlights

- Average hourly load up four percent
- Wind generation capacity climbed by 600 MW
- Energy prices and gas costs decreased
- Real-time make-whole payments increased
- Summary of report on rate pancaking and unreserved use

Overall load increased



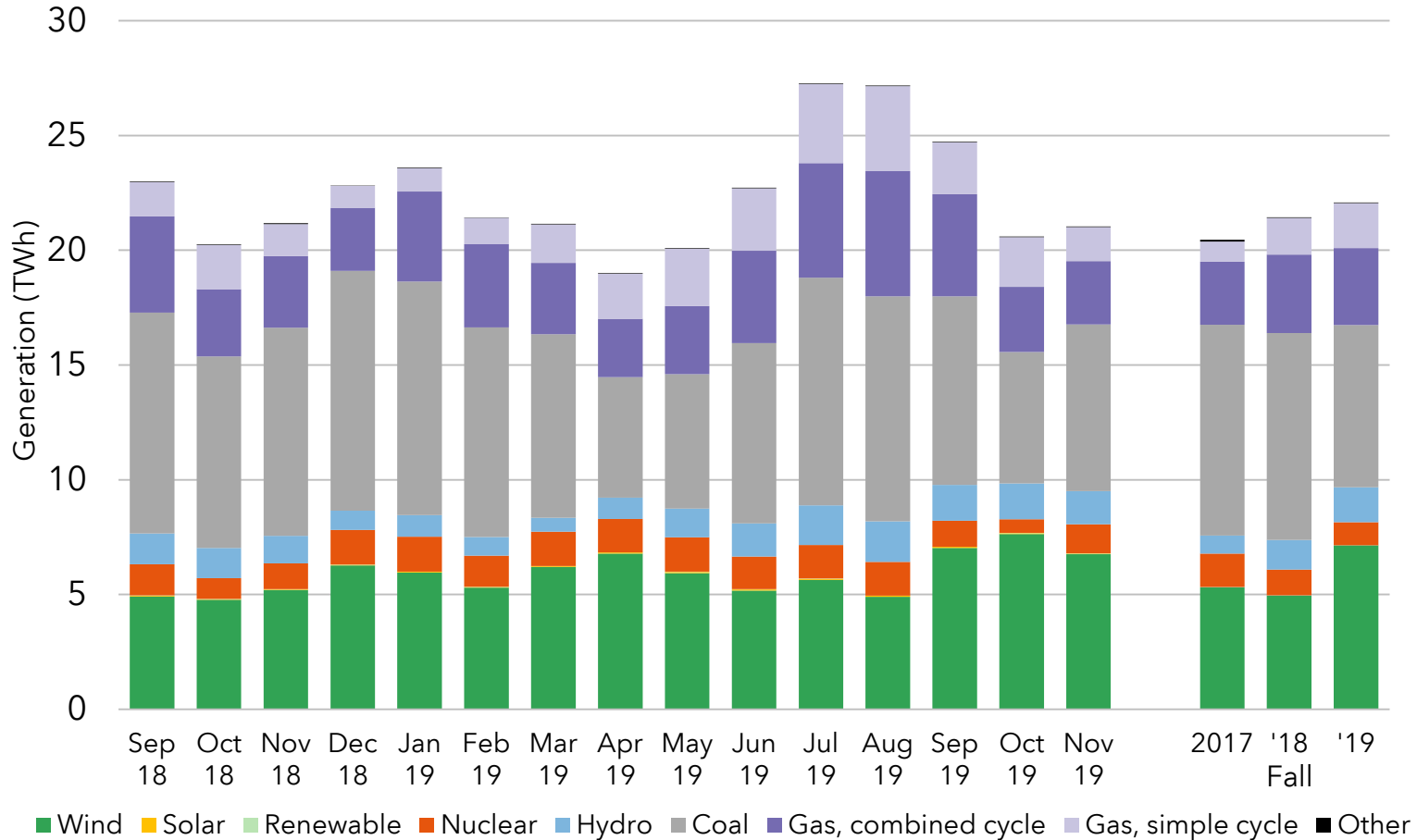
Warmer September/colder October



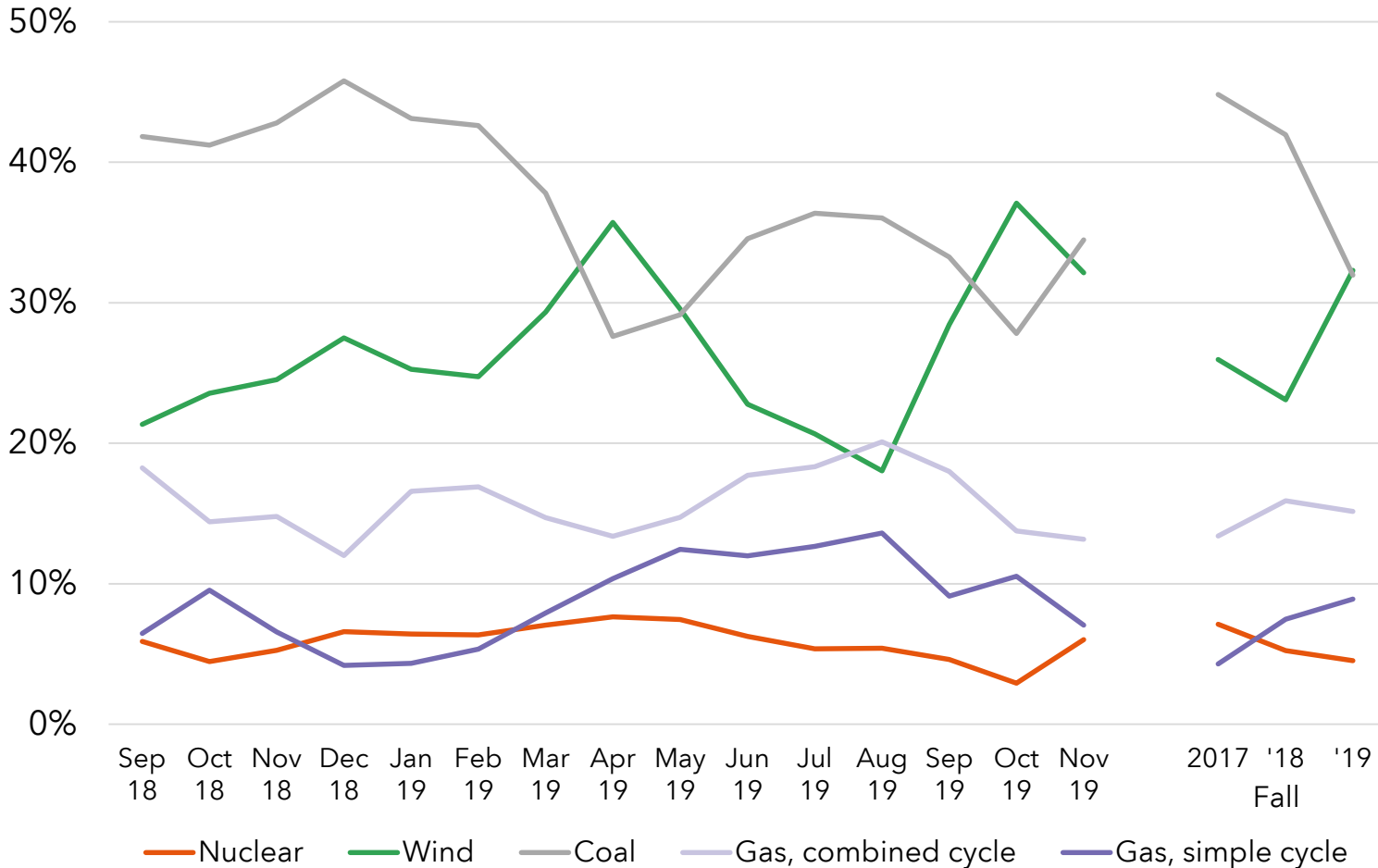
2017 '18 '19

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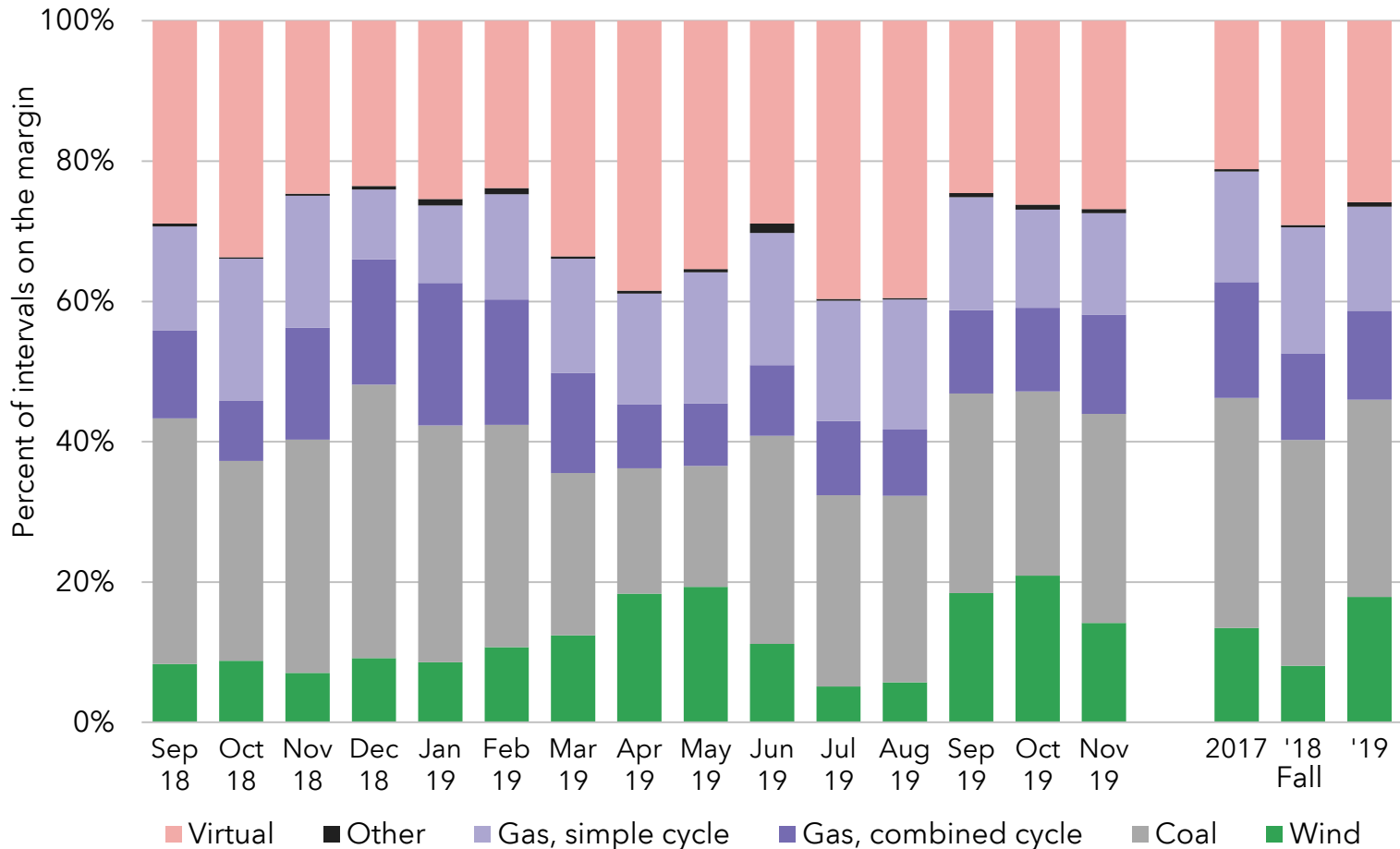
Generation increased



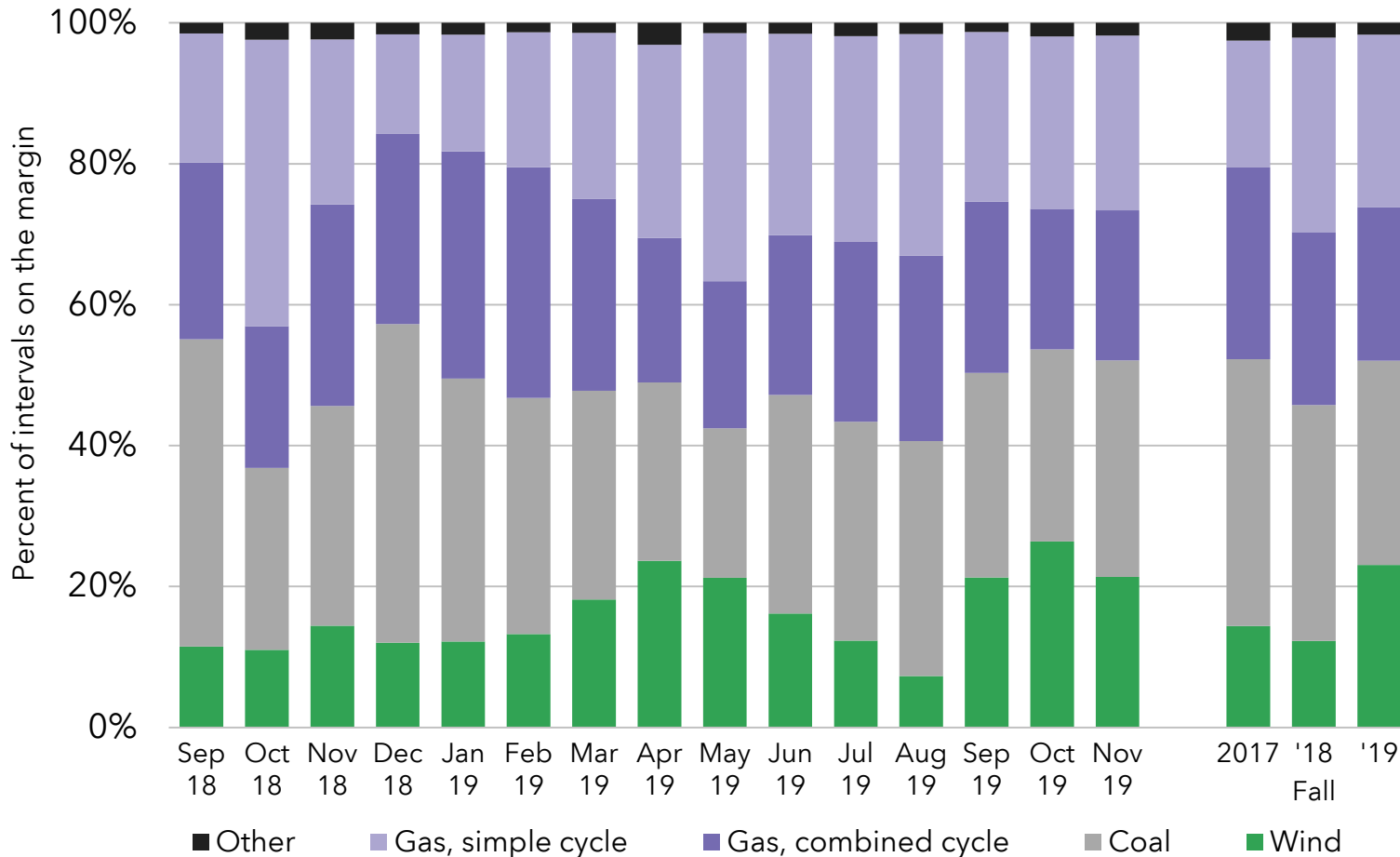
Coal generation continued decline



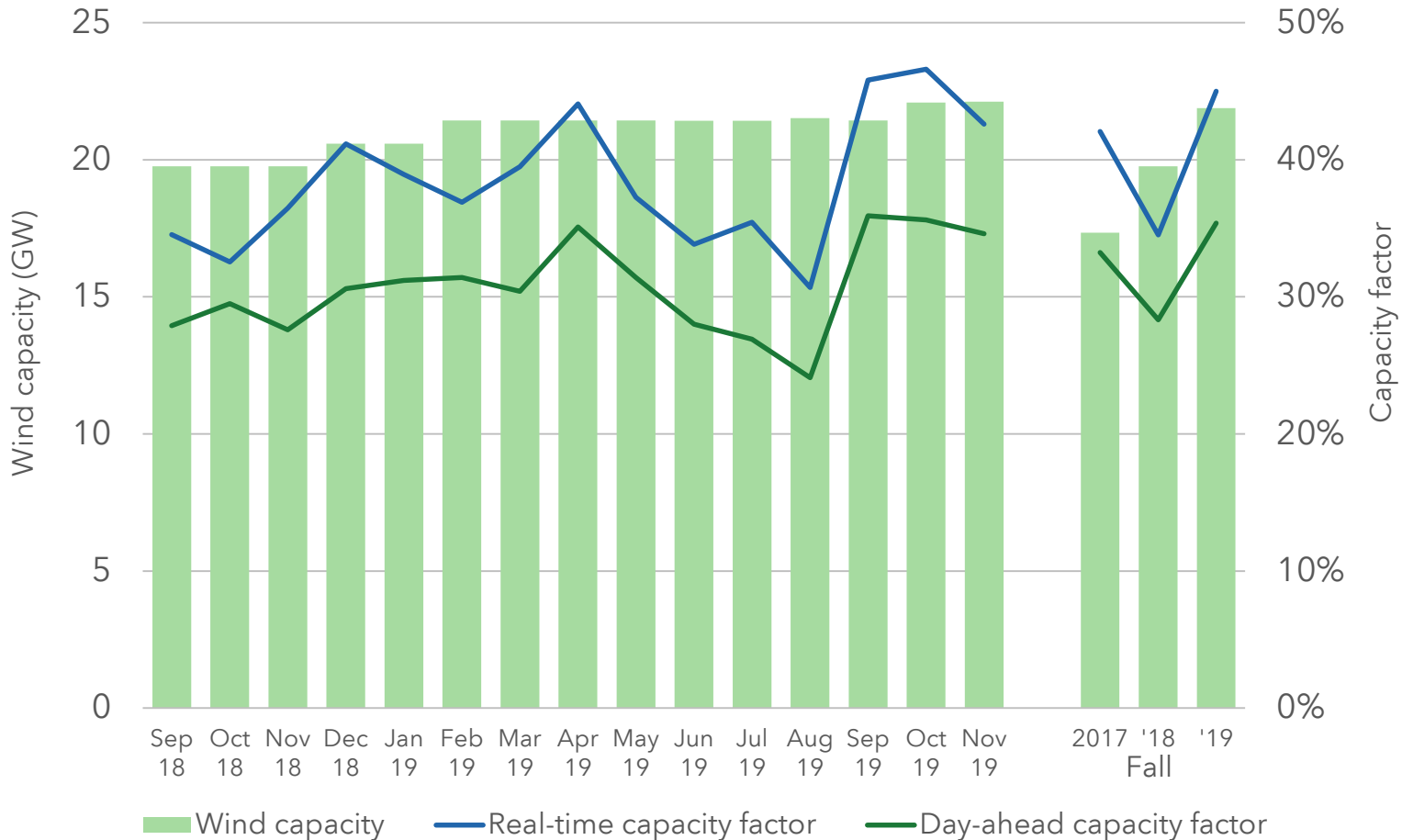
Virtualls set prices more frequently in day-ahead market



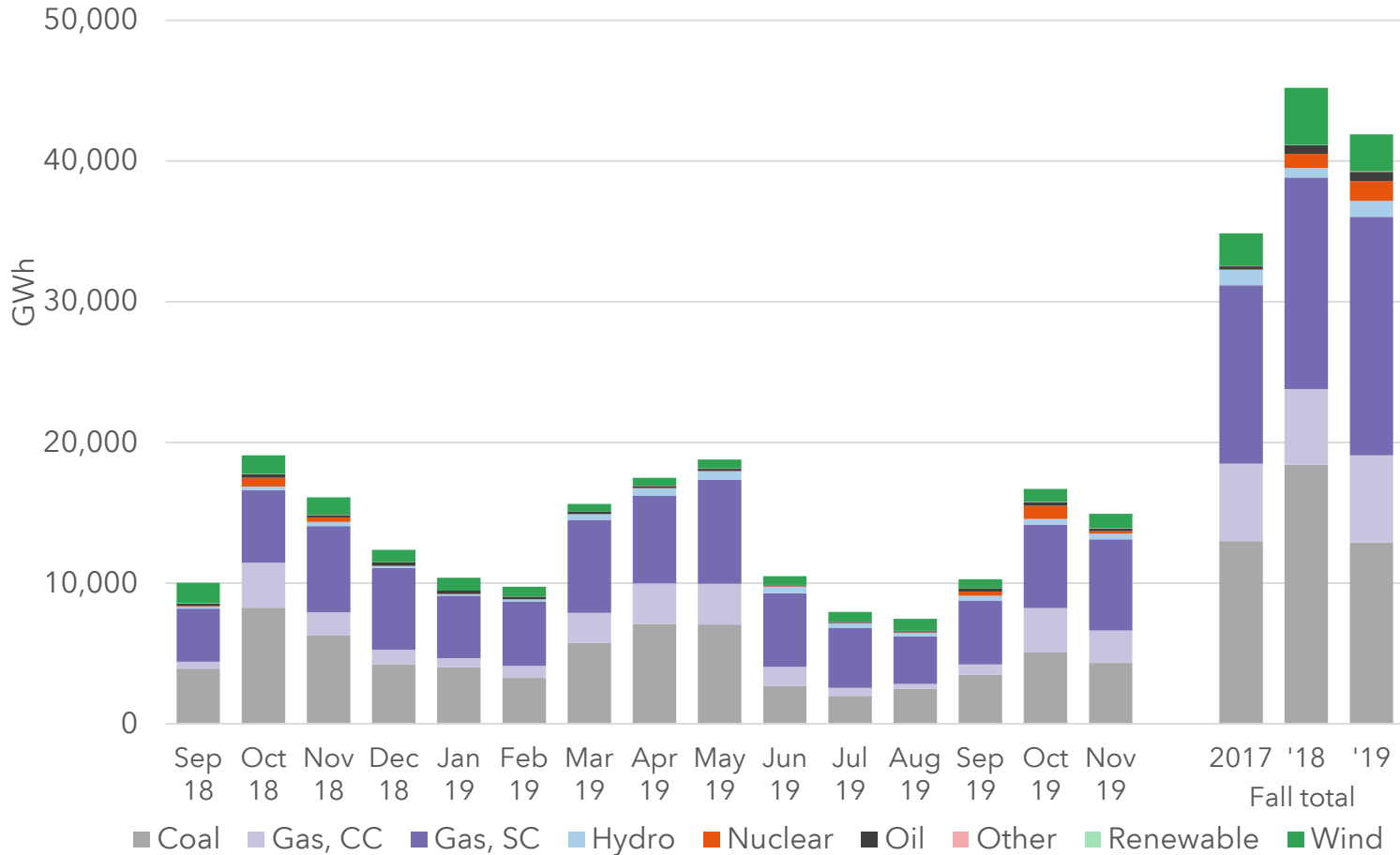
Wind set prices more frequently in real-time market



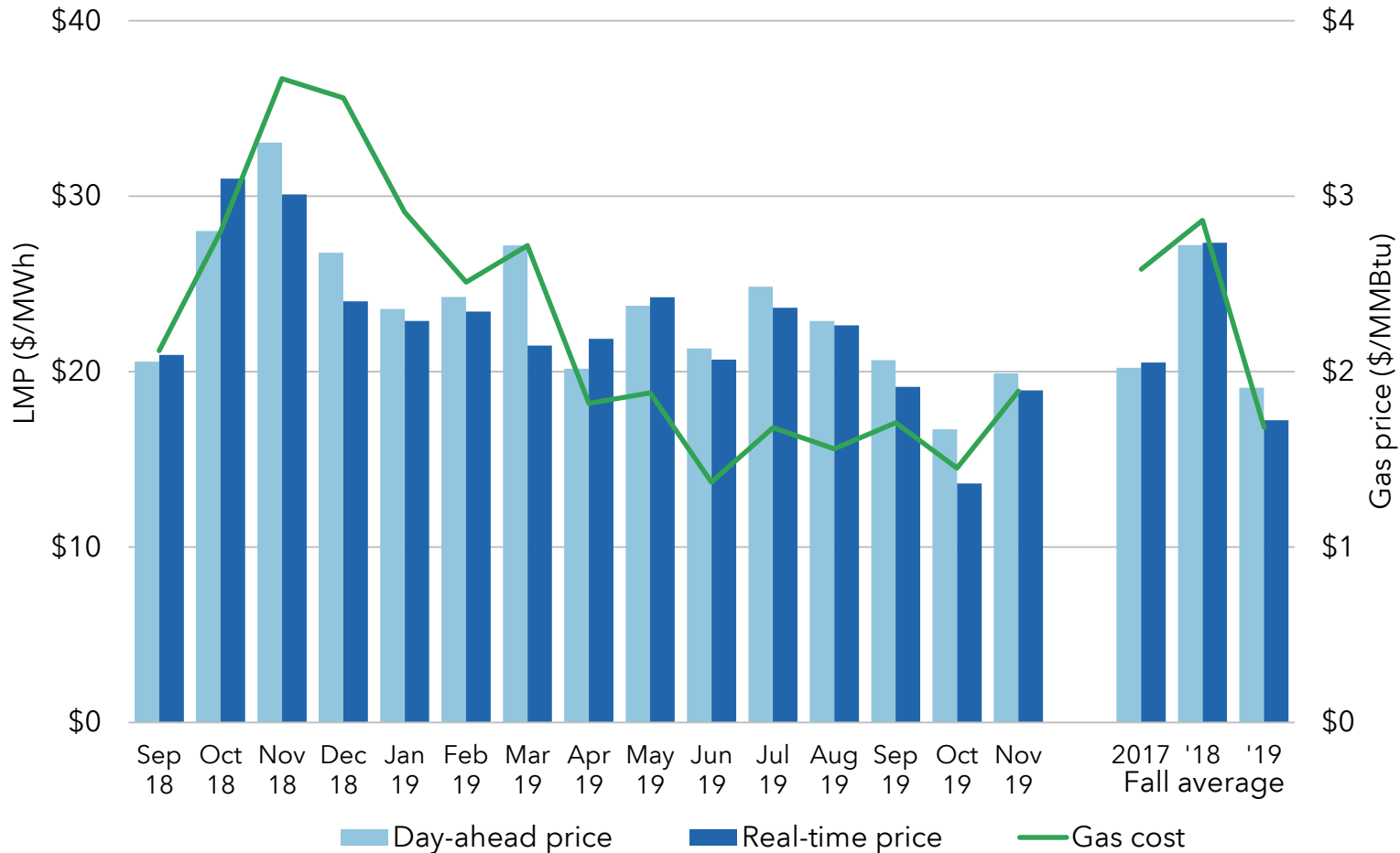
Wind capacity continued to grow



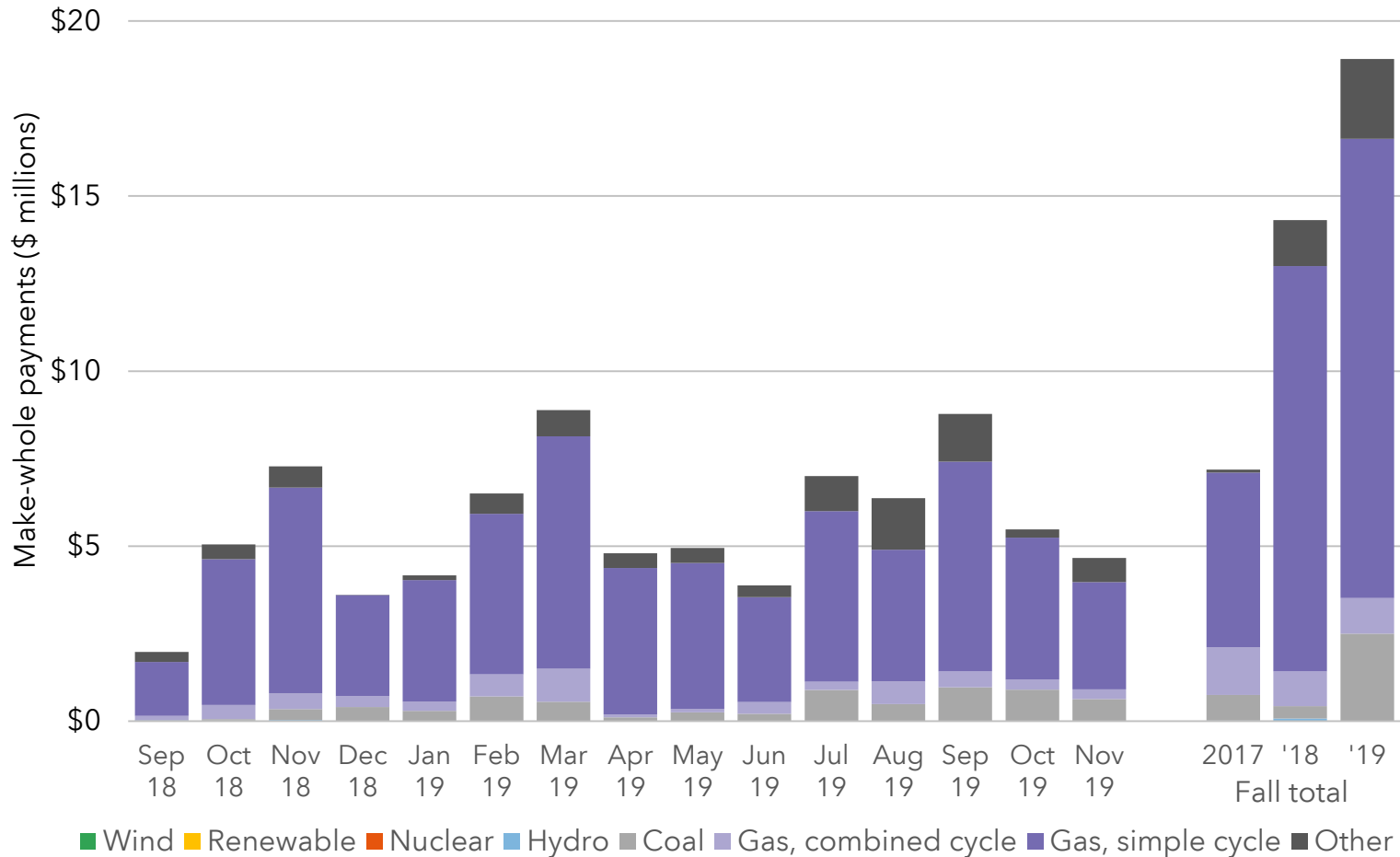
Outages have decreased



Prices continued to fall



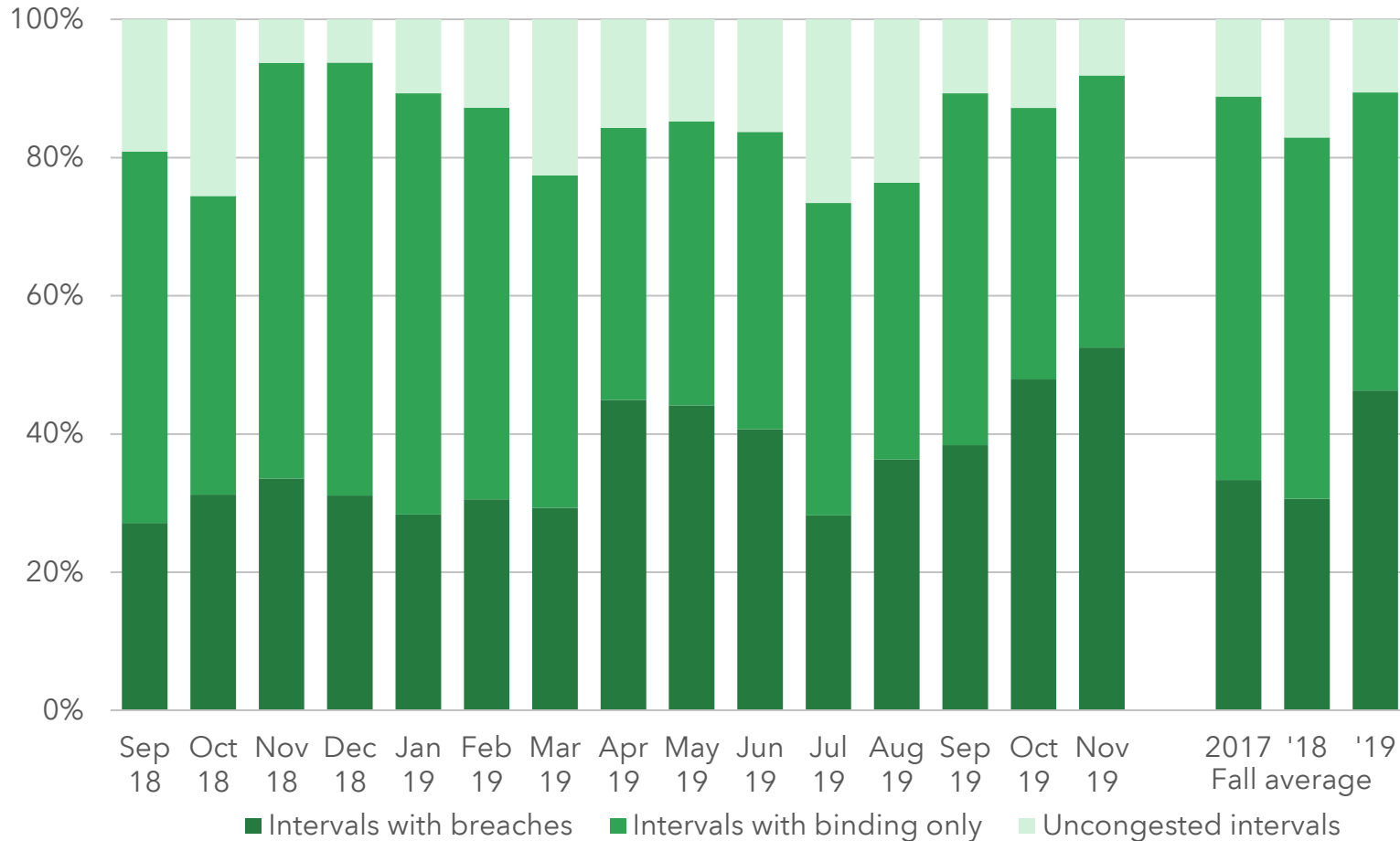
Make-whole payments (RUC) increased



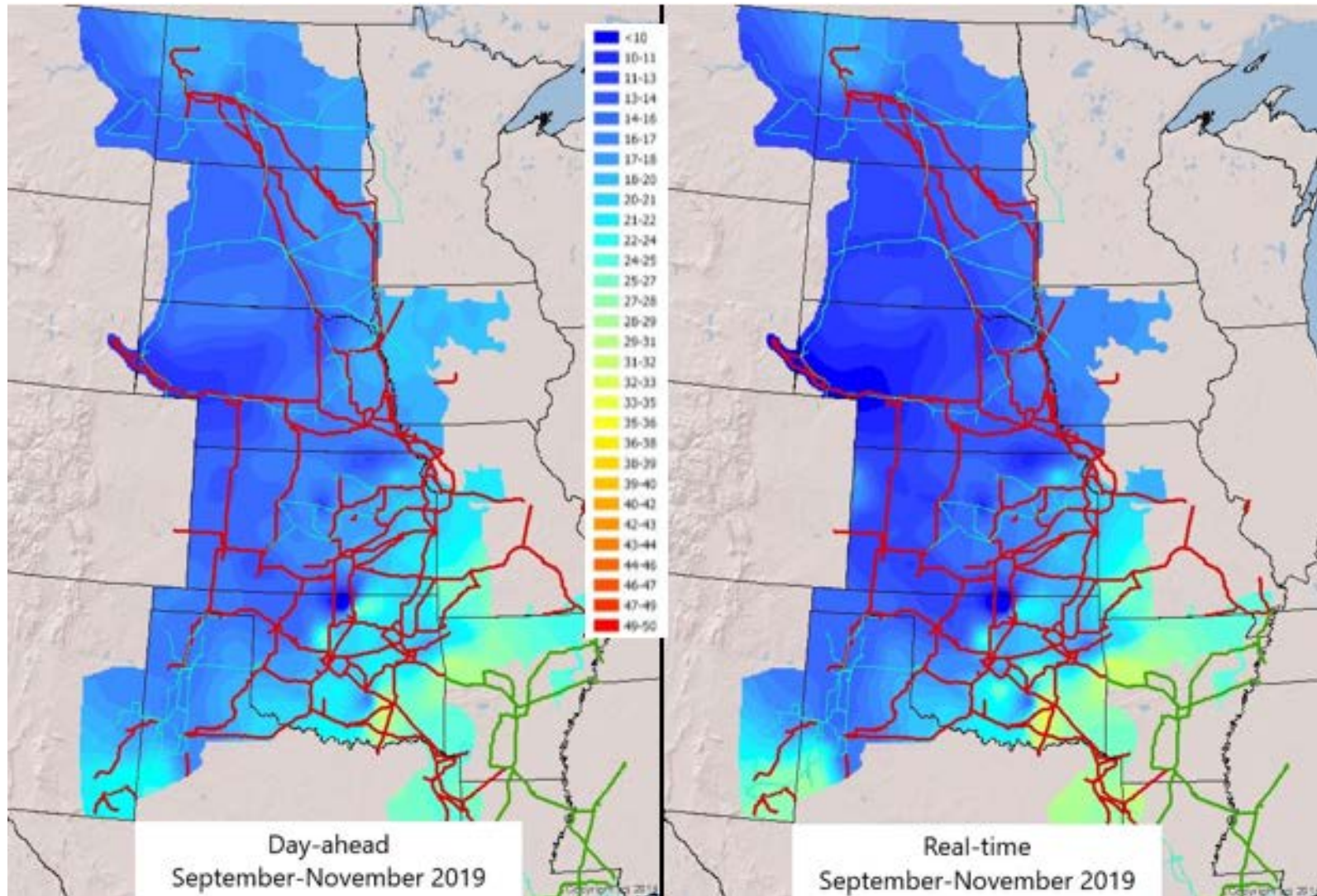
Negative price intervals increased



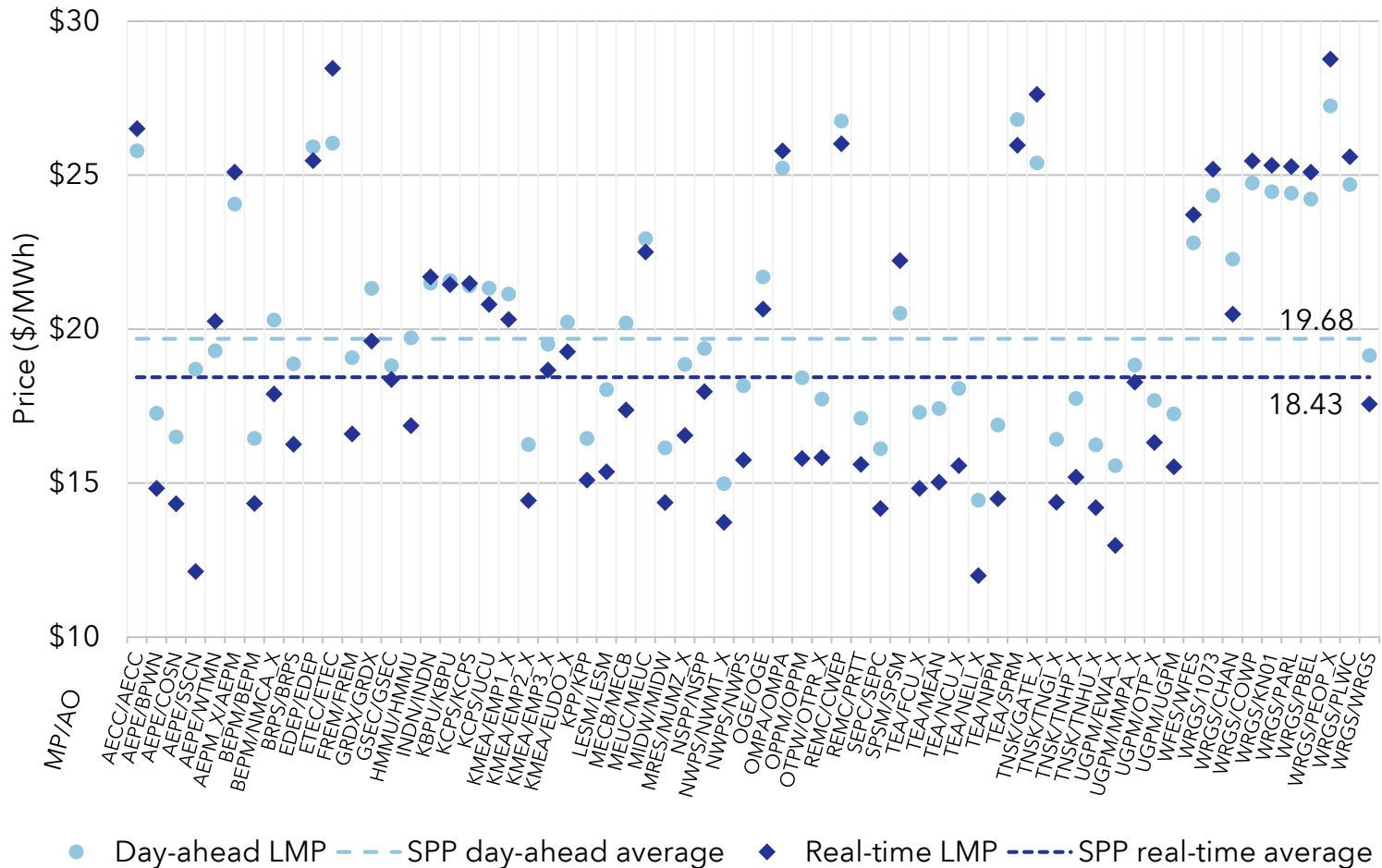
Real-time breached intervals increased



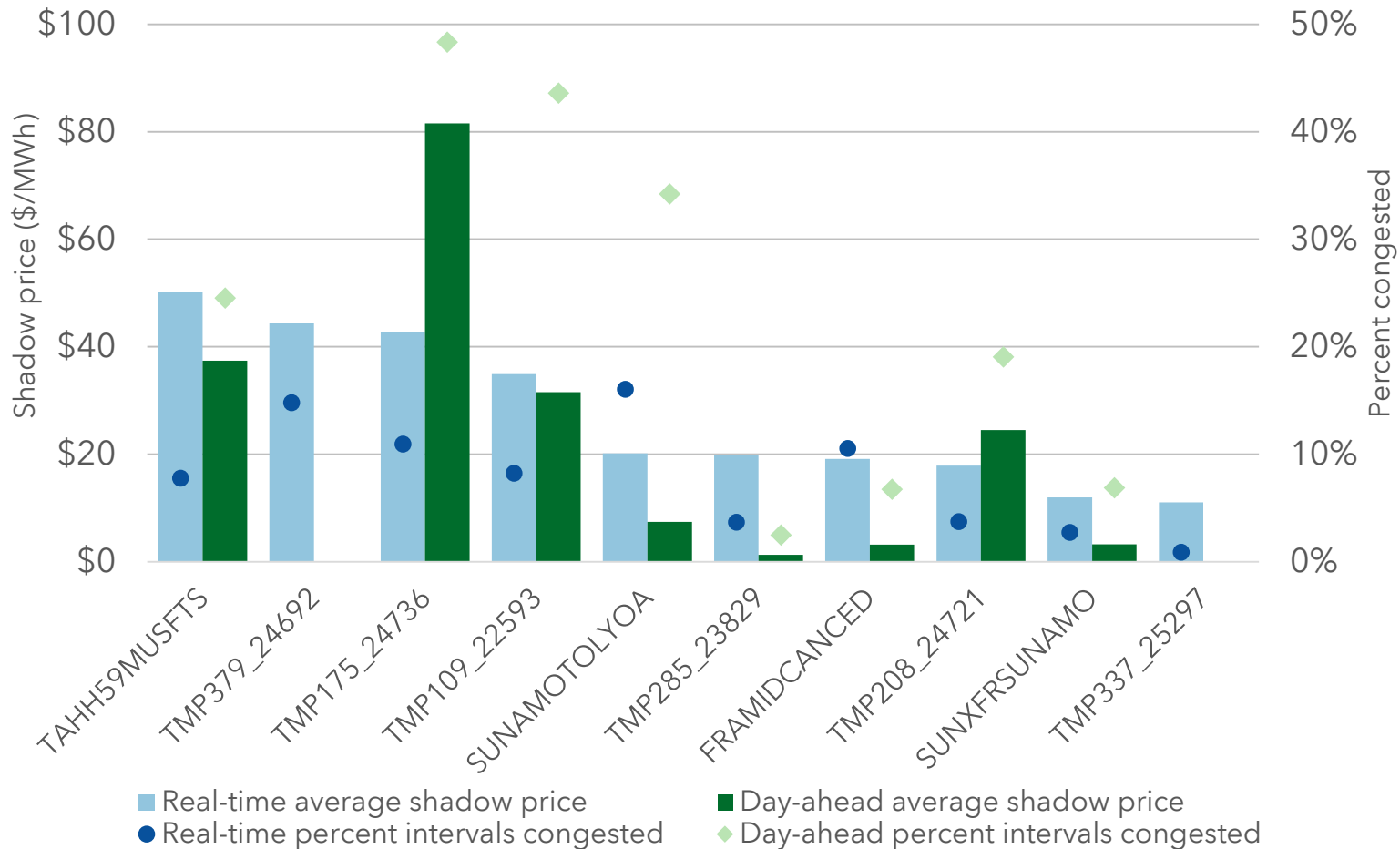
Congestion pattern similar between markets



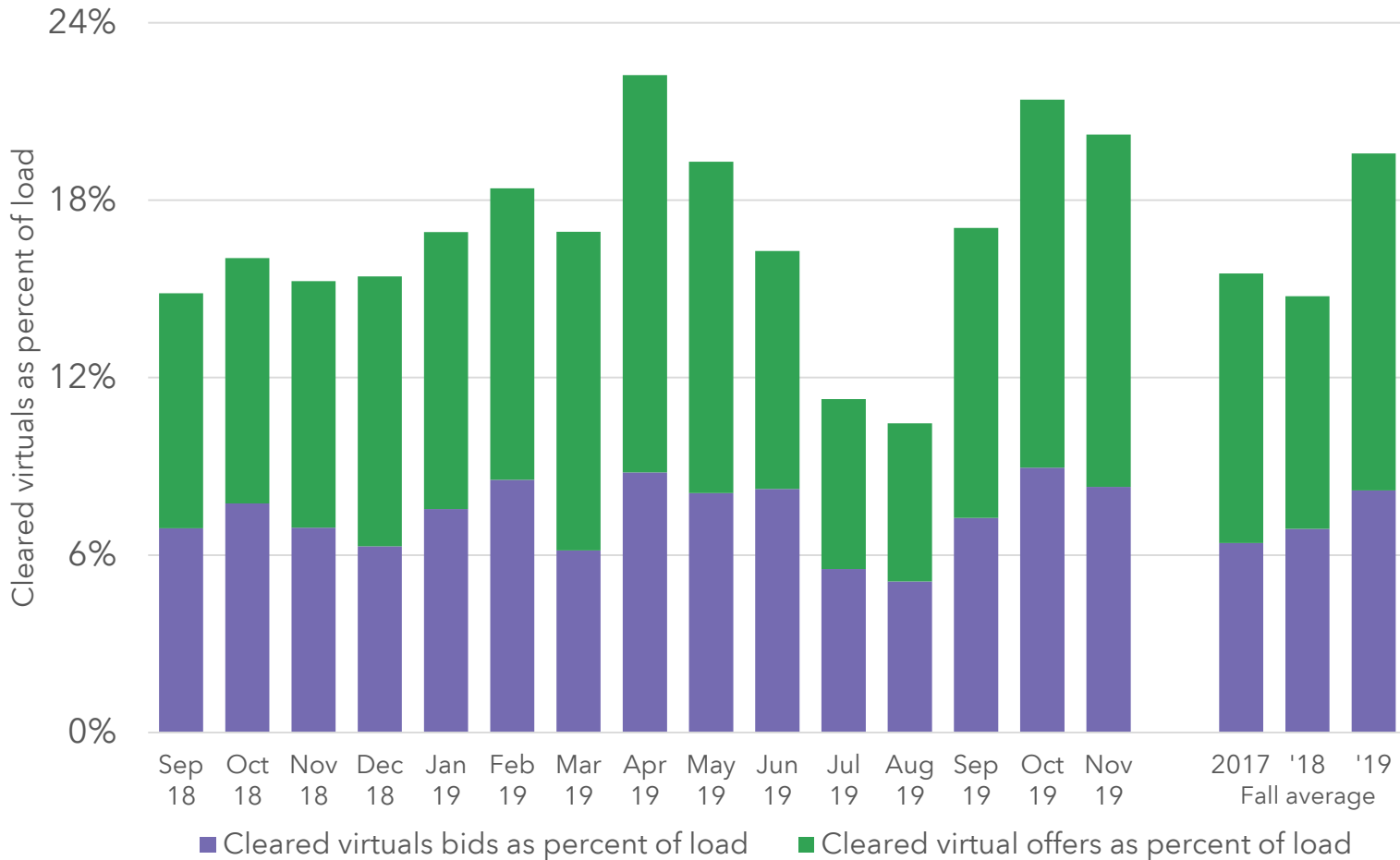
Prices vary across footprint



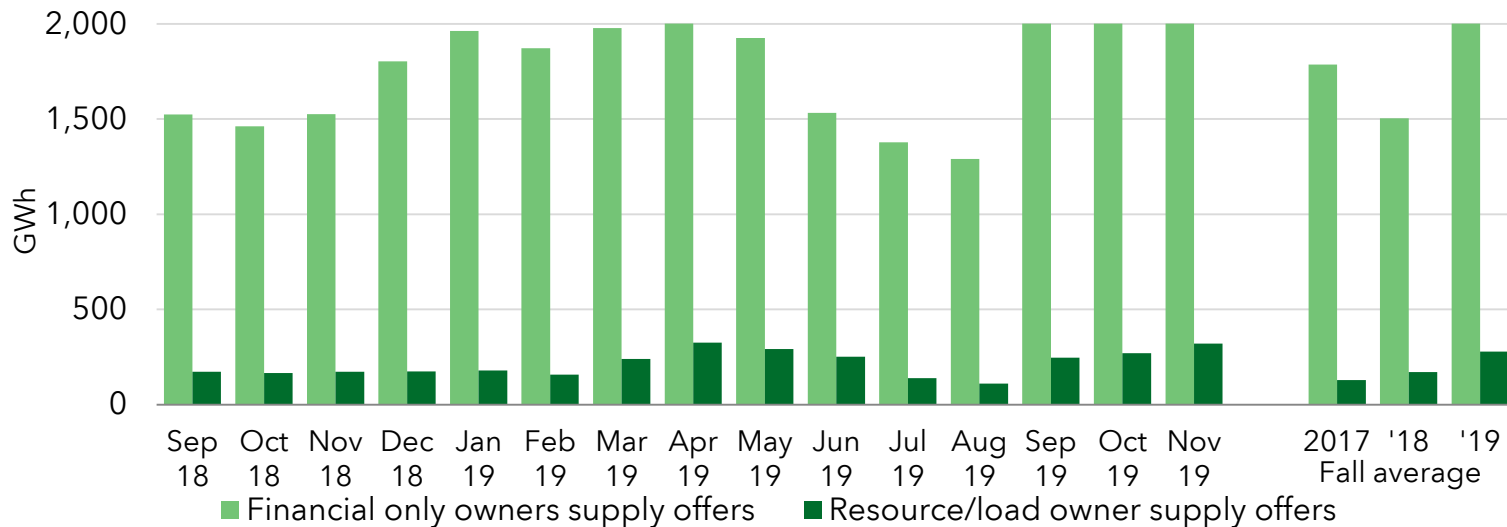
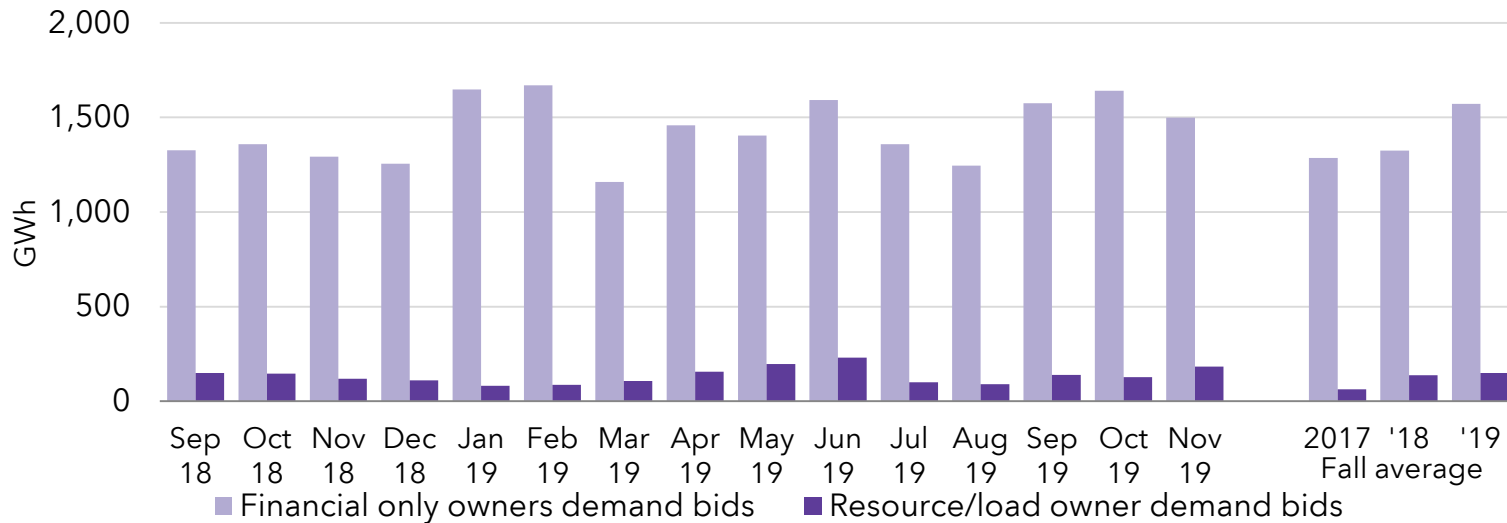
High congestion in Oklahoma



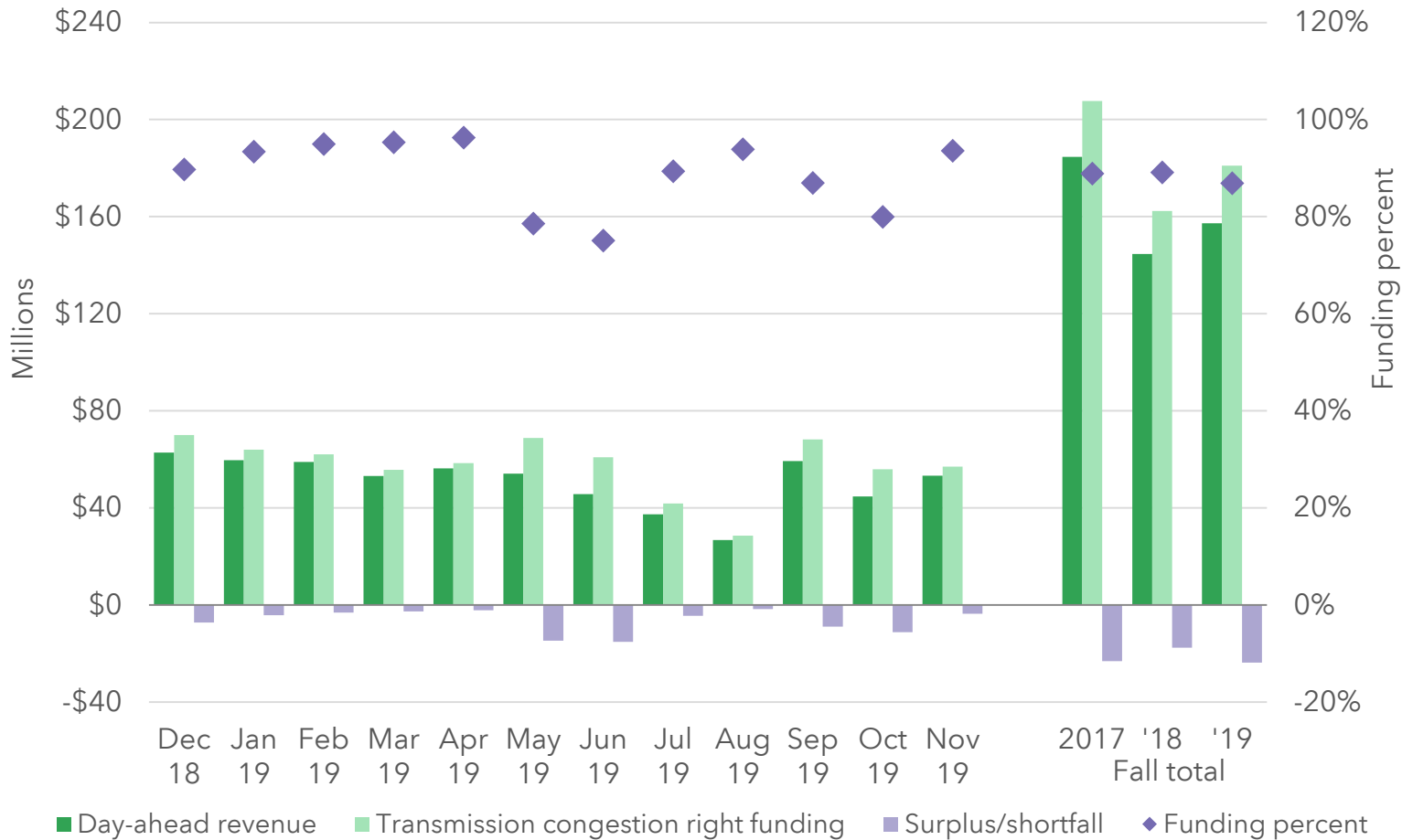
Virtual transactions continued to grow



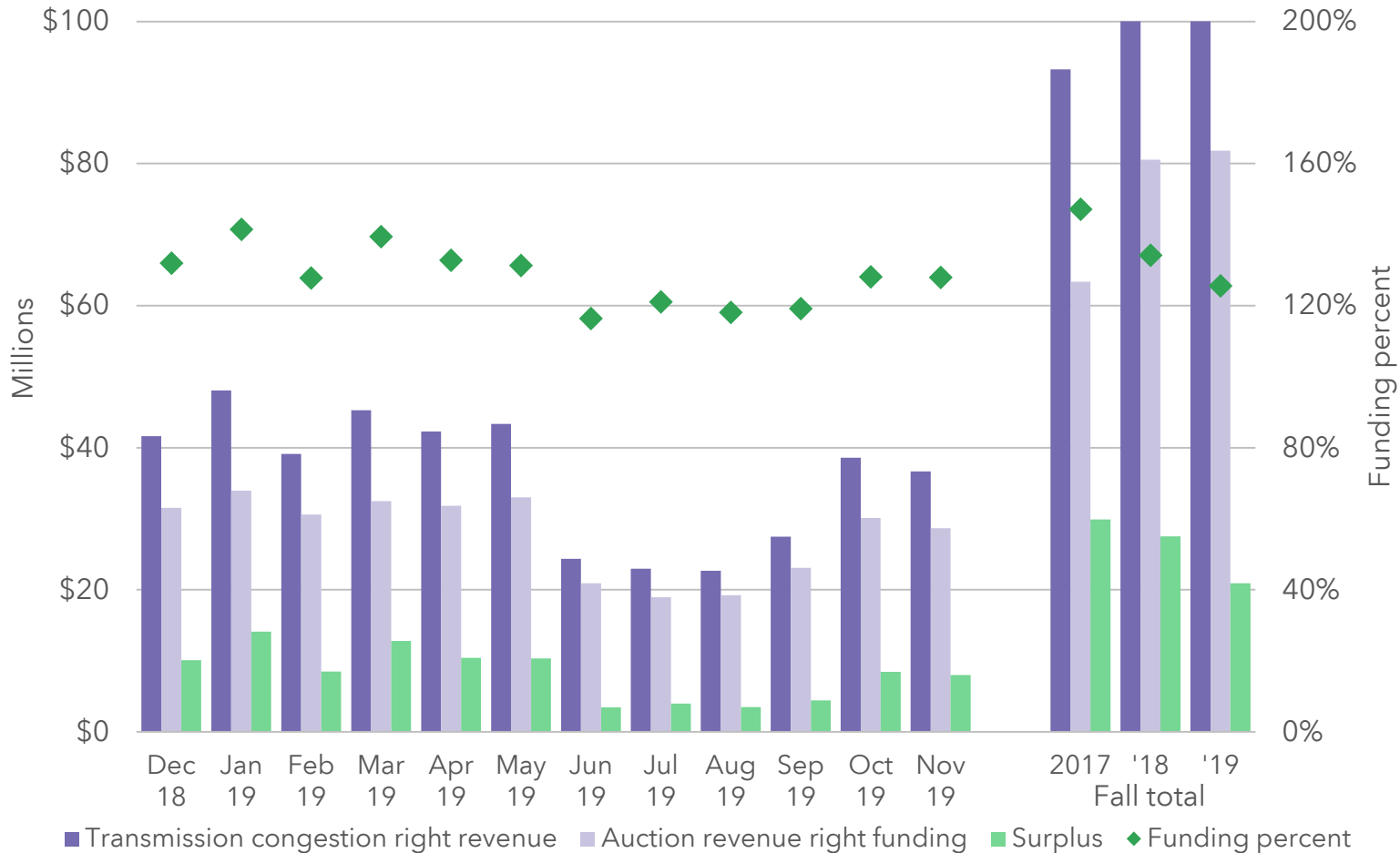
Most virtuals by financial-only participants



TCRs are underfunded



ARR funding



OMS-RSC Seams Discussion

Unreserved use

- Unreserved use charges
 - Transmission customer does not reserve adequate transmission service to cover its load obligation
 - Charges are punitive in nature
 - Can affect load on the seam during transmission outages
 - Charge could be assessed by neighboring transmission provider

Unreserved use

- Unreserved use analysis
 - SPP
 - January 2017 – June 2019: \$770,000
 - MISO
 - 2017 and 2018: \$610,000
- None of these charges were due to transmission outages on the seam

Rate pancaking

- Occurs when energy is scheduled across more than one transmission providers' borders and each provider assess transmission charges

Rate pancaking

- Analysis
 - Types of transmission used
 - Analyzed effects by modeling the reduction of duplicated transmission charges between SPP and MISO
 - Effects on production cost changes with redistribution of transmission charges

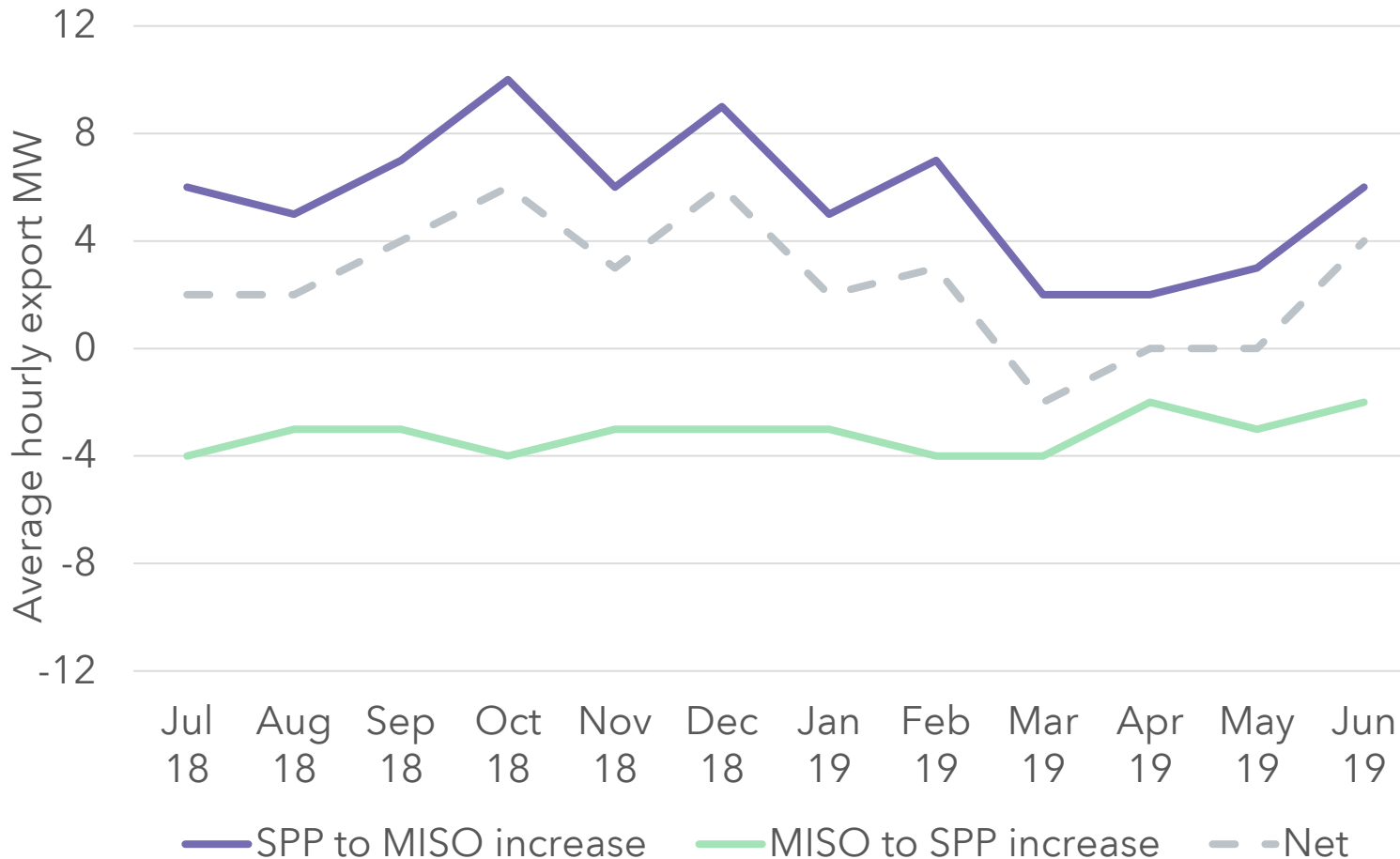
Real-time transmission scheduled

Transmission service type	SPP transmission		MISO transmission	
	SPP imports from MISO	SPP exports to MISO	MISO imports from SPP	MISO exports to SPP
Firm*	66%	74%	67%	57%
MIS** / Spot-In	31%	n/a	33%	n/a
Non-firm Hourly	2%	18%	0%	42%
Non-firm Secondary	1%	8%	0%	<1%

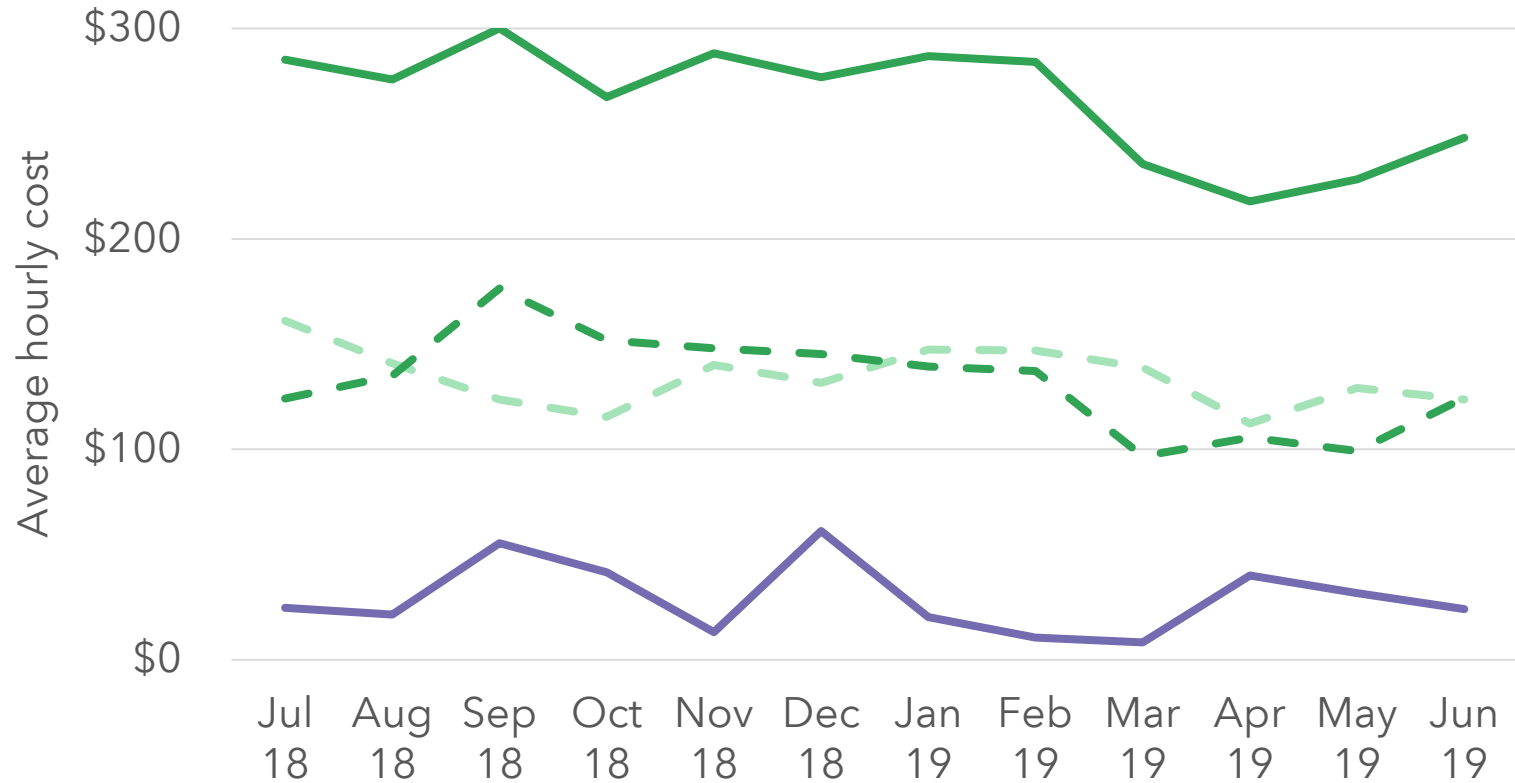
* Firm includes grandfathered service/agreements

** Market Import Service

Estimated import/export change



Estimated production cost change



- - - Redistribution of transmission fees: exports SPP to MISO
- - - Redistribution of transmission fees: imports MISO to SPP
- Redistribution of transmission fees: total
- Production cost change

Notes

- Rate Pancaking and Unreserved Use Study found here;

<https://www.spp.org/Documents/60995/SPP%20MMU%20Rate%20Pancaking%20and%20Unreserved%20Use.pdf>

Questions?