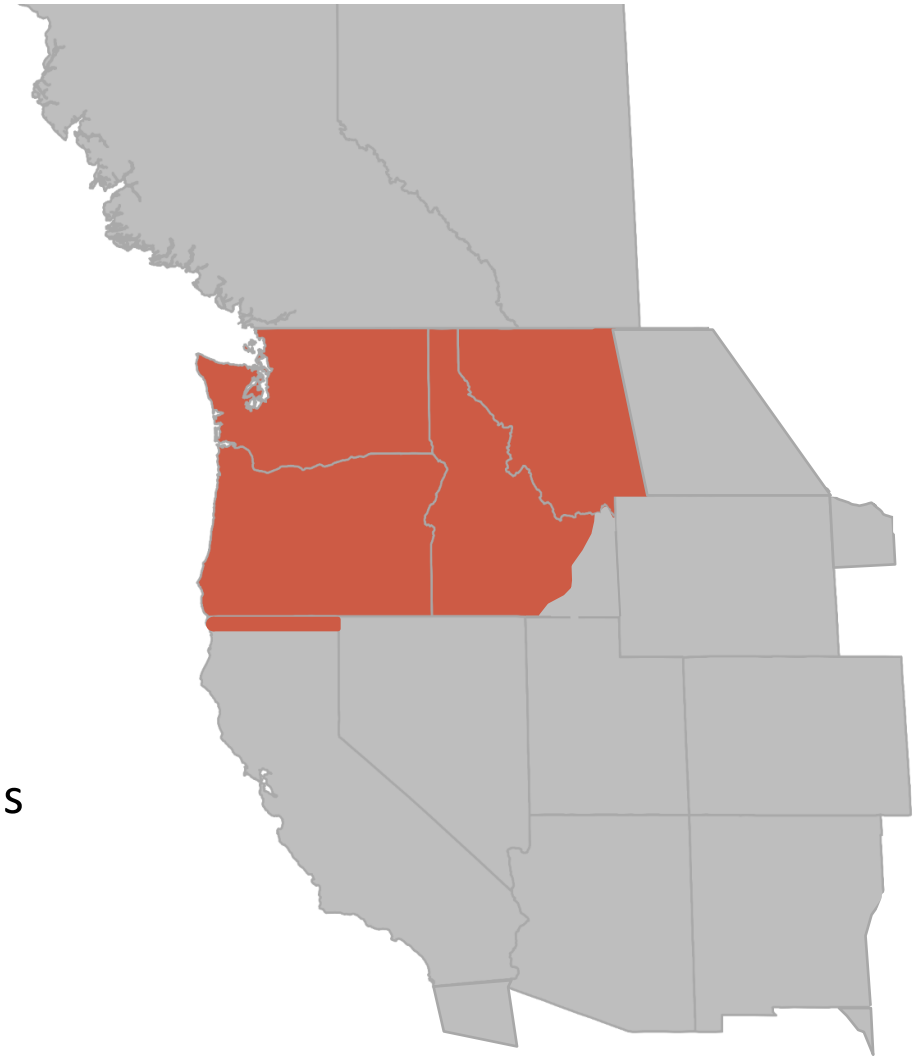
2021 Northwest Regional Forecast

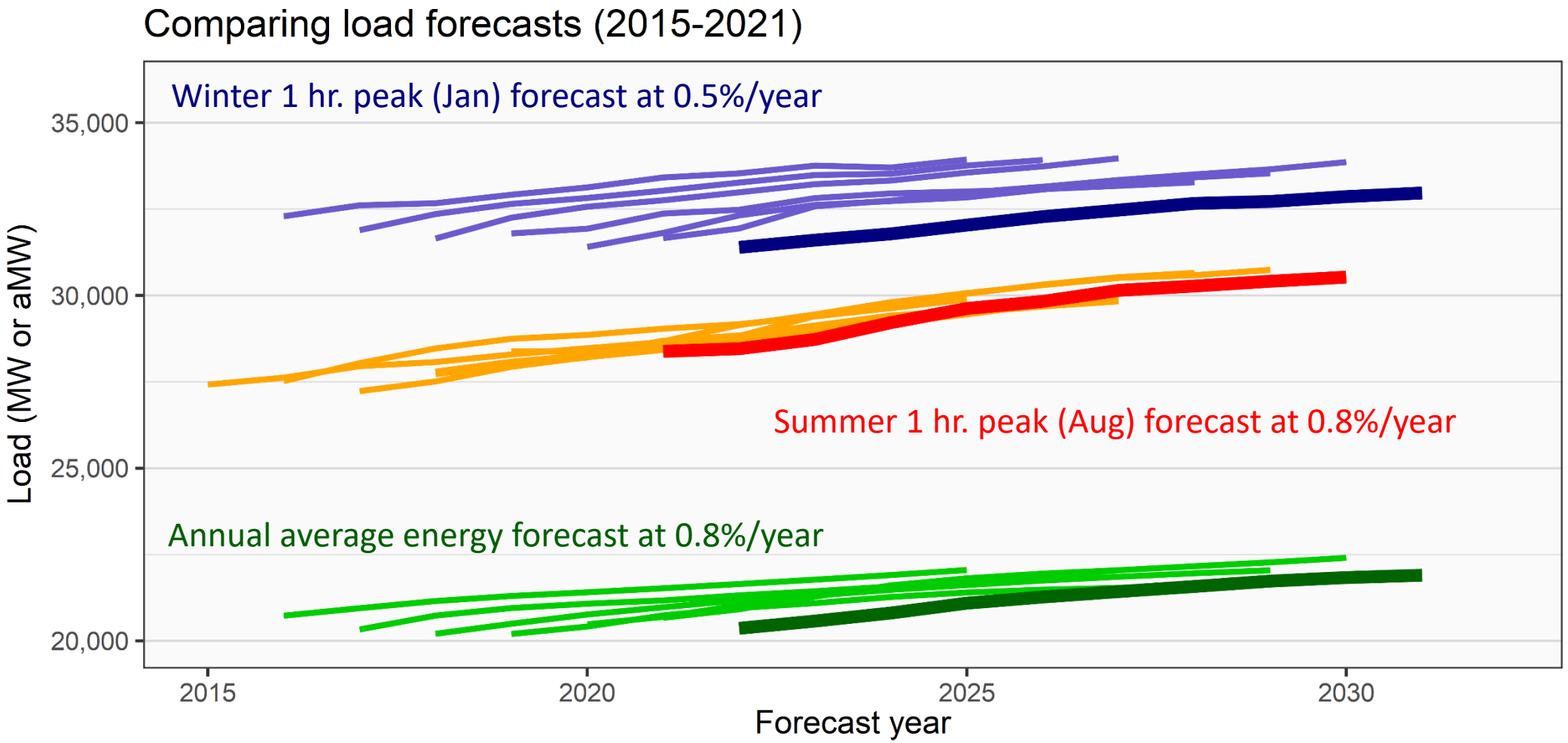
May 11, 2021

PNUCC *Northwest Regional Forecast*

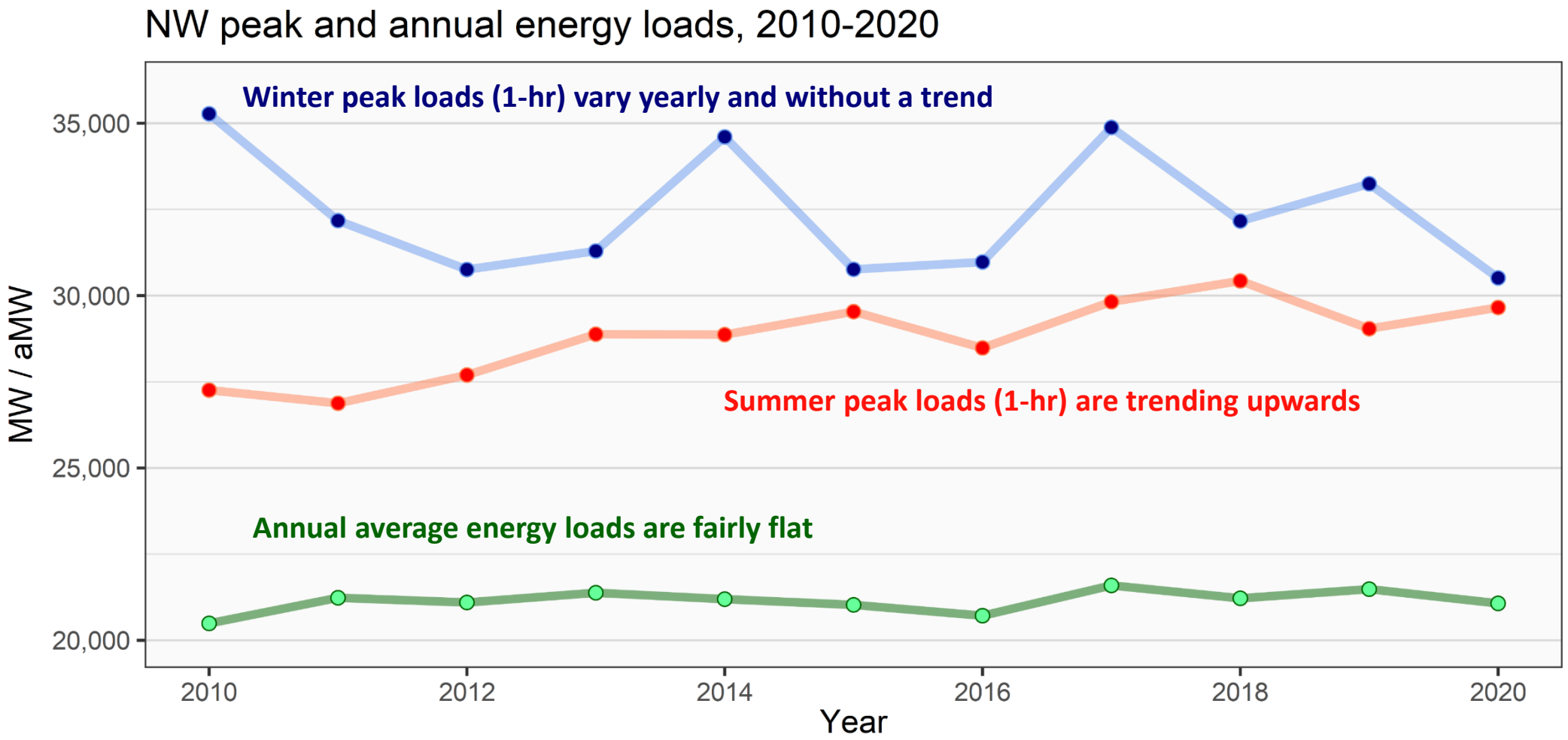
- Aggregates utility data in ~Power Act footprint
  - Over 100 utilities, with smaller utilities reporting via BPA
- Requirements reflect
  - 1-in-2 loads after energy efficiency, firm exports, a 16% planning margin for peak
- Resources include
  - Expected generation from utility owned/contracted resources, long-term imports, hydro under critical water conditions (8% for peak), no short-term market transactions
- A power system barometer
  - Does not provide an exact need for power



Loads: Summer growth tracking, winter resets again



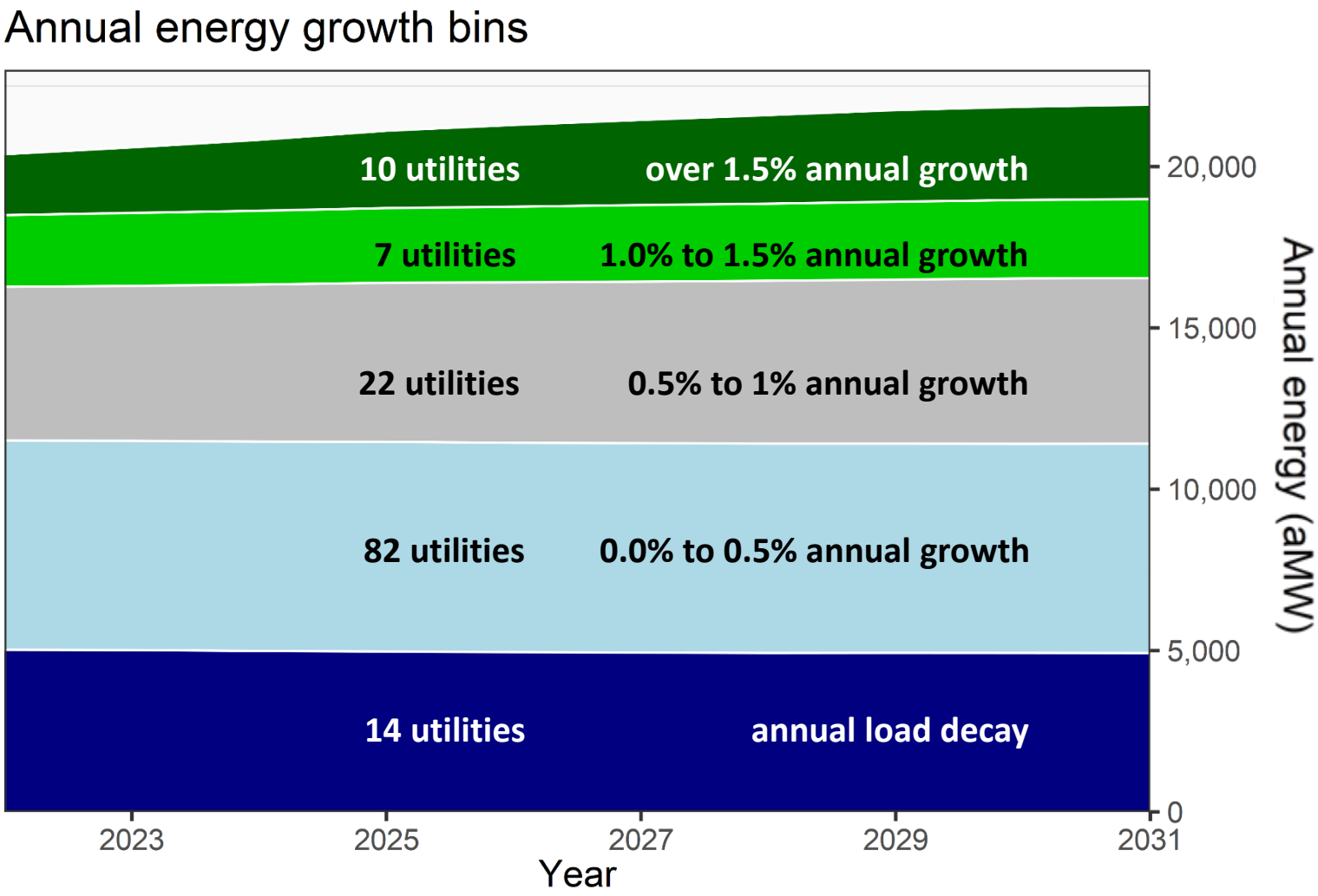
Historical load review



Slightly larger footprint than the NRF; not adjusted for weather; * 2020 values are estimates

Load growth expectations vary

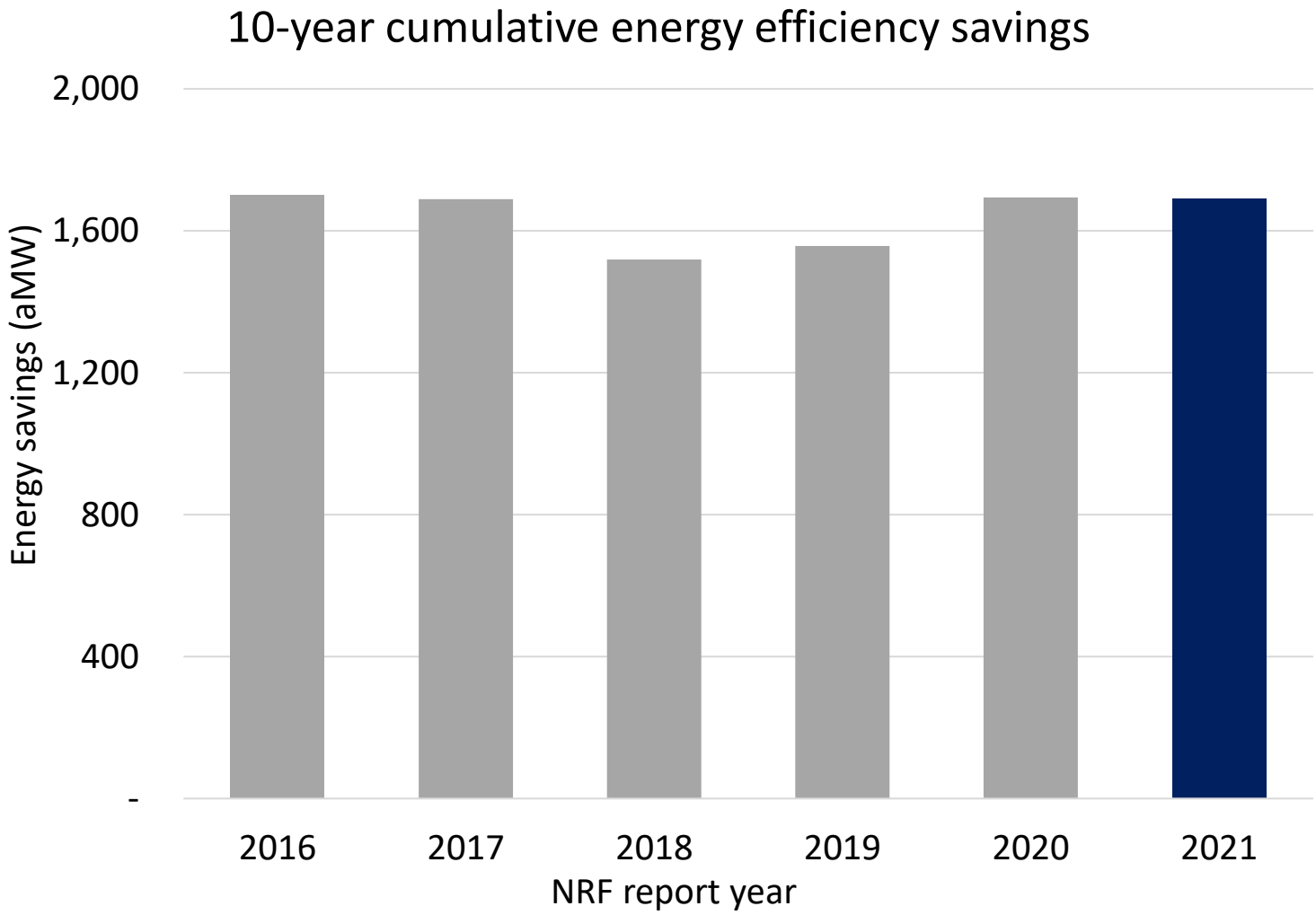
Most utilities forecasting growth at or under 0.5% per year



Energy efficiency remains a priority

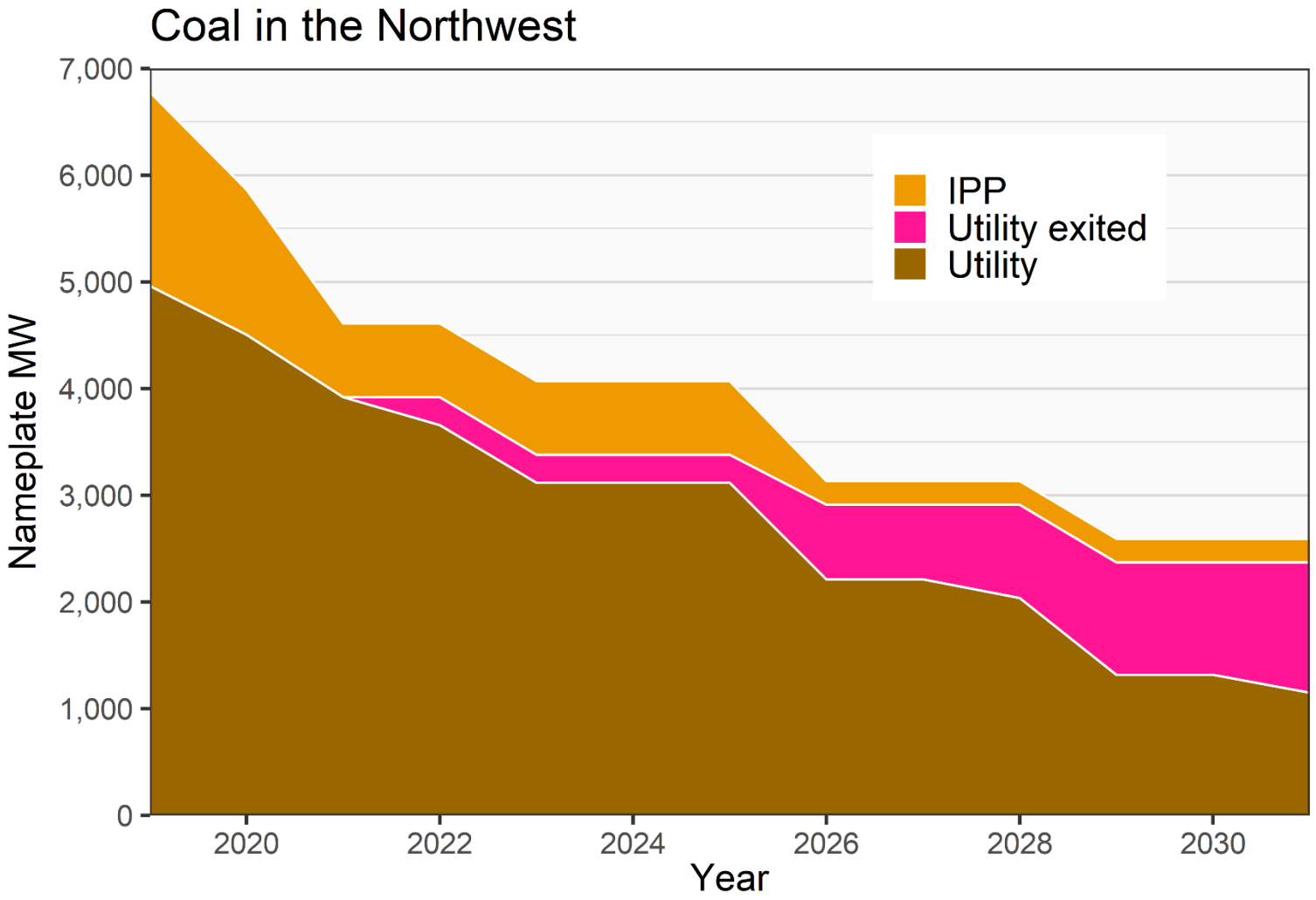
Steady levels of energy efficiency acquisitions over past six reports

Around 300 MW of new DR expected in next ten years (see extra slides)



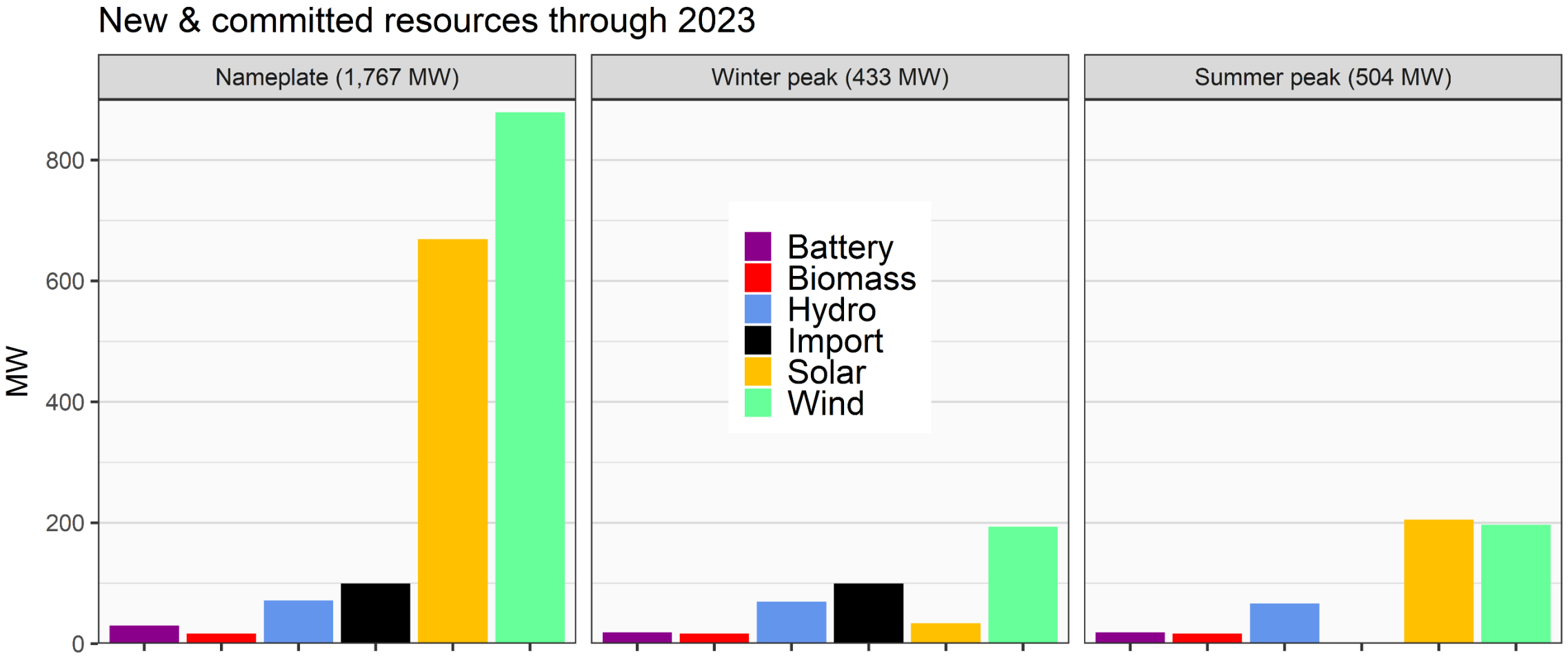
NRF EE values historically lower than Council retrospective estimates

Utilities exiting Northwest coal units



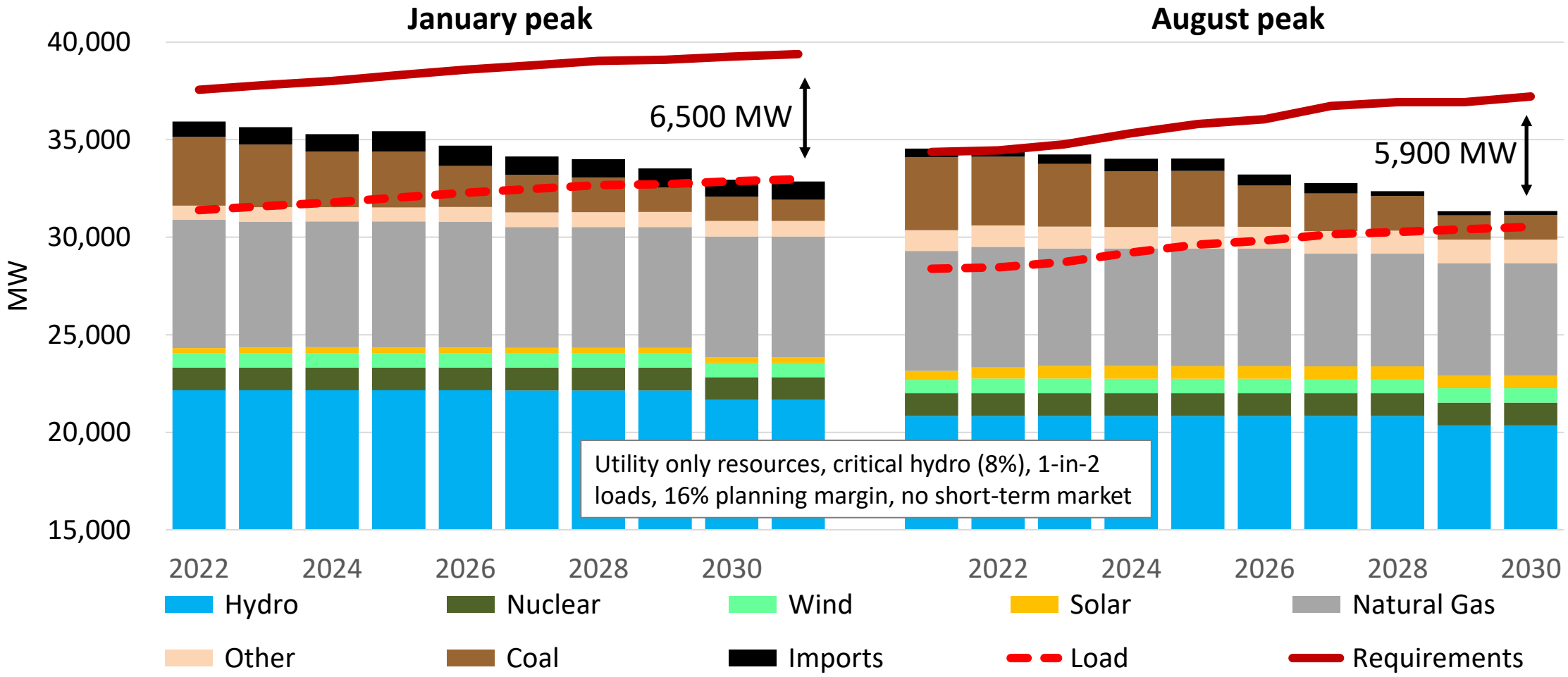
Utilities planning to exit coal units without a retirement date shown in pink

Newest supply additions mostly wind & solar



Resources included in the load/resource balance

Peak load/resource balance



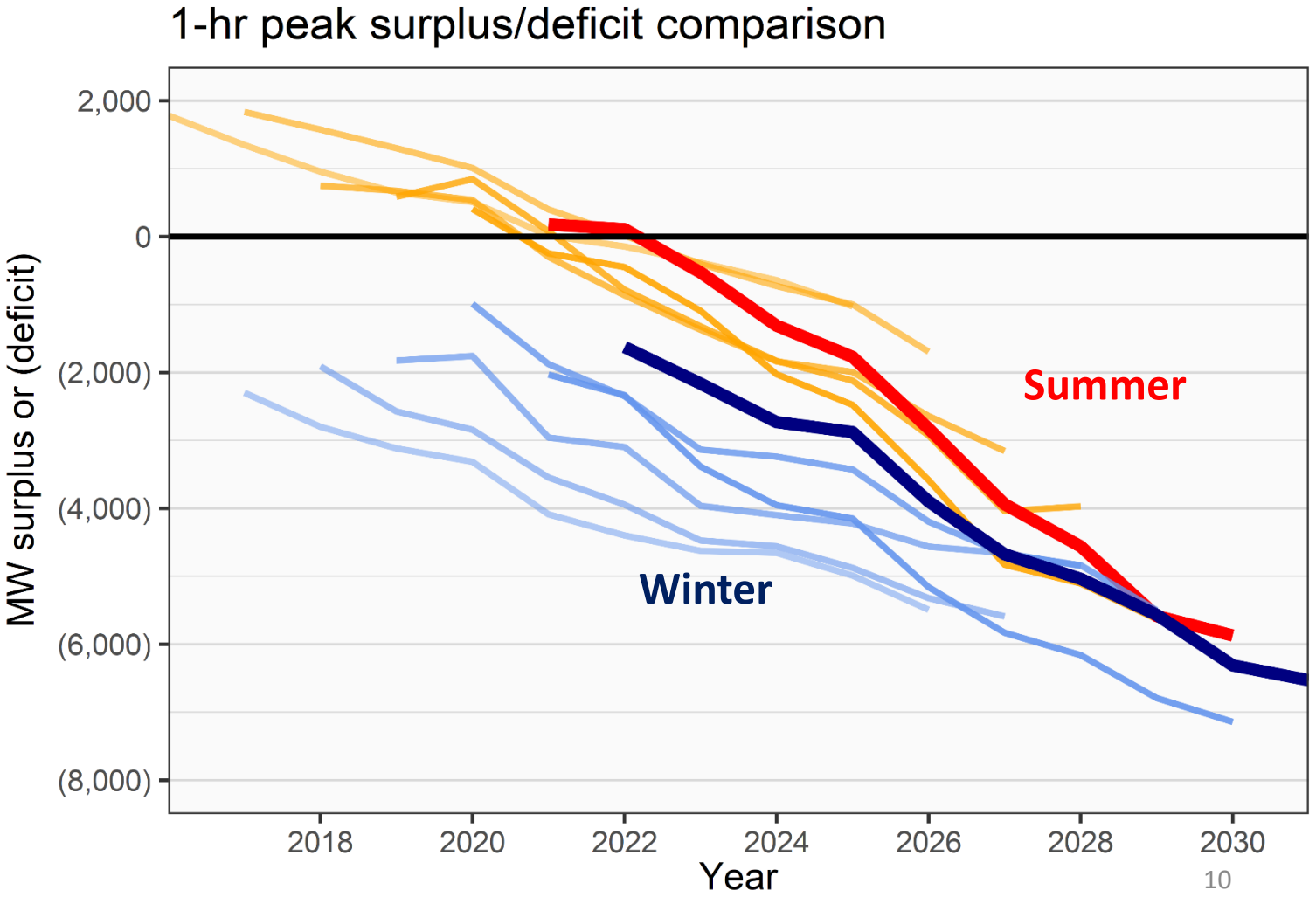
Gap is a barometer for need, not a precise resource adequacy metric

Summer and winter deficits starting to converge

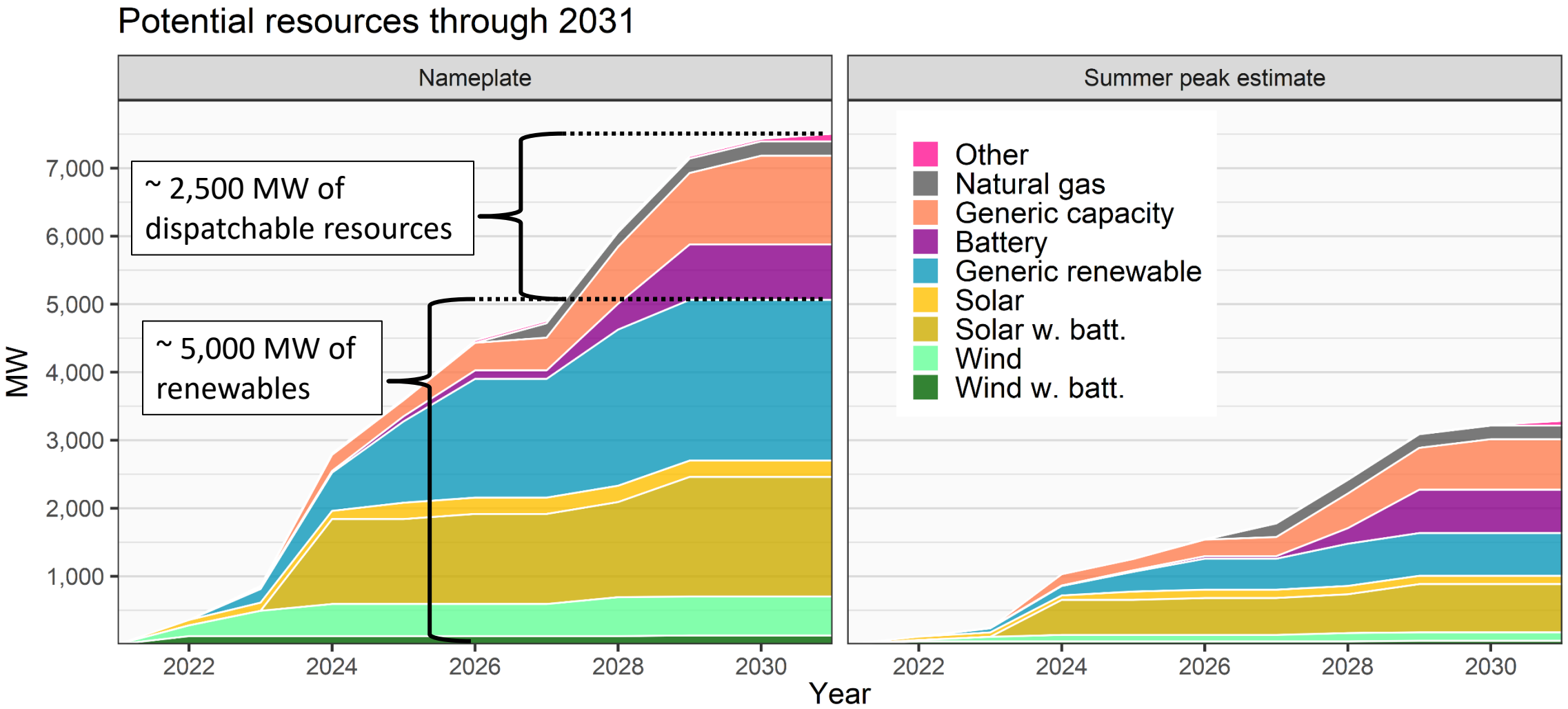
Summer vs. **winter**

Winter deficit is deeper, but summer could be the bigger challenge:

- The greater West is summer peaking
- CAISO had outages in summer 2020
- Summer loads are growing faster than winter
- 2021/2022 futures prices are higher in summer than winter
- Summer hydro generation expected to decrease with climate change



Future supply side utility resources mostly renewable



Winter peak estimate similar to summer in total; peak capabilities estimated by staff/utilities; not included in report load/resource balance

Key takeaways

- Peak loads are projected to grow more rapidly in summer than winter
- Energy efficiency remains a priority for utilities
- Coal retirements and exits continue in the Northwest
- Lots of renewables coming to the Northwest
- The NRF load/resource deficit grows more quickly without potential resources
  - Potential resources need regulatory approval, citing, etc.