Hi Andrew,

I hope you've enjoyed a nice break over the summer.

I appreciate all the work that must've gone into preparing these documents for consultations. There's a lot of great content here and I've only got a few considerations for you from the Electricity Demand Forecast Methodology. In response to:

SME Consumption

> **Matters for Consultation:**
>
> - AEMO typically uses GSP as the economic driver, but has tested models of SFD and HDI. Should AEMO test against any other economic drivers? What other drivers should be considered?

I'd suggest using a variable that aggregates industry output as measured by GVA from all non LIL industries, weighted by the electricity intensity of each industry. This would ensure that your economic driver measures business activity, avoids double counting with the LIL forecast and respects the fact that different SME activity will have a substantially different impact on energy demand.

The limitations of your current drivers are:

- GSP will also capture output from large export producing businesses which would typically be caught in the LIL forecast.
- State Final Demand is not a bad measure - but the variability of SFD is often driven by construction which tends not to be particularly electricity intensive.
- HDI is limited by the fact it measures income to labour rather than output of businesses. Noise in this series would include: income tax changes, labour market slack and the share of earnings provided to labour rather than other factors of production.

> **Matters for Consultation:**
>
> - Is the approach of forecasting SME consumption by blending a short term trend-based forecast with a longer term causal forecast appropriate? If not, please provide alternative approaches that you consider more reasonable.
> - What weightings should AEMO adopt for blending the forecasts appropriate?

I don't mind the clear and transparent weightings you've applied here however you could test historical 'performance' of the weightings by developing an econometric model with observed SME electricity outcomes as your Y variable and the respective forecasts (lagged) as the X variables. I wouldn't let this statistical result entirely drive your decision about the weighting – but it would be a useful proof-point. Also, I'd exclude 2020 from this analysis given the unforeseen events we've experienced.

Residential consumption

> **Matters for Consultation:**
>
> - Is the methodology for applying a short-term trend transitioning to a long-term projection appropriate for this forecast?

Using the NMI data (and a depreciation assumption) to estimate the historical dwelling stock sounds sensible but I'd suggest incorporating an economic forecast of connections rather than the trended NMI for the entire forecast. Dwelling completions vary significantly from year to year in accordance with the dwelling cycle which in turn is connected to key economic drivers such as interest rates, the unemployment rate and net migration. I suspect the NMI trend forecast fails to take this into account.

I'm happy to discuss any of these comments with you.

Kind regards,

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