Energy Efficiency Forecasts email correspondence

From: Philip Harrington

The key assumptions for NCC residential are:

- TAS stays at 6 star until FY2026, as announced, but others move to 7-star or equivalent (eg, BASIX), with effect from FY2024
- Under Progressive Change, all jurisdictions move to 7.5 star in FY2031, and 8 stars in FY2041
- Under other scenarios, all jurisdictions move to 8 stars in FY2031, and 9 stars in FY2041
- Autonomous or market-led efficiency improvement is derived or estimated actual values for the historical period. For the forecast period, we assume 0% for gas, due to limited technical potentials/incentive – and noting that this is efficiency improvement, not electrification – and for electricity, 0.2% per year for Progressive Change and Diverse Step Change, 0.75% per year for Orchestrated Step Change, and 0.5% per year for Green Energy Exports, broadly in line with the rates of electrification/scenario from the multi-sector modelling (CSIRO/ClimateWorks)
- On the whole of home components, we suspect the next move will be to a regulated energy budget of zero, as this should have happened in 2022. It was Option 1 in the technical work, and only over-ridden politically. The main impact of that would be to increase PV uptake, which we are not modelling here. There could be an additional incentive for EE improvement for those new dwellings that have poor solar access, for one reason or another. However, we are already modelling a significant impact associated with that from NCC2022, and it's not clear that there would be additional savings to model. Possibly higher COP space conditioning equipment would be needed, for e.g. There's no guidance available from jurisdictions about this – it's too early for that.

Re the minimum energy performance standards for rentals, we're not modelling that in terms of star ratings, as it's not clear that's how it will be done. While that's possible, using RES for example, we think it more likely that there will be a bunch of prescriptive requirements around insulation, heat pump heating (and hopefully that or solar hot water), gap sealing/weatherisation and hopefully PV as well. So we model the impact based on my estimates of how many of the rental properties are likely to require upgrading to meet the standard each year, and then the per-dwelling savings that result. We are being deliberately fairly conservative about this – even though states have been talking about it for many years, there's not much to show for all that. First, we assume no impacts until FY2025, allowing time for decision-making and implementation. The second general approach is that we assume standards are set once every 10 years only, with owners given 5 years to fully comply, then no change for the next 5 years, then a lift in requirements for the next 10 years, and the pattern repeats. In terms of differentiation by scenario, in Progressive Change we assume that there is no agreement to roll this out nationally in the short term, so nothing happens until the second window in 2035, then weaker standards apply that require only 5% of the rental stock to be upgraded in each 10-year window. For the other scenarios we assume standards are set a little higher (but initially still pretty low), such that 10% of rentals are likely to fail, with these being upgraded progressively over the following 5 years, and saving 5% of their energy use. It could potentially be much higher than that, of course, but we need to see some evidence that jurisdictions are up for that. In the later periods, from 2035, and then from 2045, standards are progressively lifted, so that each upgrade realises 10% energy savings. If I were designing this measure, I'd go harder and faster, but we'll see.

Best regards,
Philip Harrington

Energy Efficiency Forecasts email correspondence

From: Caroline
To: Philip Harrington

Hi Philip!

"*I wonder if you could expand on the NCC assumptions being applied to each of the scenarios - e.g., how/when minimum requirements change? And how/when MEPS assumptions change the average star rating for the existing housing stock?*". If you could please send the residential policy assumptions, that would be fantastic.