Electricity Authority Advisory Group

Cost Reflective Pricing – EAAG Subgroup Meeting Notes

The subgroup was made up of the following EAAG members:

- Jamie Silk
- James Tipping
- Deborah Hart
- Jason Larkin
- Fiona Wiseman
- Ryno Verster
- Liz Kilduff
- Huia Burt

Note: Deborah Hart was also originally a member of this subgroup but withdrew following her appointment as Board Chair for UDL, creating a potential conflict of interest between roles.

The group met twice: 17 September and 23 October 2024.

Context for the EAAG Subgroup

The Authority provided a summary of the context from the Energy Competition Taskforce work that led to these initiatives. This EAAG subgroup was formed to consider the following three initiatives within package two of the Taskforce programme:

- 2A Requiring distributors to pay a rebate when consumers export electricity at peak times
- 2B Require all retailers to offer time-of-use pricing
- 2C Require retailers to better reward consumers for supplying power

2A aims to introduce a cost reflective tariff for EDBs. The desired outcome is that injection prices have the same cost-reflective characteristics as consumption prices.

2B and 2C seek to address the concern that there are not enough offerings in the retail market, especially with larger retailers. The assumption is that changing this will help address the energy shortage and difference between the level of peak signals/ value for injection compared to consumption.

The EAAG was established to provide independent advice on the Authority's work programme. Its members are selected in an independent capacity based on their expertise and experience. The discussion record below reflects this, incorporating a diversity of perspectives rather than a single consensus view on some topics.

Additionally, the subgroup provided advice and input in response to specific questions and discussion papers provided by the Authority. Consequently, these notes reflect EAAG responses to targeted issues and topics rather than a comprehensive review of all relevant considerations regarding the proposed initiatives.

The intent was to provide some initial input and advice to the Authority through a series of light-medium engagements, drawing from a range of perspectives across the EAAG membership, as the Authority was preparing for the initial consultation process that has now opened.

Summary minutes from 17 September Discussion

- Members recommended in exploring the problem and options that the Authority:
    - review the Australian export tariff guidelines as a comparative approach and to ascertain any lessons learned including for different consumer segment impacts;
    - consider system cost (congestion) and benefit drivers (e.g. time, location);
    - lead with a consumer-centric analytical approach including what are their pain points and their needs for affordability, resilience and equity across consumer segments (including large generators and how we extend the access to benefits to other consumers). Multiple sources of insight in current NZ work were noted;

- Subgroup members posed a number of alternate considerations (noting there are various challenges and opportunities to consider in each case):
    - Facilitate a market for EDB rebates
    - Retail injection tariffs
    - Split views between an existing linear value chain (payments via retailer) focus and alternative value network opportunities (e.g. cashflows via intermediaries)
    - Ensuring we do not regulate in a way that crowds out innovation

- The rest of the discussion focused on various design considerations relevant to differing energy injection sources (solar vs wind vs hydro vs battery) and the pros and cons of different platform options for managing dynamic network needs, flexibility, free-rider risks and payments.

- Subgroup members also shared experience regarding the visibility of data that the networks need to operate and that the Authority might need to track (i.e. indicating constraints in the low-voltage network, or indications of herding behaviours) and the materiality of risks of limited data at current levels of DG penetration.

- There was further discussion regarding the concept of tariffs:
    - Where to set the threshold (i.e. imposing limits so total charges can't go below the fixed cost of maintaining the connection).
    - The most appropriate index point (i.e. futures prices vs spot prices)
    - Implications of various approaches and the likely cost flows to consumers.

- Subgroup members noted and supported the desire for symmetry between peak congestion prices and any rebate to consumers who export electricity. However, the group also noted various network and market factors that complicate this and need to be considered.
    - For instance, peak demand times do not necessarily equate to network congestion – congestion only arises when the consumption exceeds capacity (or the required

security standard). The most network efficient injection pricing scheme would need to be targeted at peak congestion times, noting they vary seasonally and regionally.

  - Additionally, as network capacity is increased, congestion disappears. This has implications for those who invested in infrastructure in order to benefit from export rates at congestion times – as congestion is more effectively managed, this will inevitably reduce the income stream they have previously benefitted from.

Summary minutes from 23 October Discussion

In the second subgroup meeting, the group canvassed each of the three potential initiatives in more detail.

2A Requiring distributors to pay a rebate when consumers export electricity at peak times

- Subgroup members observed a potential tension inherent in the definition as it appeared to contain two components that pull in opposite directions:
  a) A signal to reward consumers for investing at peak times
  b) A signal to reduce long-term network costs by deferring investment
- Subgroup members discussed the rationale for treating consumption differently than injection at peak periods (as we do today) vis a vis symmetry. A case was made for current load being distributed across the network and so it makes sense to have a network-wide signal to shape this load, whereas the low penetration of DG meant a generalised benefit is not yet expected. It was also noted while the benefits for off-setting are location specific, the load pricing model is not (acknowledging, location-specific pricing is extremely complex).
- Acknowledging the potential for increased complexity (e.g. location-based pricing), it was observed retailers were best placed to manage complexity and package offerings in ways that allow consumers to monetize.
- Subgroup members noted while this approach to distribution pricing may drive acceleration, it may have unintended consequences for distributors that needs to be managed.
- Network investment deferral requires firm injection resources that can be relied on. Views differed on how dispatchable this needs to be vis a vis firmness developing over time.
- Subgroup members also felt there was a risk of introducing a temporary measure to create movement in the market, that relied on significant, long-term investment from consumers who may then be disadvantaged as the market evolves. Consumers need appropriate financial information to support these decisions.

2B Require all retailers to offer time-of-use pricing plans

- Some group members felt the problem definition for 2B was less clear than 2A. It was also felt this option was aiming to address a competition issue that fits within Taskforce Package 1, not Package 2 (or that the issues being tackled in Package 1 need to be addressed before this intervention is appropriate).
- Subgroup members questioned the evidence base for this work and recommended further work to test whether mandating this was either something consumers actually desire or what are the other barriers to consumer take up, as there are offerings from most retailers already.

- It was also felt that a deeper review of existing customer research would be of benefit (i.e. insights from the EPR might give insight into differences between disengagement and lack of awareness).
- Subgroup members agreed the data supports the idea that time-of-use pricing definitely supports load shifting and suggested the Authority could get a better sense of the market by asking respondents to future RFIs to indicate the number of customers already on TOU plans.
- Preventing aggregation of half hour meter data was seen as a 'no-brainer'.
- Instead of mandating plans, subgroup members felt it better to seek to understand:
    - barriers to switching,
    - consumer challenges in understanding how to benefit from time-of-use
    - how consumer data access challenges limit innovation
    - practical implementation barriers to load shifting propositions
- The group also recommended considering load control plans (noting this has been held back by metering tech but that is expected to shift)

2C Requiring retailers to better reward consumers for supplying power (feed-in tariffs)

- Subgroup members noted the significant perception barrier for consumers in the difference between import and export rate: it seems illogical to consumers that they pay 30c for consumption but only receive 10c back for injection (for example).
- Reframing the problem definition in terms of the consumer's ability to find the right tariff was suggested as well as the industry more clearly stating what makes up the underlying cost/ value drivers and benchmarking tariffs against this.
- It was noted that consumer education primarily focuses on energy efficiency. To help consumers understand the market they are being encouraged to enter, there's a need to educate people about the value of energy use at different times (i.e. within the solar window).
- Tariffs are a bundle of so many other costs, as are retail prices. Subgroup members cautioned fixing one point in the bundle without expecting another point to blow out.
- Subgroup members felt mandating 2C (in the form discussed) was a disproportionate response to the problem and likely to have unintended consequences. The group encouraged the Authority to consider other jurisdictions that have taken similar action and examine whether any unintended consequences arose.

In summary, the EAAG subgroup's advice to the Authority included the following key points:

- Concern that the currently limited presence of injecting resources leads to pricing inefficiency and negative equity impacts if injection rebates were implemented – sources of injection are not widespread, some are less available when they are most needed, and the value paid to consumers when spread across every day of the year dilutes value for usage (compared to more targeted payments). These factors may create disincentives to the desired investment with some consumer segments, if it discourages other more targeted pricing, rebates or services from developing (e.g. VPP). Subgroup members again noted the value of starting the analysis with the consumer (segments) needs and journey.
- Concern that mandating time varying retail plans for consumption (2b) and for injection (2c) may lead to unintended consequences (either perverse incentives or inadvertently constraining innovation).
- The sequencing between Package 1 and Package 2 interventions needs careful consideration – it may be that a lack of competition in other parts of the value chain is

contributing to stifled retail competition (a Package 1 issue), resulting in a lack of retail market activity (a Package 2 issue). Mandating interventions under Package 2 may have unintended effects where actual problem is symptomatic of an issue that needs to be addressed under Package 1.

- The problem definition needs greater clarity and the cost benefit case for network injection rebates (2A) needs more robust analysis.
- The 2A and 2C proposals will tend to spread the value shared with consumers over many kWh, every day of the year rather than encourage targeted investment/ use. This can work well with consumer segments that favour habitual use (set and forget) but may reduce the incentive available to grow other solutions and attract consumers to higher value, location-specific or time-specific use.
- Subgroup members also noted the need to ensure a level playing fields between large and small distributed generation.
- There are valuable lessons in past NZ experience (EPR) and from other jurisdictions regarding how to accelerate principles-based regulation and the time it has taken to implement distribution pricing principles. Subgroup members felt these lessons provide a basis for much faster implementation of future changes in a way that matches consumer needs and network value.