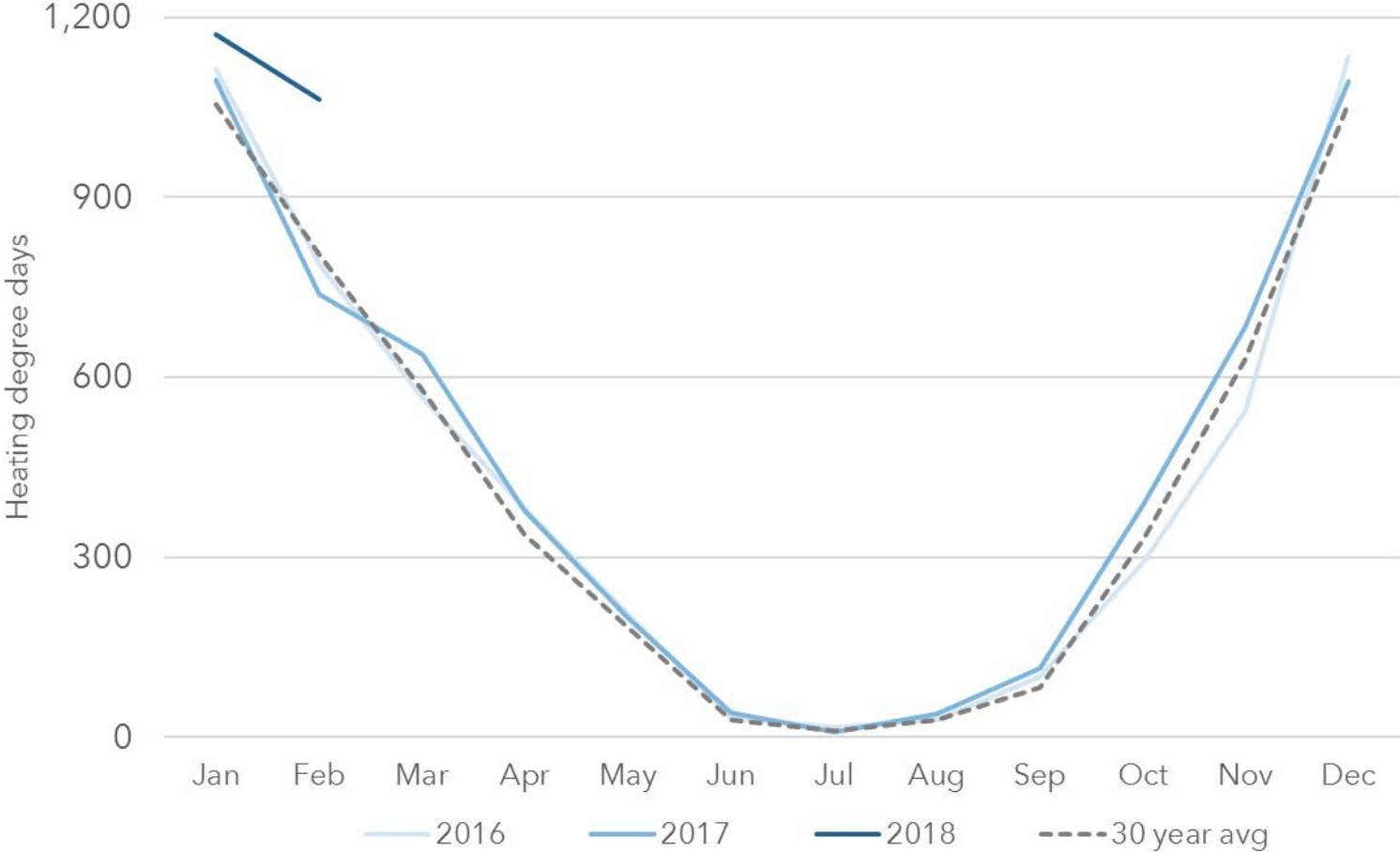


Market Monitoring Unit

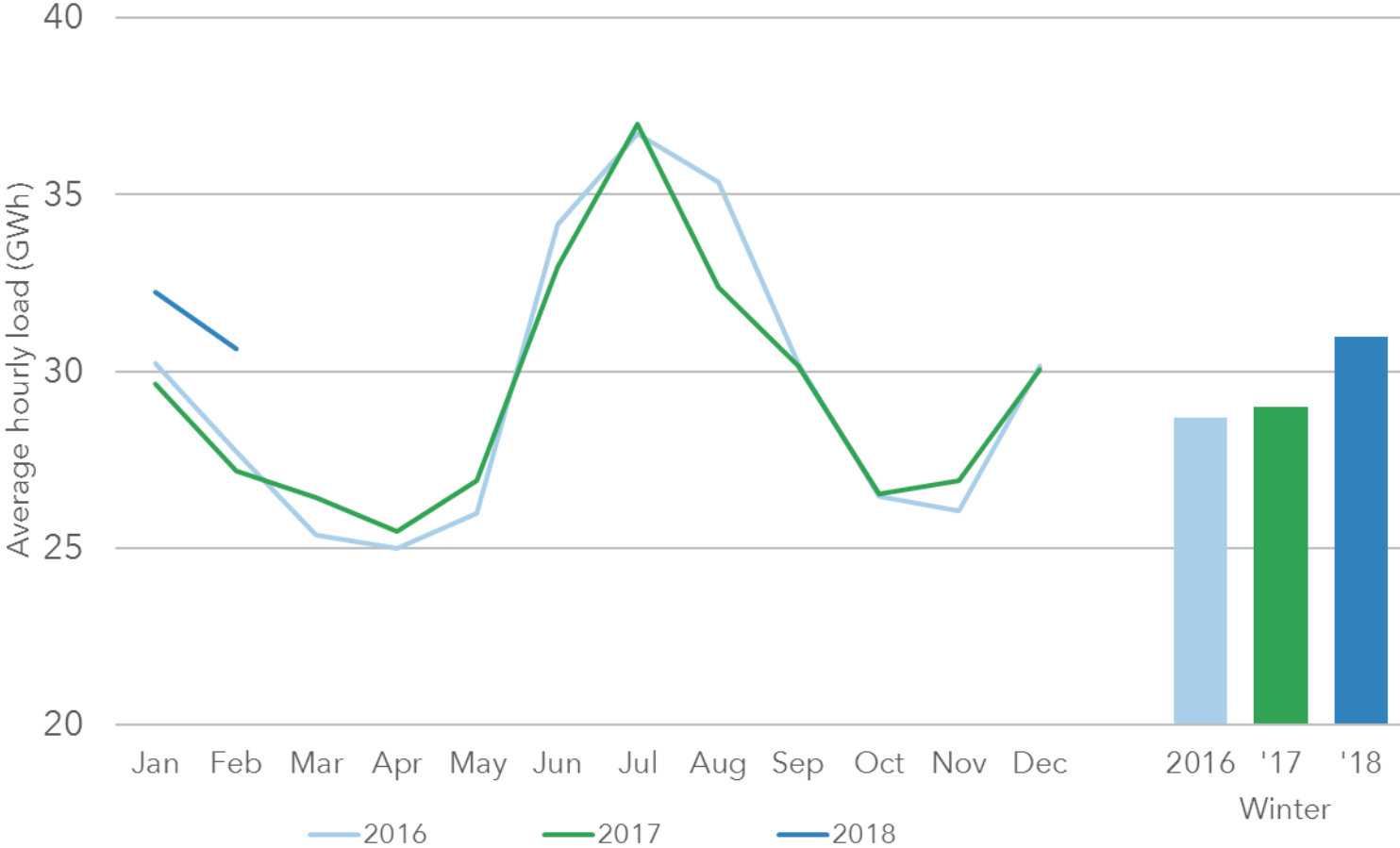
Winter 2018

Quarterly Report

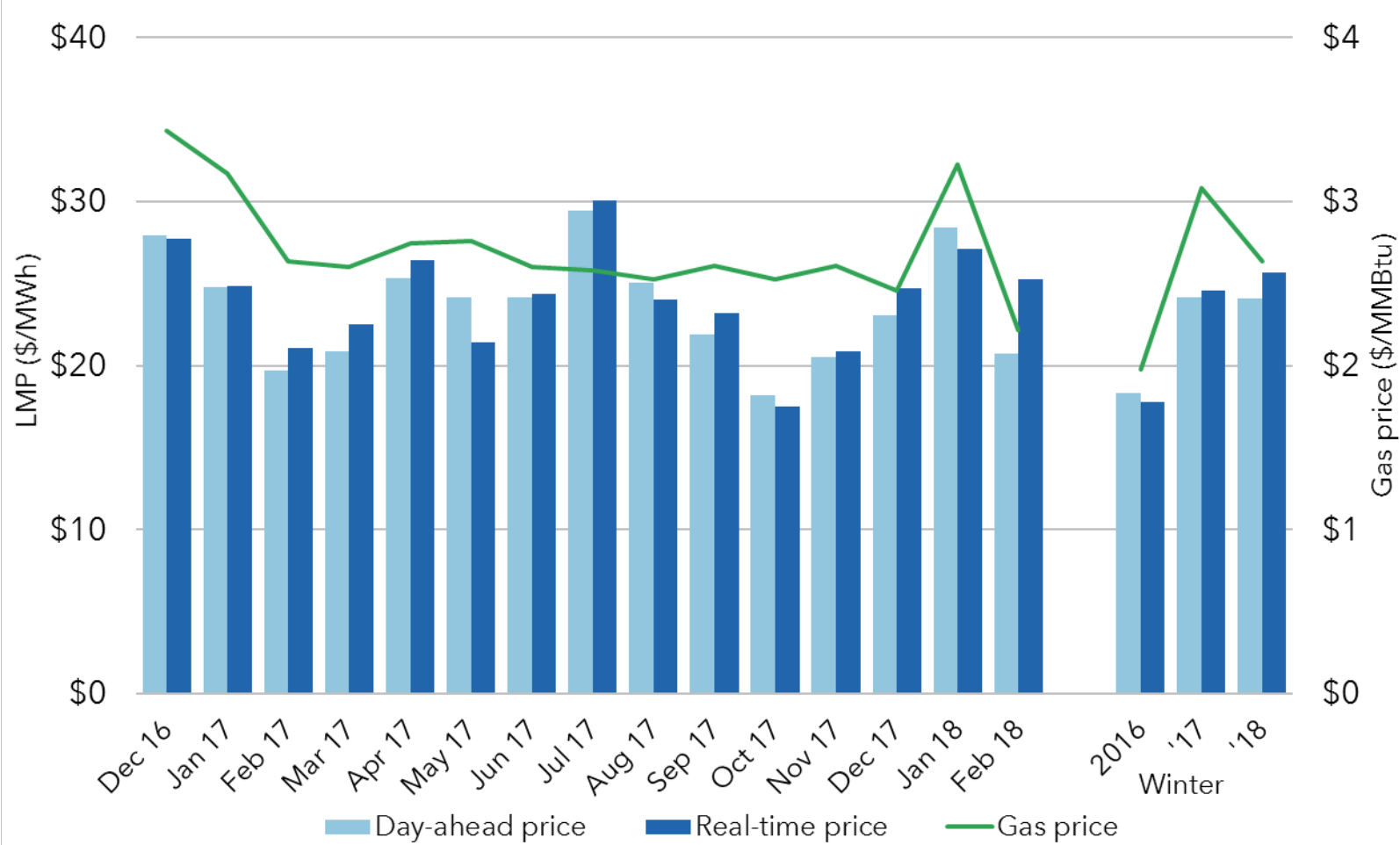
Colder temperatures in early 2018



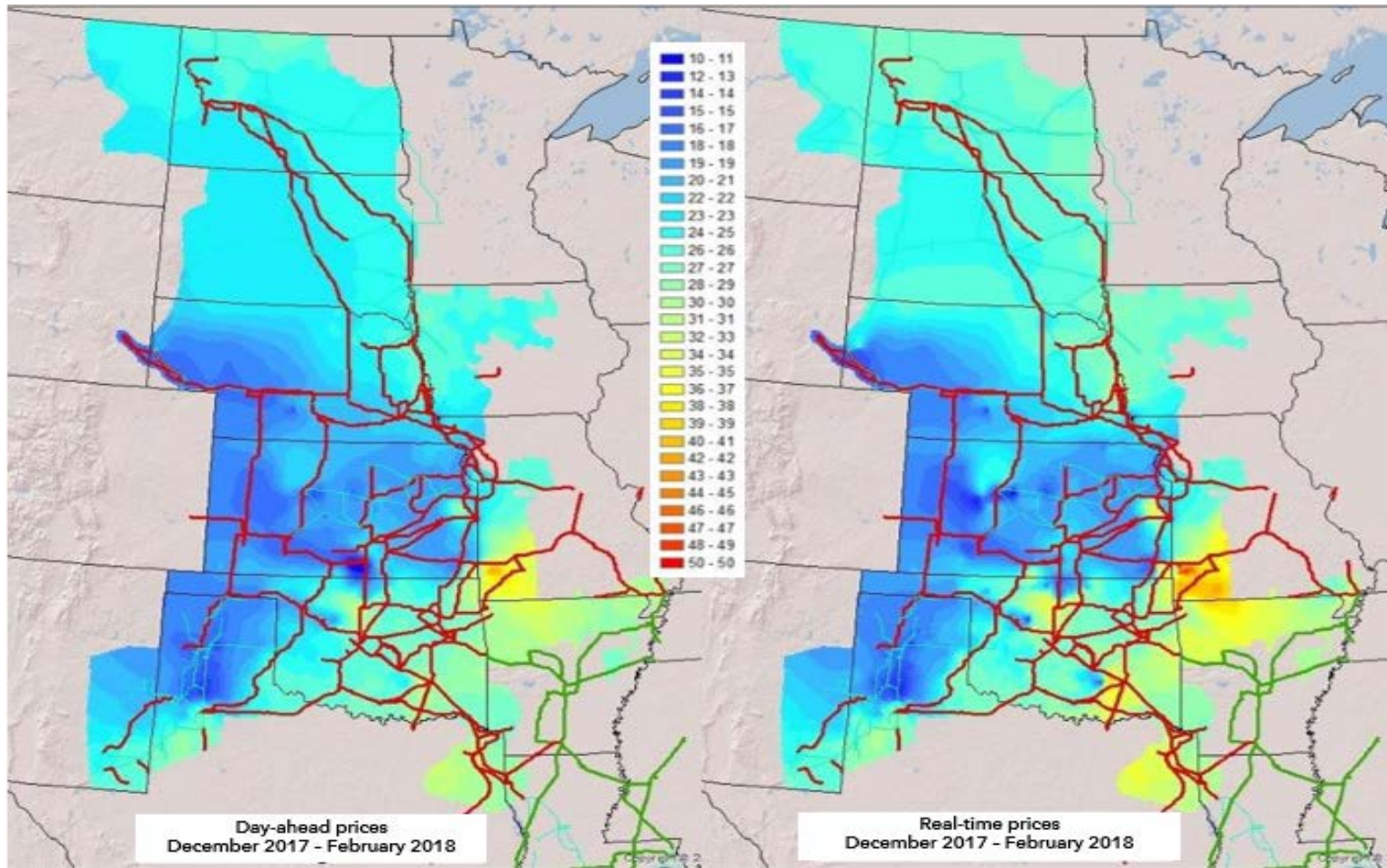
Load increase in early 2018



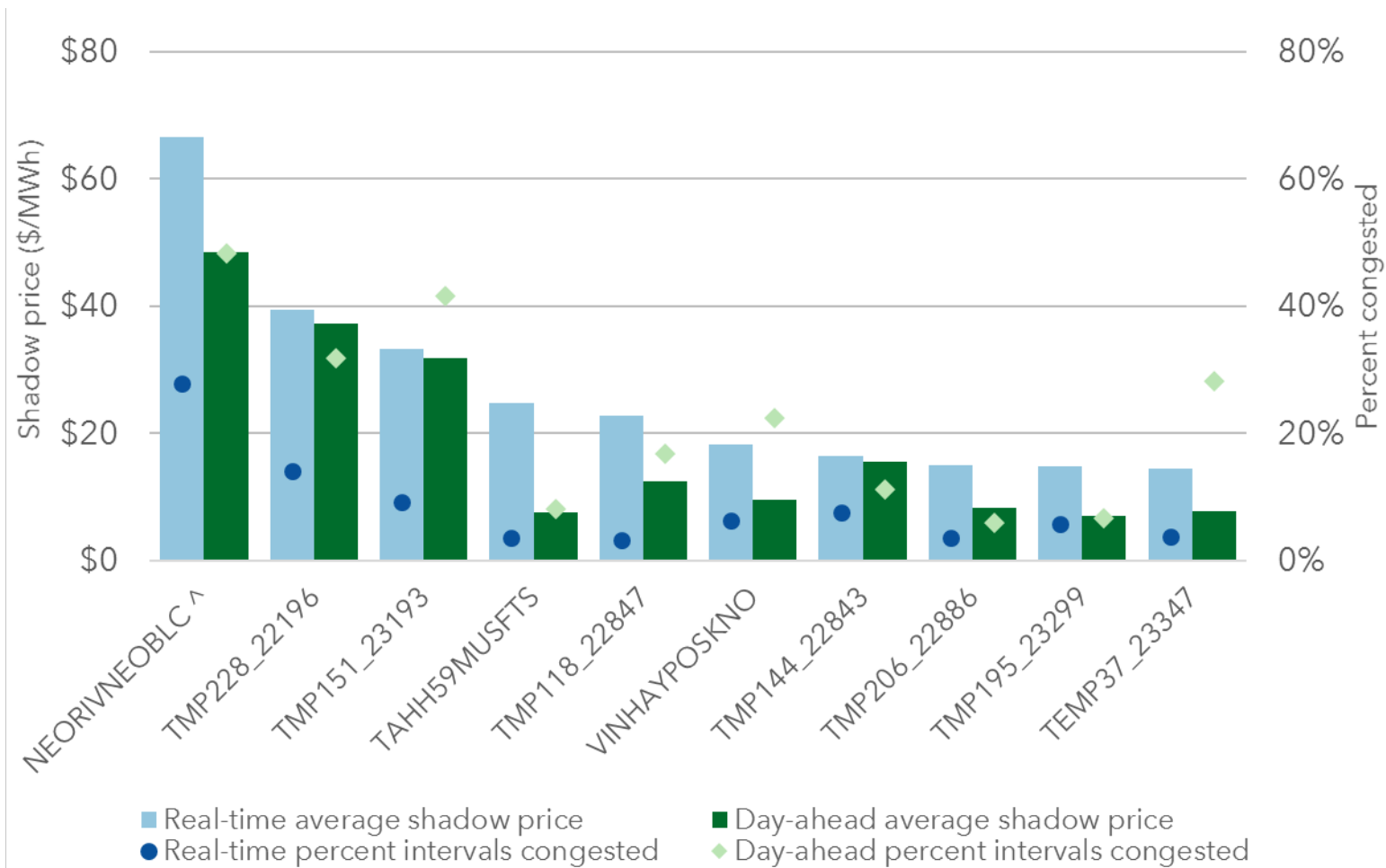
Prices remained low



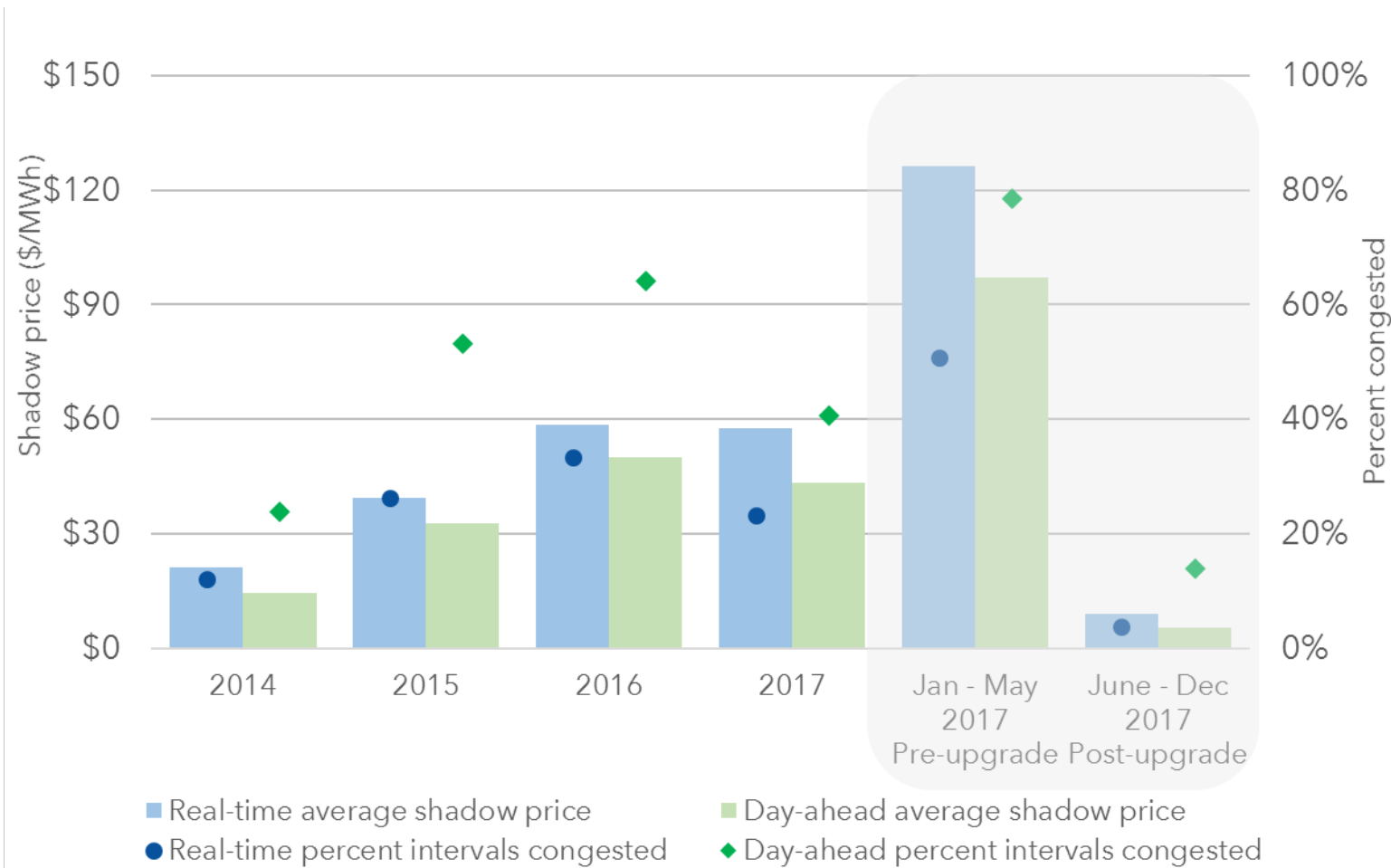
Congestion pattern similar between markets



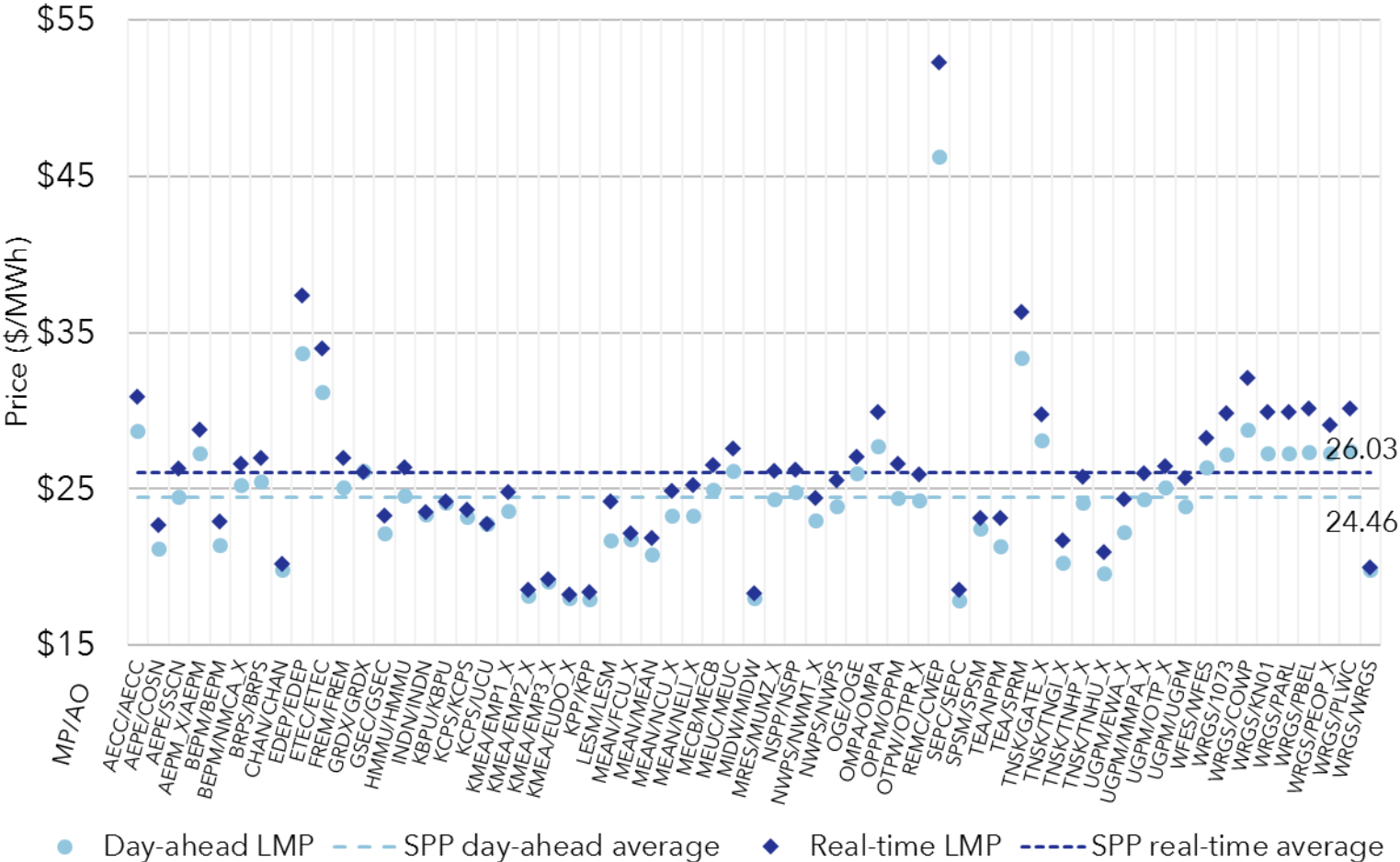
High congestion at Neosho - Riverton constraint



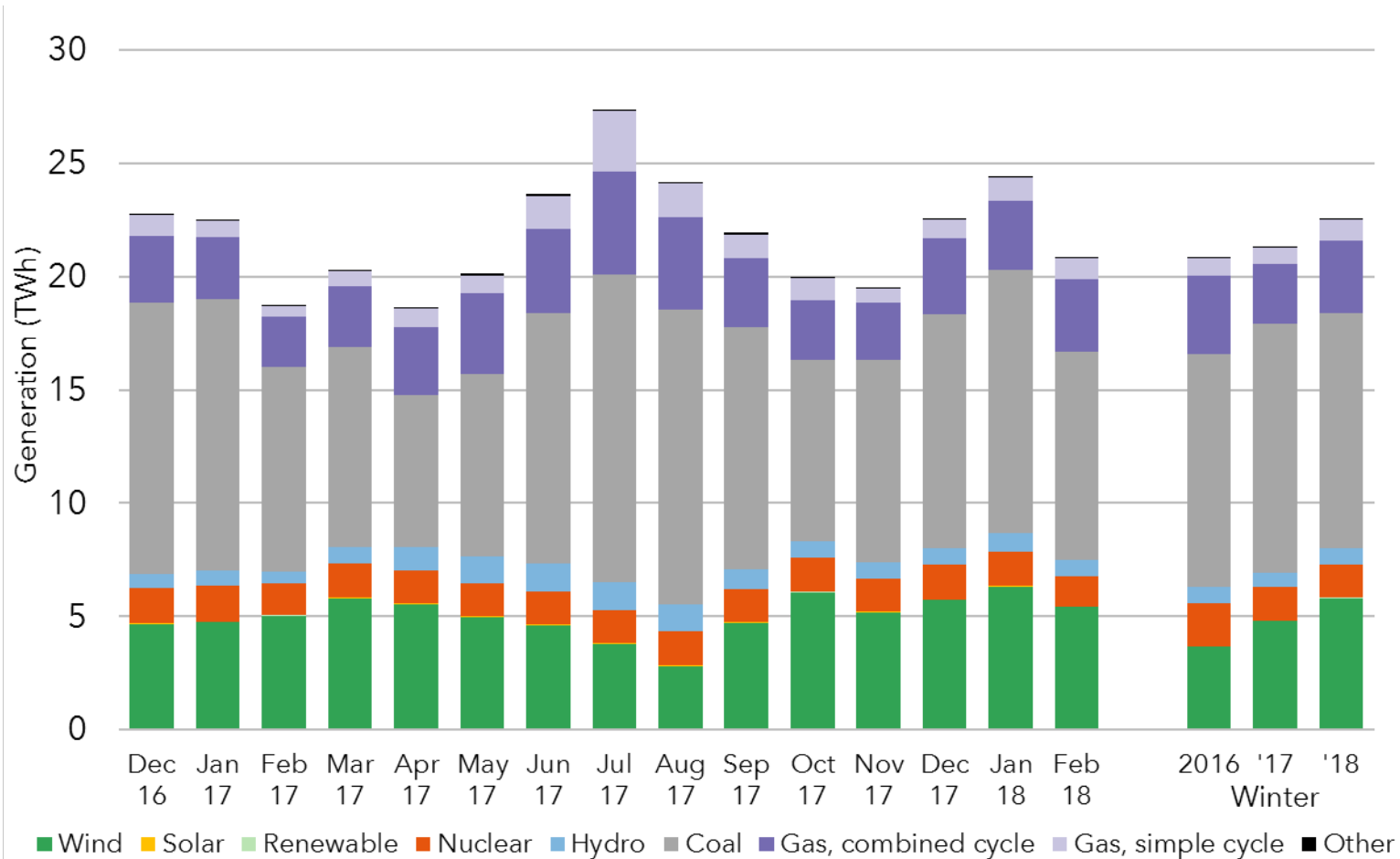
Congestion at Woodward has abated since equipment upgrade



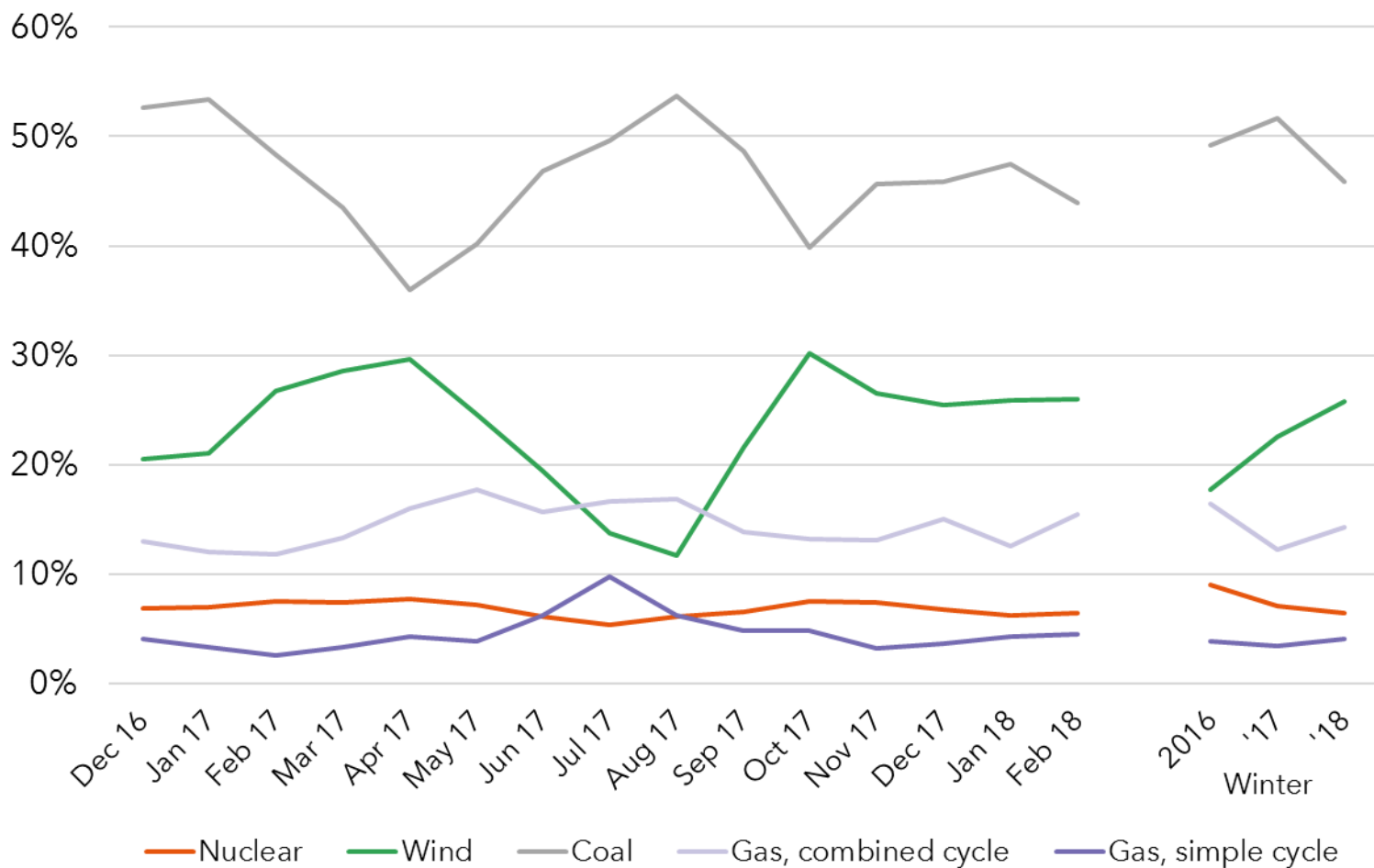
Prices vary across footprint



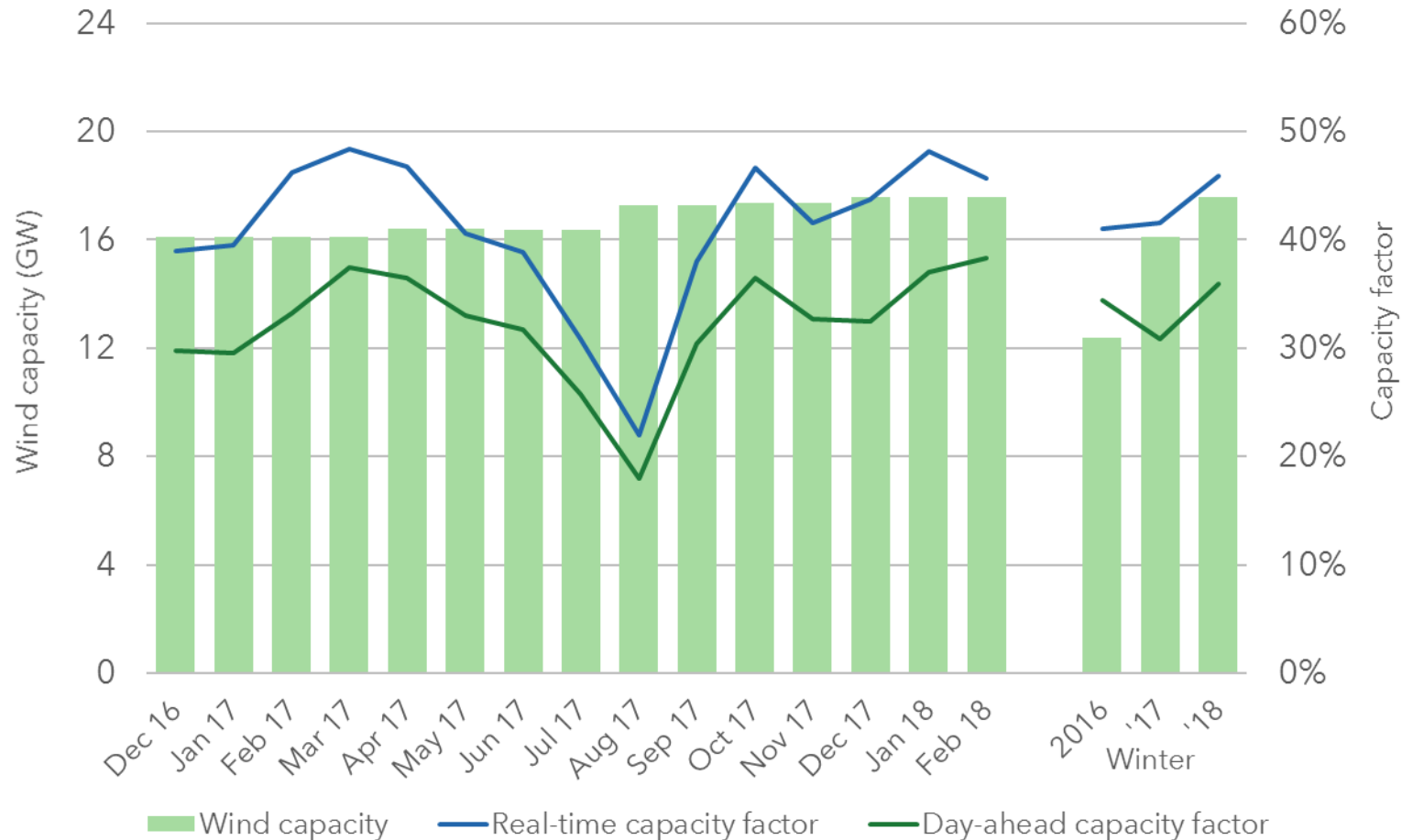
Total generation increasing due to increased load



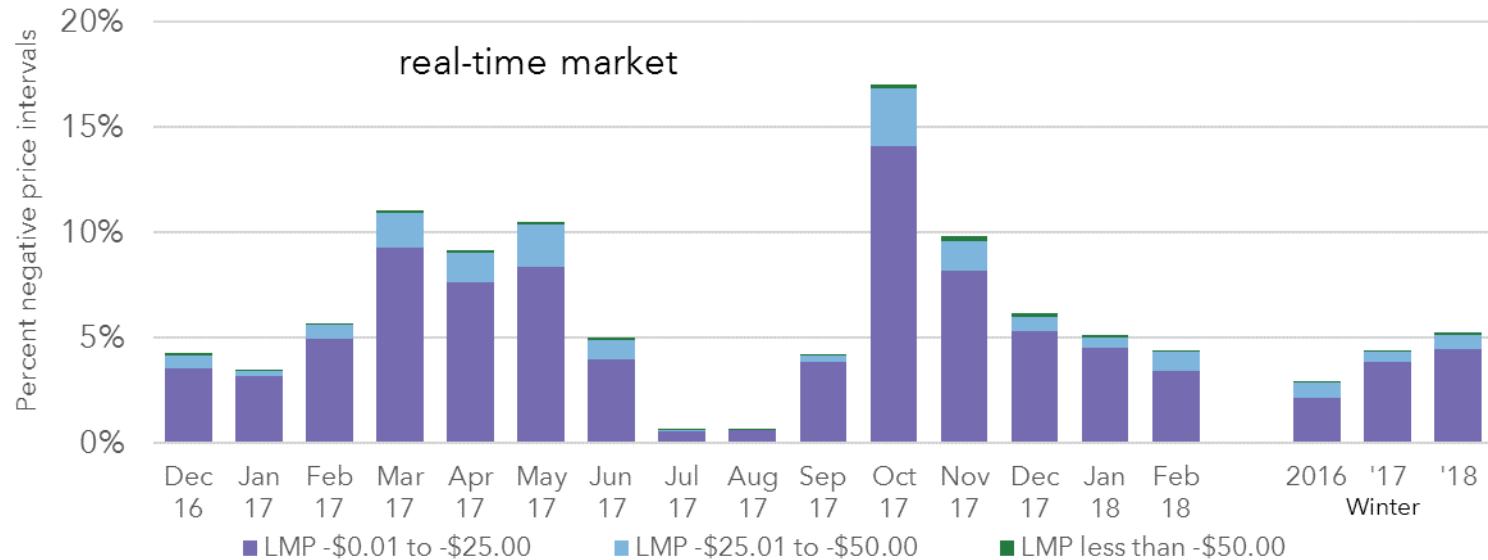
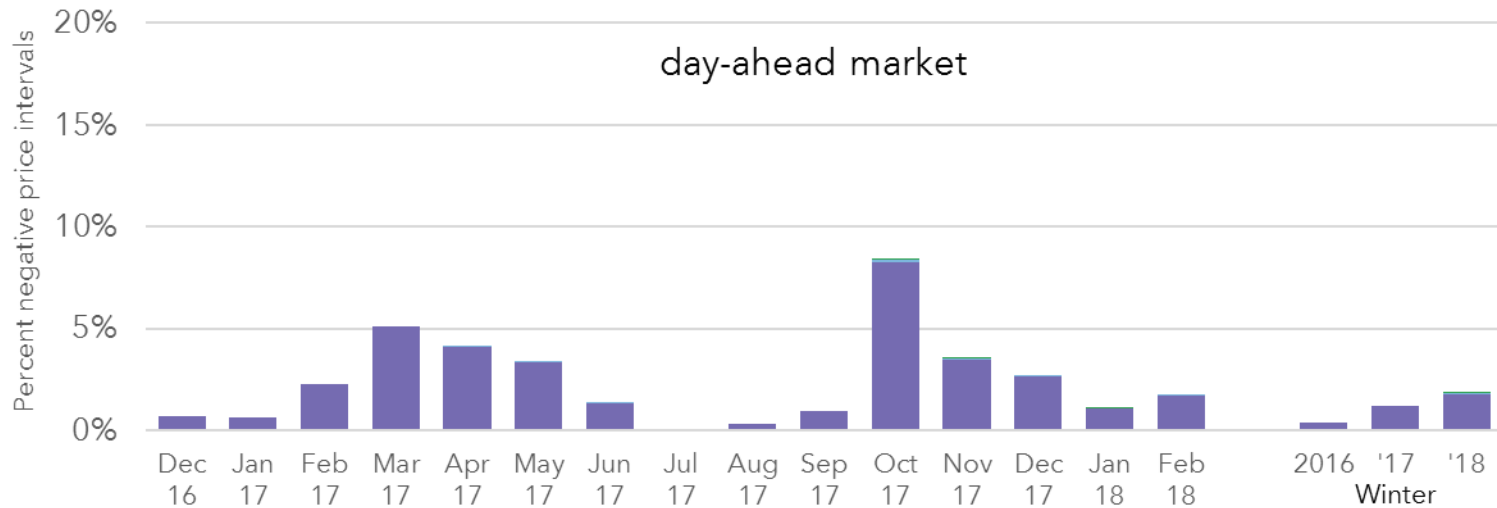
Coal generation declining, while wind generation is growing



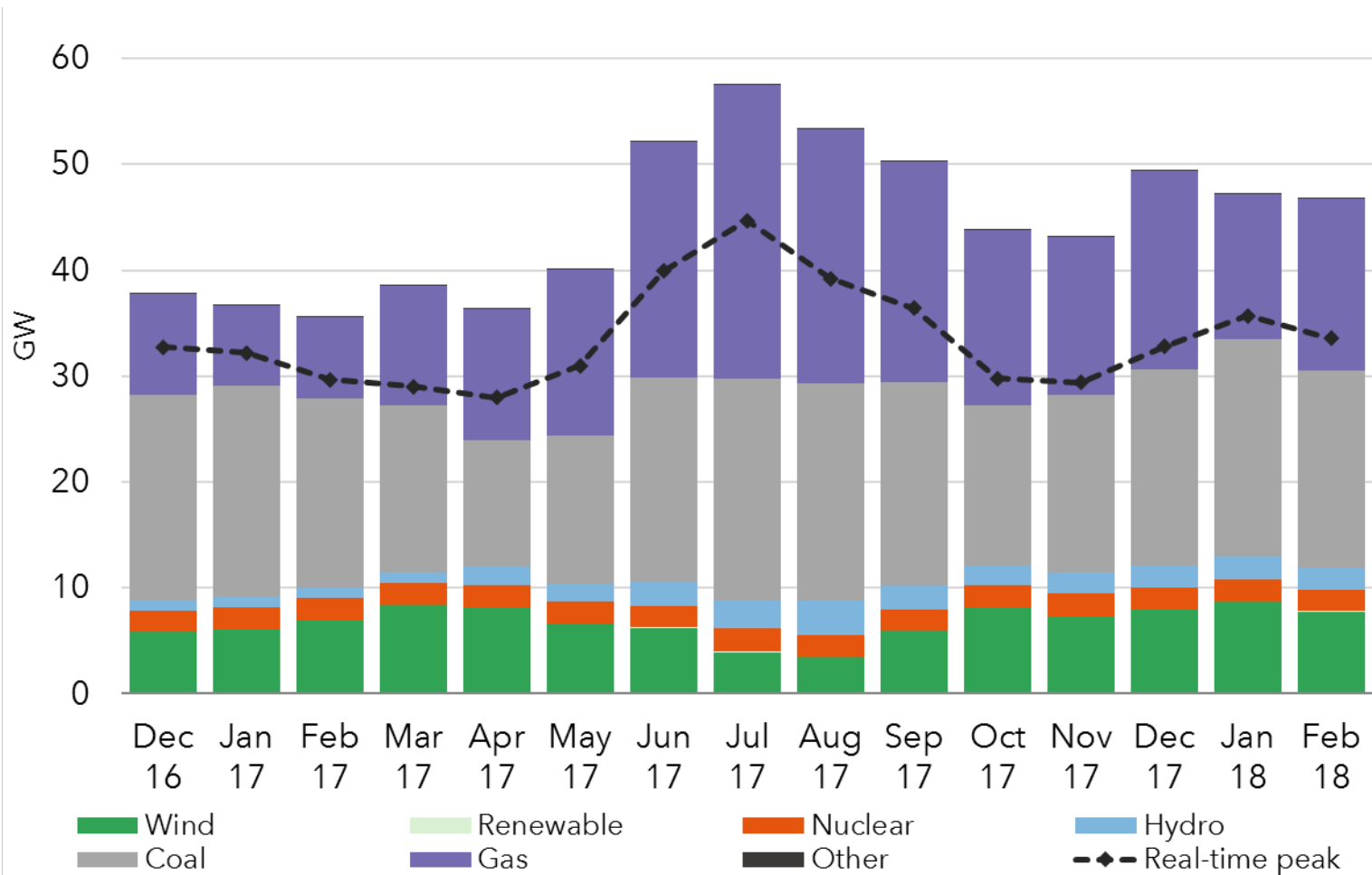
Wind capacity continues to grow



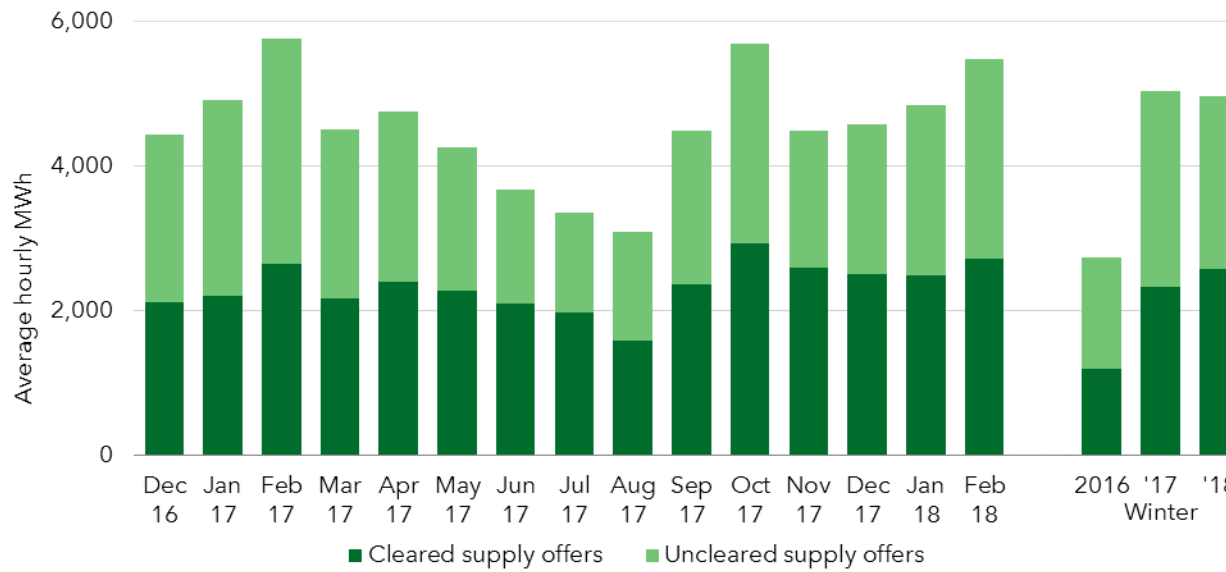
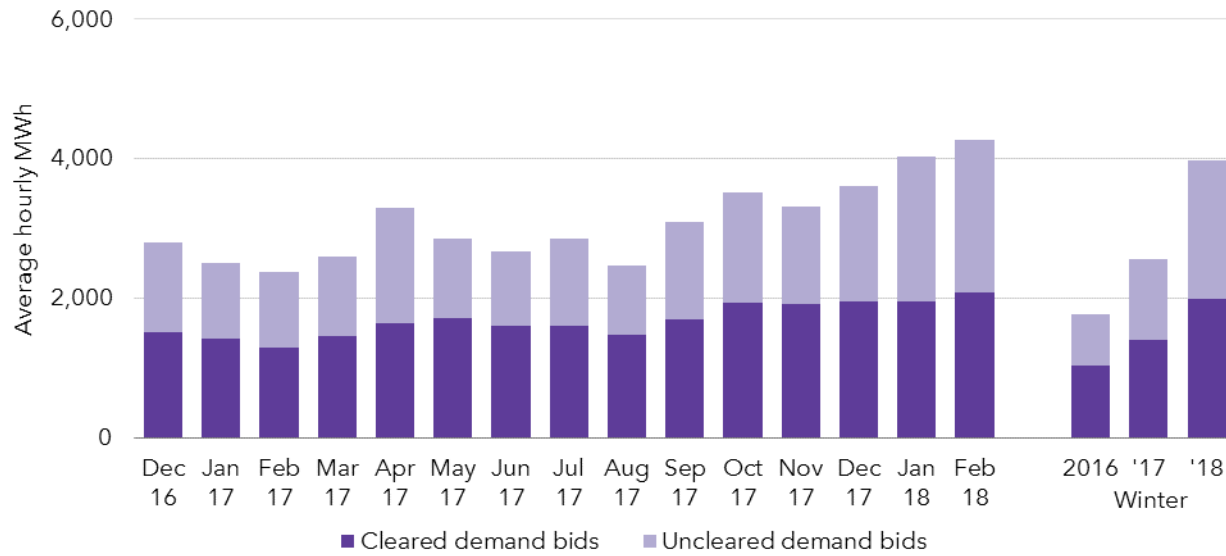
Negative price intervals continue to increase



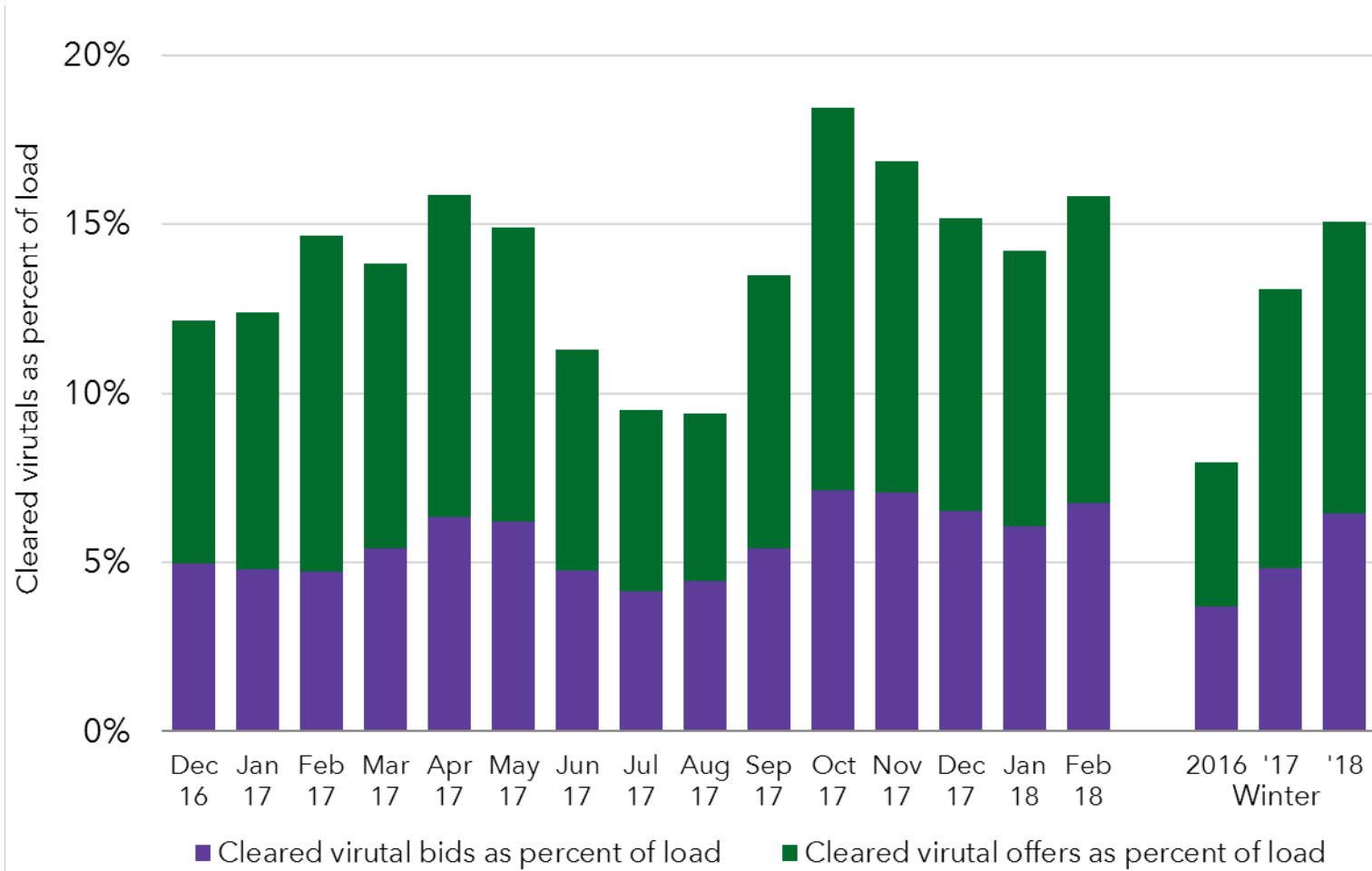
Coal and gas remain largest portion of unit commitment



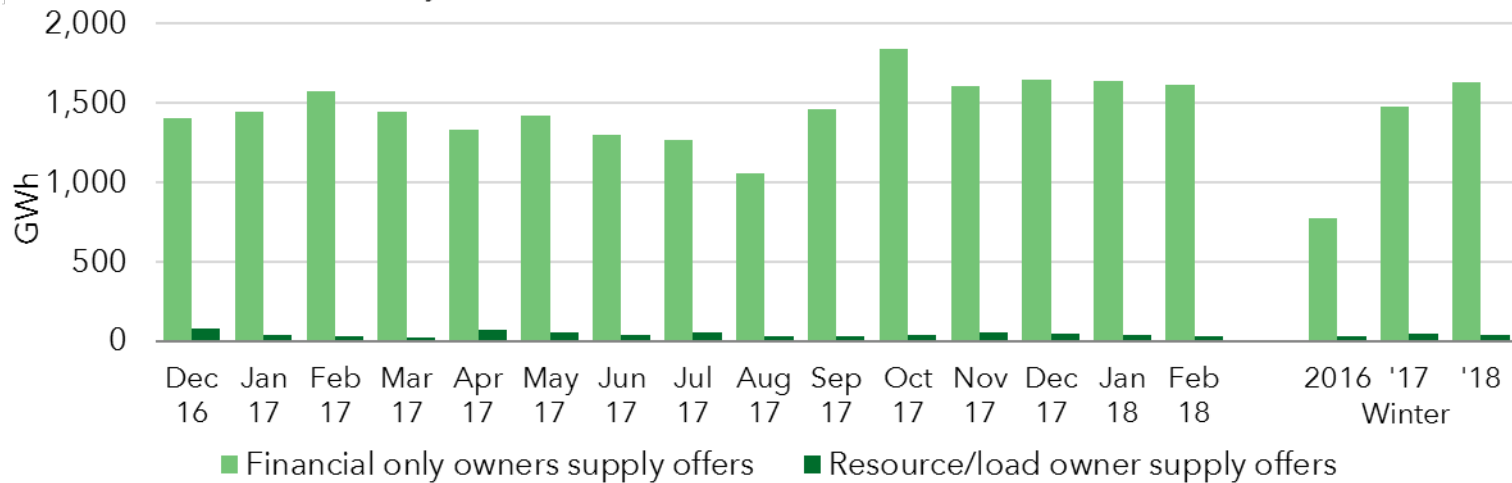
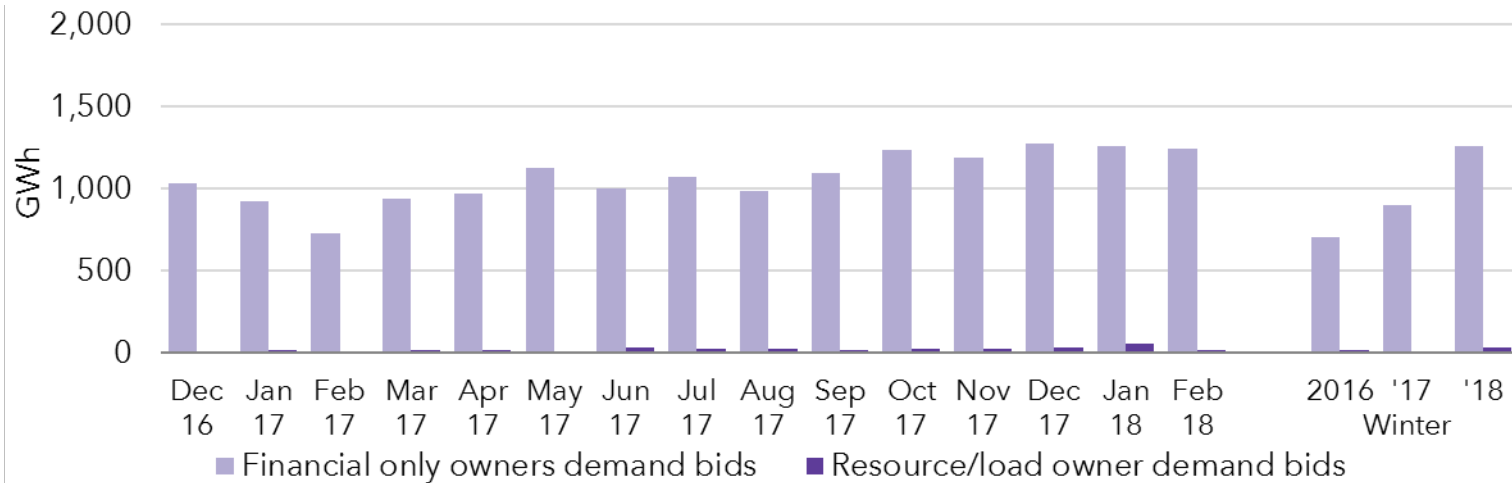
Virtual transactions continue to grow



Virtual transactions compared to load increasing



Most virtual transactions done by financial only participants



Winter conditions

- New wind peak
- High natural gas prices
- New winter peak load
- Wind turbine icing conditions

Summary

- Colder temperatures and higher loads in early 2018
- Coal generation declined, while wind generation grew
- Virtual transactions continued to grow
- Winter conditions

Questions?