



Retail developments in Alberta

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Overview

- With enhanced electrification goals, the value of responsive retail demand is greater than ever
 - Demand response can offset the need to build distribution infrastructure to accommodate increasing load from electrification and changes to load shape
- Alberta's wholesale and retail electricity markets are both experiencing significant change
 - Important interface between these markets
- Considerable scope for innovation moving forward in retail

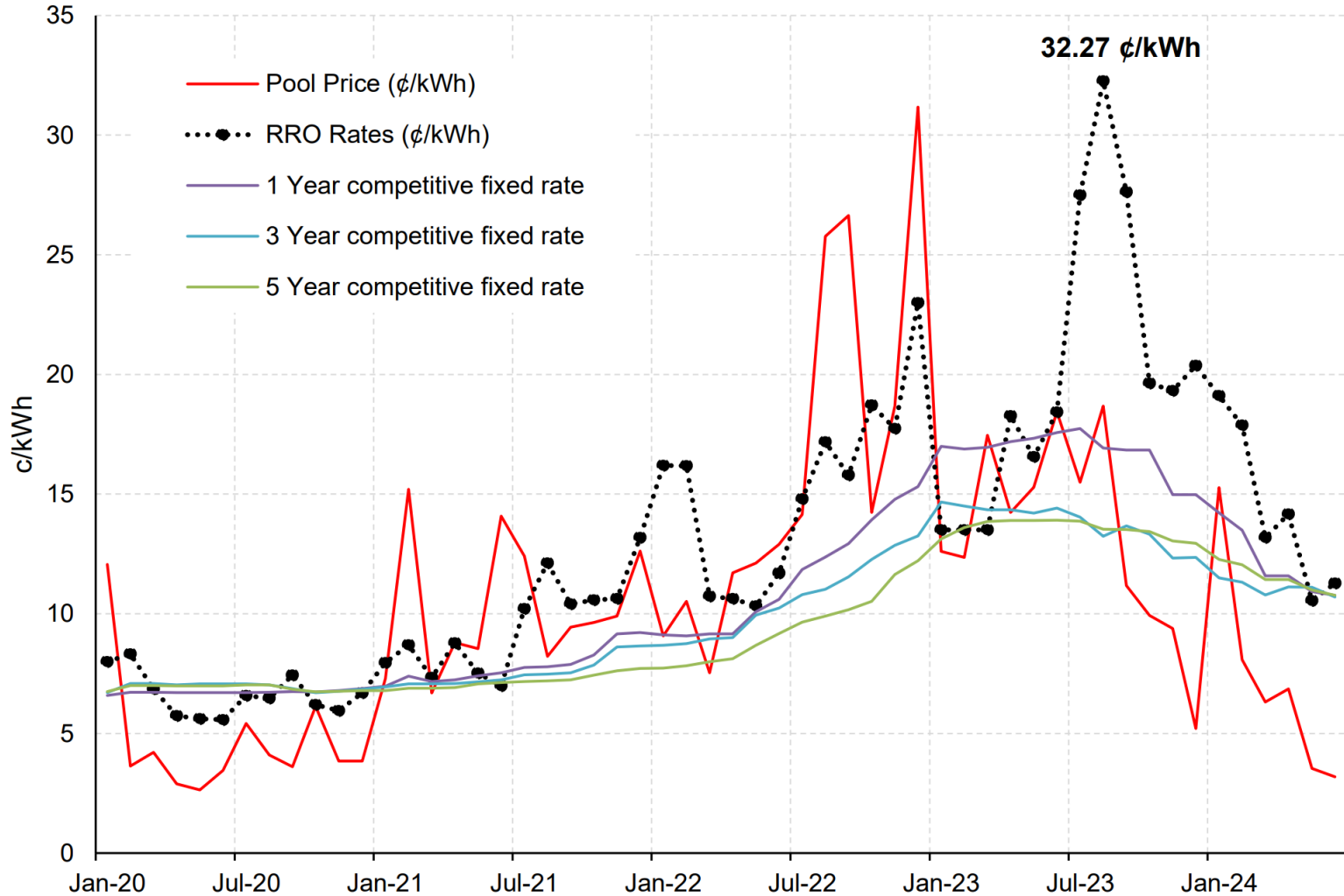
Alberta's electricity framework

- Generation costs are not regulated
 - Hourly wholesale market
 - Energy-only market
 - Investment decisions made by for-profit entities
- A long-standing financial forward market exists
 - Products available with various term lengths and shapes

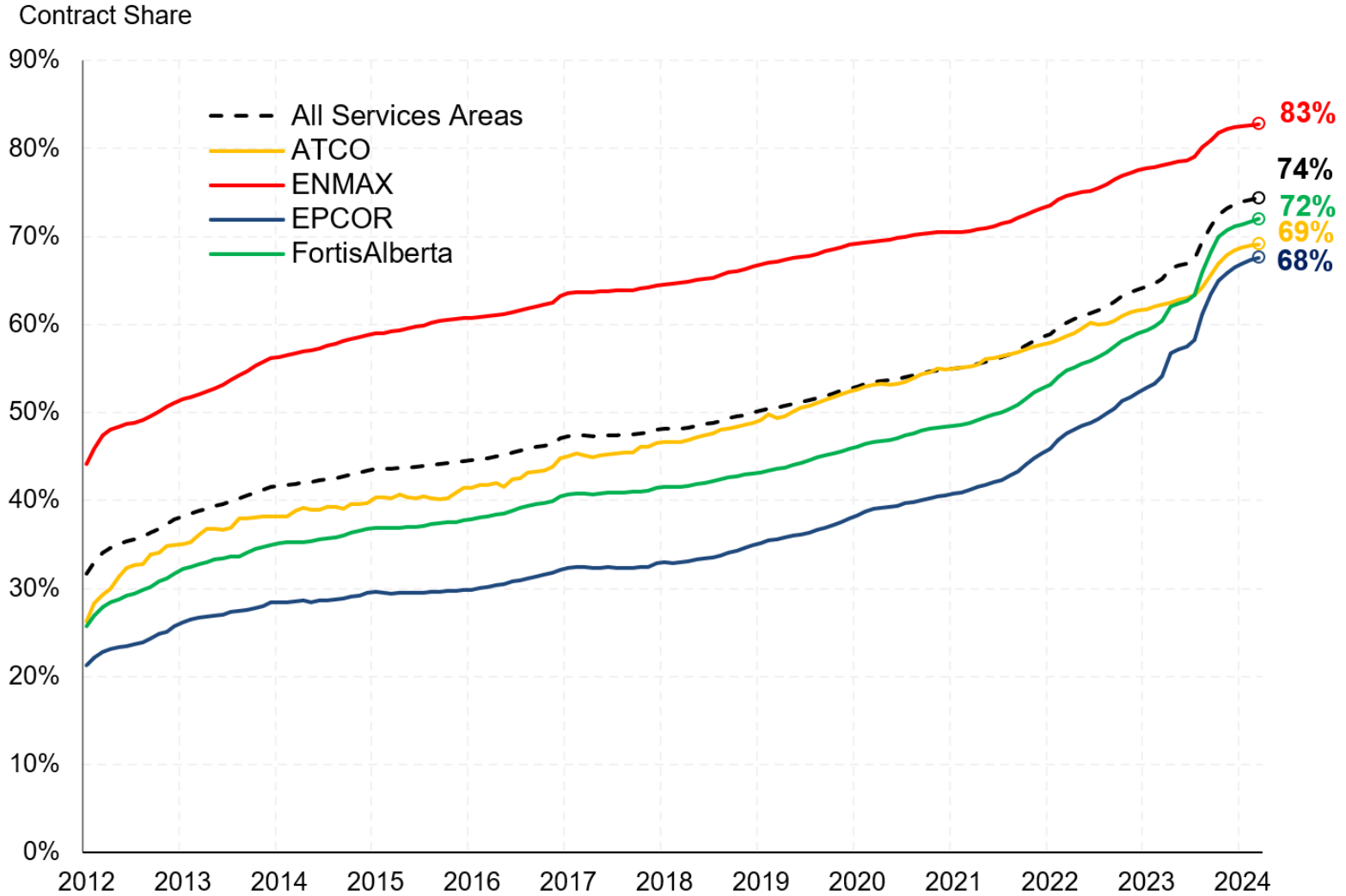
Alberta retail background

- Residential retail customers may choose a competitive retailer or remain on the Regulated Rate Option (RRO).
 - The RRO is procured incrementally starting 120 days in advance of the delivery month
- Typical competitive rates include floating or fixed (one, three, and five-year contract terms are common)
- Settled based on monthly consumption, with an average load shape
 - Retailers do not have access to site-specific hourly consumption data
 - Classic time of use rates are not feasible to implement

Retail rates in recent years

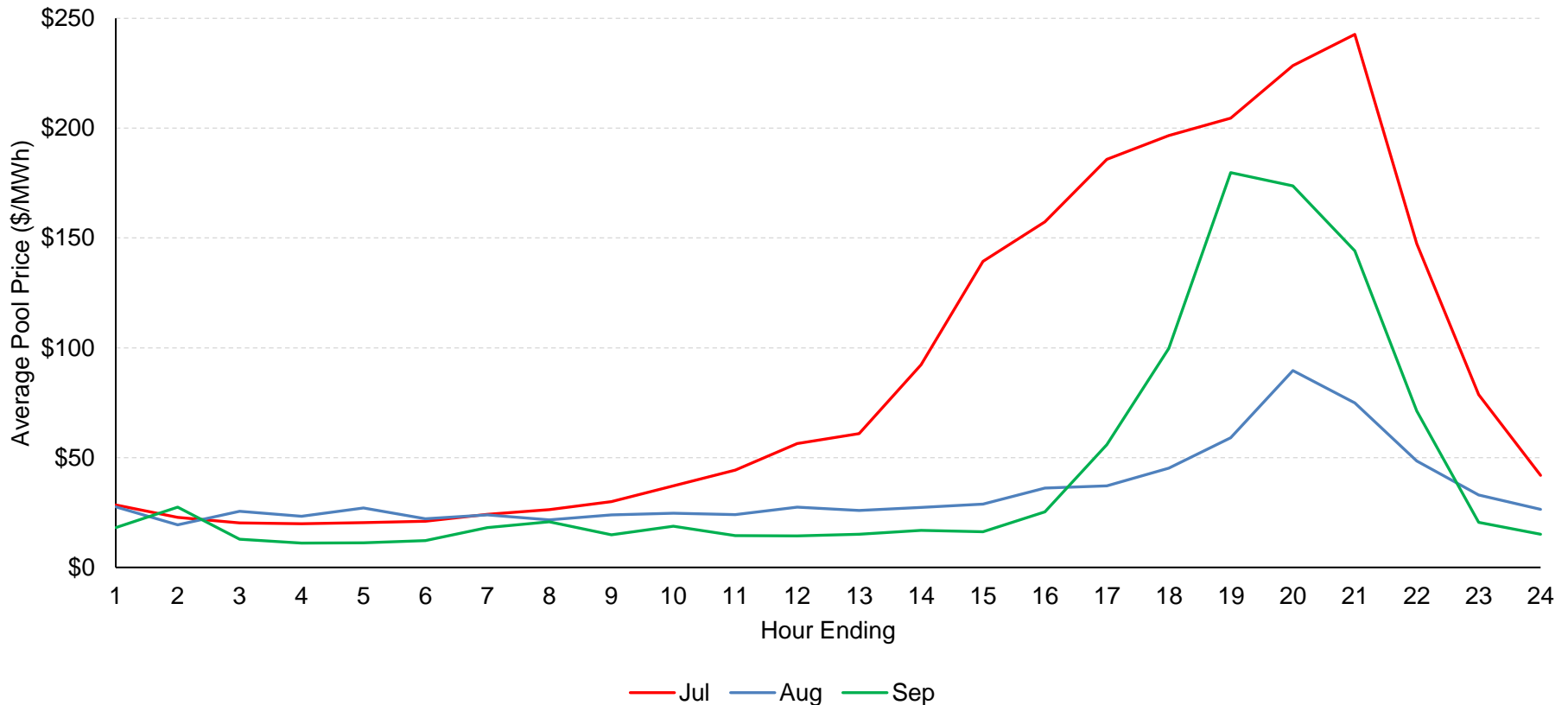


Retail competitive contract shares

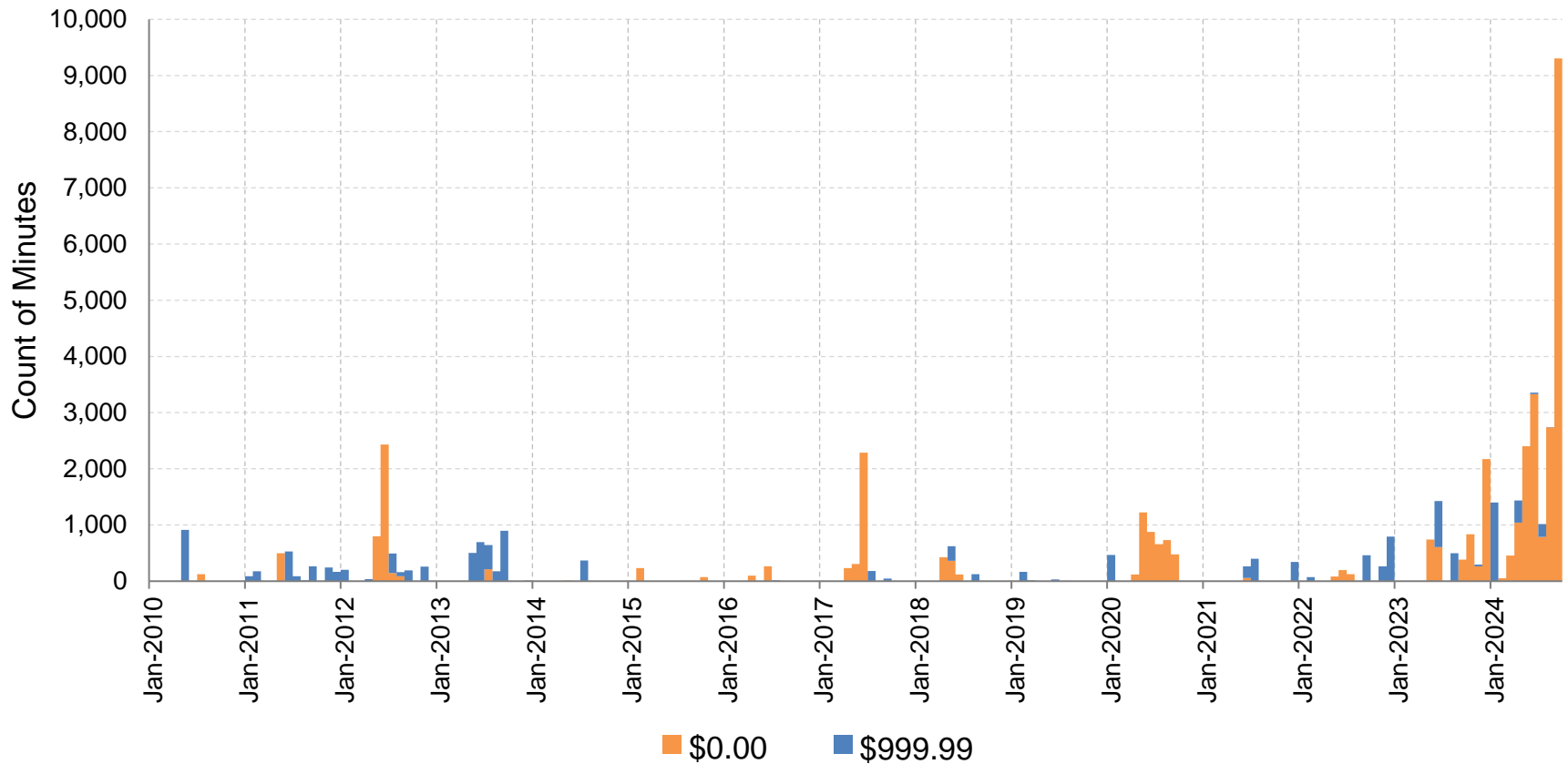


Wholesale price patterns

- Alberta wholesale prices do not have a typical diurnal pattern
- Challenges in implementing typical time of use rates

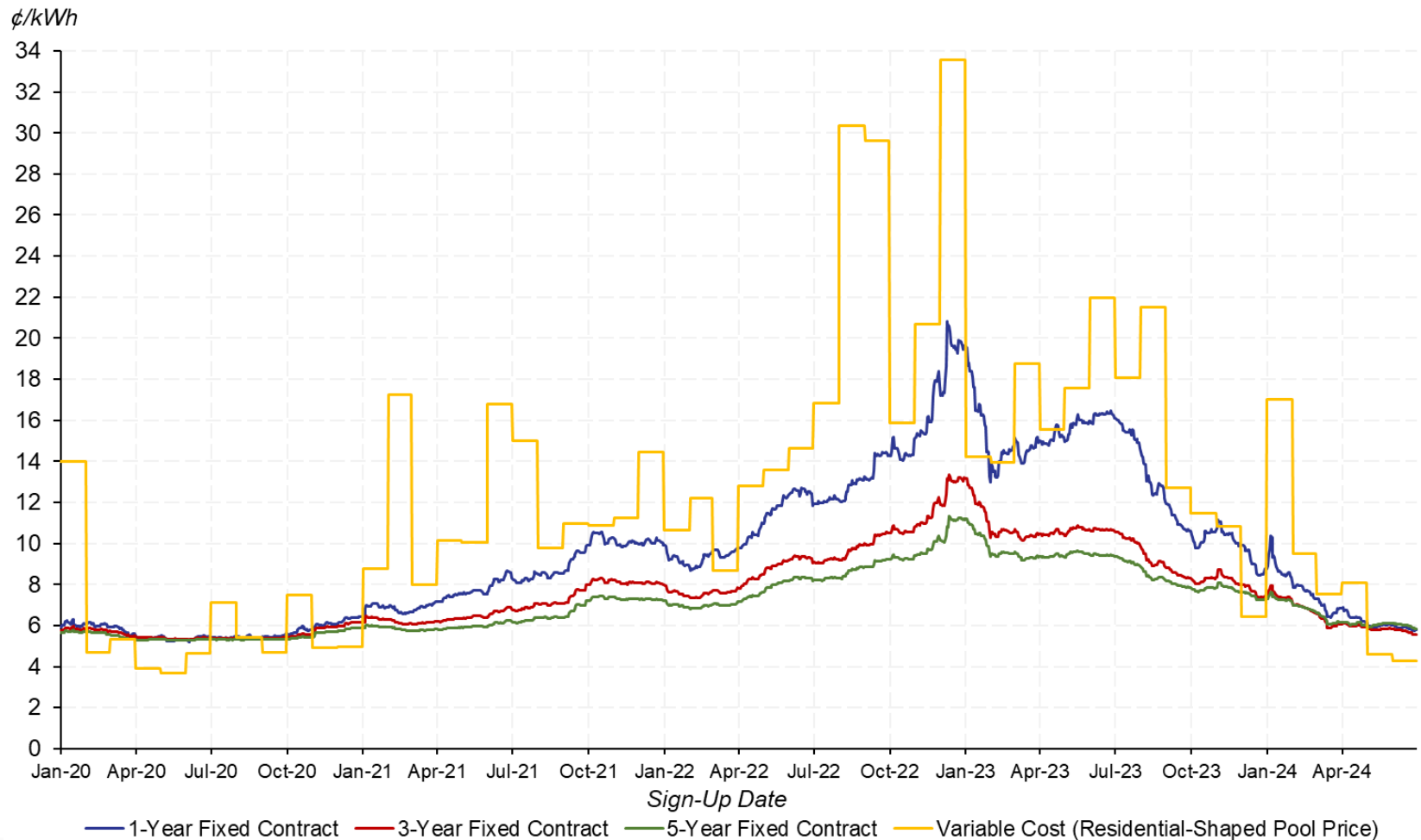


Wholesale price volatility



Expected cost of service

- Risk-free expected cost based on shaped forward market products



Rate of Last Resort (RoLR)

- Announced in April 2024, will take effect January 1, 2025
 - Policy objectives: rate stability and recasting the default option
- A two-year fixed RoLR rate will replace the monthly RRO rate
 - No capability for RoLR providers to adjust RoLR rate offering for different vintages of customers
 - RoLR rates subject to a 10% collar between 2-year terms
- RoLR providers are not required to procure forward hedges to construct RoLR rate
- Rate-reopener provision allows RoLR rates to be reset if a RoLR provider is experiencing adverse financial performance (parameters subject to stakeholder consultation)
- Retail customers on the RoLR will be contacted by the Utilities Consumer Advocate to confirm RoLR status and outline alternatives

Residential switching behaviour

- MSA work in progress estimating consumer switching behaviour
 - Based on Hortaçsu, Madanizadeh, and Puller (2017)
 - Two-stage approach: modelling a decision to search, then a choice of retailer (either staying with the current retailer or switching to an alternative)
- Estimated monthly search rate for consumers on competitive rates of approximately 1.5% from 2018-2023
 - Absent a bill shock, implies searching every 5.5 years
 - Somewhat higher search rate for consumers on the RRO, possibly due to recent rate variability and visibility
- Estimated competitive retail product premiums differentials of approximately -2 to -4 cents/kWh to the Regulated Rate Option
- Results suggest significant consumer inertia, but innovative retailers can still induce retail customers to switch

Looking ahead

- Scope for retailers to capture significant value from volatile wholesale pricing
 - Ability for control of larger household loads may provide significant value
- A move to hourly settlement for retail customers would provide scope for considerable retail innovation