Embedded networks stakeholder workshop: summary of proceedings

29 September 2023

1 Overview

IPART held a stakeholder workshop on 21 September 2023 to discuss what we have heard from stakeholders through submissions to our consultation papers. The workshop was attended by 57 stakeholders, 2 Tribunal members and IPART Secretariat staff.

The workshop covered 4 topics:

1. Our criteria or considerations for assessing different price setting methodologies
2. Options for an electricity pricing methodology
3. Options for hot water and gas pricing methodologies
4. Options for a chilled water pricing methodology.

IPART made short presentations on each topic, followed by stakeholder discussion.

This paper provides a summary of the issues discussed at the workshop, including:

- the experience of consumers living in embedded networks, including the inability for residents to change providers in practice
- Arguments for and against using the DMO in embedded networks
- The "Reckless method" used in land lease communities
- Embedded network operators' business models
- Whether maximum hot water prices should be set in units of water or energy used
- The lack of transparency over how hot water charges are calculated
- Issues with the application of a common/conversion factor
- Whether customers should be charged for unmetered gas.

2 Background on embedded networks

IPART presented some context for the embedded networks review, including a summary of our review process, and some of the overarching themes we have heard from stakeholders in response to our consultation paper. We received 32 submissions from advocacy groups, embedded network operators, and specialists and 85 consumer survey responses (many providing their energy and hot water bills).

IPART also provided an overview of the different types of embedded networks and the regulatory price protections that currently apply for different types of customers. Further, we outlined this review's place within the NSW Government's Embedded Network Action Plan and what we have been asked to do through our Terms of Reference.

The Tribunal noted that at least in theory, there could be some substantial benefits that can be experienced by embedded network customers. Our review will endeavour to set prices in a way that ensures customers in embedded networks can share in those benefits.

IPART asked consumers in attendance to share their overall experience with embedded networks. The key themes that consumers provided feedback on are presented in this section.

2.1 Issues being experienced by embedded network customers

Customers told us about the following issues:

- Persistently high bills, which were 25% higher than for an on-market customer
- Gas supply charges being incurred even when gas is not used
- Not knowing they were entering an embedded network when they leased or bought their apartments
- Tenants in strata buildings cannot access the meters to check readings are correct
- That developers and body corporates lack the incentives to invest in improved energy productivity
- Poor billing practices
- Lack of energy related information for customers
- Opaque dispute resolution.

Challenges for body corporates were also discussed. One stakeholder noted the difficulties for body corporates in negotiating energy contracts as a result of the lack of transparency and the complexity of embedded network contracts and lack of trust in the providers. Customers told us for example, it is difficult for them to determine whether to include EV charges, batteries, and solar, which may come with a longer contract term. They considered that there needs to be standardised charging, and there needs to be fair and equitable commercial arrangements and transparency of those arrangements. They also noted that body corporates have received complaints from residents about high energy bills.

One provider noted that they bill their residents weekly, which can help them budget for and manage their bills. They considered that customers should have the option of being billed at least monthly.

2.1.1 Access to competition and other customer protections

There was a discussion about whether customers and buildings could switch providers. The following points were raised:

- Embedded network customers should have access to competition and have choice of providers like non-embedded network customers.

- Although under the power of choice regulations, the right for customers to choose providers applies, there are difficulties in practice, as:
  - It is cost prohibitive. It was noted in one apartment complex, individuals are able to buy out of the embedded network but it costs thousands of dollars.
  - Customers experience difficulties with obtaining energy only offers from energy providers.
- If a customer does switch, they will continue to receive two bills (an energy-only bill from provider of choice and the network fees bill from the embedded network operator).
- One stakeholder said that they are locked into a 20-year contract with the developer that allowed it to put solar panels on the roof of residents' building but residents do not share in the benefits. Residents are not able to install their own solar panels. They said that for their building, the entire owners corporation can collectively choose to buy out of the network, according to a buyout schedule, which is hundreds of thousands of dollars.
- The Owners corporation should have a choice to be able to change provider if their end users are not getting the right service at the right price and so 10 and 20-year agreements are unacceptable.

Throughout the session, the reduced level of customer protections was also discussed. Stakeholders said that:

- Customers in embedded networks have reduced customer protections, both in the rules and also the reality of what people are getting.
- Customer protections are important and need to be in place no matter the price charged/paid.
- Embedded networks should not be an avenue to be making profits by circumventing all the protections that are in the national framework.
- Contracts for embedded networks should not have unreasonable terms, and the specifics of the contracts should be looked at very carefully.
- That embedded networks isn't one industry. It is 5 different types of network users or networks:
  1) Caravan Parks & Residential Communities
  2) Retirement Villages
  3) Apartment Complexes
  4) Commercial Complexes
  5) Embedded Network Retailers.

  Each type of network should have their own sets of rules can operate in the best interests of each network and their residents.
- The regulatory framework for embedded network is an exemption framework that historically applied to caravan parks and shopping centres. New developments have been constructed under this exemption framework, instead of a licencing framework, which has led to loopholes in terms of customer protections.
- Embedded networks have been banned in Victoria, and there were previous plans for them to be banned in NSW.
  - However, it has also been acknowledged previously that in some circumstances - like caravan parks – embedded networks are the best and - in some cases – the only option available to ensure the supply of electricity.

3 Criteria for assessing different pricing methodologies

IPART outlined that the overall objective of our review is to protect embedded network customers from unreasonably high prices. It presented on the additional criteria for assessing different pricing methodologies and the feedback received from the consultation papers on this topic.

In this session of the workshop, stakeholders provided their feedback on what are the most important considerations when weighing up different pricing options.

The following points were discussed:

- The Public Interest Advocacy Centre (PIAC) considered that embedded networks should pass on benefits to customers, including a lower price, otherwise there is no reason for them to exist.
- Some of the benefits of embedded networks were then discussed:
  - Austin Tourist Park noted that for its residents, if they weren't part of the embedded network, the residents would incur very high capital costs to connect to the grid. They agreed that embedded networks should pass on benefits to customers, but in terms of pricing, these benefits should be weighed up against the costs of providing the network.
  - Another provider noted that the embedded network provides the benefit of long-term operation and maintenance of the infrastructure.
  - Origin considered that sustainability initiatives (e.g. solar energy and EV charging) are other benefits of embedded networks.
  - A stakeholder noted that many retirement villages were operating for the benefit of their residents, including charging discounted electricity rates.
- The Tenants Union noted that some residents and particularly tenants are very limited in their ability to improve the energy efficiency of their homes. It costs some tenants a lot more to cool and heat their homes due to poor insulation. Low incomes can also mean limitations in upgrading to more energy efficient appliances.
- Origin stated that the pricing methodology will need to facilitate competition at the building/owner's corporation level and allow them the ability to change providers if customers are not getting the level of service expected.
- Other stakeholders considered that there are limited incentives for building owners to seek out the best prices for their embedded network. They said that:
  - Tenants do not have a lot of alternative options if they don't like their current building's choice. Relying on building owners in this area is not going to lead to significant improvements in outcomes.
  - This is also an issue in commercial/business embedded networks, where landlords/decision makers are frequently overseas and largely passive, not always looking to improve the conditions for their tenants.
- A stakeholder stated that the pricing methodology should not disadvantage caravan parks and shopping centre tenants given that it was for these types of embedded networks that the original exempt selling framework was designed for.

4 Options for electricity pricing methodology

IPART presented on the different options we have heard from stakeholders through the consultation process on setting maximum prices for electricity. The 3 main options were the DMO, a discounted DMO, and a retail market price-based benchmark.

This section outlines the main points from the discussion that followed the presentation.

4.1 Mixed support for the use of the DMO as the maximum price

Retailers and embedded network operators in attendance reiterated their positions in support of using the DMO as a maximum price:

- Origin said the DMO will encourage competition among retailers and encourage owners to get the best price for customers in embedded networks.
- Energy Australia stated it considers the DMO is appropriate for most embedded networks, except for land lease communities. This is because customers in land lease communities typically do not have access to competition and therefore more targeted protection might be suitable for these embedded networks.
- Meriton Group also said it supports the DMO as the maximum price in embedded networks.

PIAC does not support using the DMO. It considered the DMO to be too high for embedded networks because of the inclusion of costs that are not relevant to embedded networks (e.g. customer acquisition and retention costs).

A customer noted that a DMO for her community would lead to very high profits for the operator, and they do not consider that savings would be passed onto customers.

4.2 Alternatives to the DMO

A few stakeholders suggested other options to setting maximum prices:

- PIAC stated its view that embedded networks should not be exploited for retailers and operators to make profits and therefore maximum prices should be benchmarked to the lowest market offers on the Energy Made Easy Website. Further, PIAC considered that solar, EV charging and other sustainability initiatives should result in lower bills for embedded network customers relative to on-market customers. They should not be coming with higher costs. They also noted that a lower price is one way of balancing the lack of protection and supports available.
- Origin noted when benchmarking to market prices, the prices available on the market don't represent what customers are actually paying. It noted that some of the lower prices in the market represent short term discounts.
- Energy Metrics Consulting said it considers a discounted DMO is the gold standard in setting a price cap for embedded networks. Under this option, while a 5% or 10% discount to the DMO would be the maximum price, it stated that it would expect embedded network operators and retailers to compete to provide even lower prices to customers.
- Ausgrid noted that it had made a combined submission together with the other distribution networks Endeavour and Essential, supporting a price cap based on a revised DMO, built up with relevant cost components.

  - It noted that it is proposing to introduce a new embedded network specific tariff. This is a network tariff, rather than an end-user price. Ausgrid considers that this will help reduce the unintended incentive for the embedded networks to be installed as an arbitrage opportunity arising from their network costs which are currently lower than for individual residents. A draft decision will be made shortly by the Australian Energy Regulator (AER) on whether its new embedded network tariff is accepted.
- Origin does not support a lower price than the DMO because sustainable infrastructure comes with a cost that is not factored into the price of electricity. A lower price would preclude these initiatives.
  - A stakeholder disagreed that the DMO precludes sustainability initiatives. Rather, the DMO allows developers to avoid capex and get the owner's corporations and hence residents to pay it off over 10 years.

4.2.1 Customers in land lease communities in support of the Reckless method

Throughout the workshop, there was also discussion of the Reckless method. It was used by caravan park operators, and customers consider that it worked well. The following observations were shared:

- From the perspective of a retirement village resident, the Reckless method has the advantage of simplicity. It is easy for residents to understand.
- The Reckless method is suitable for customers in land lease communities as they receive a different service compared to other customer types (i.e. some customers in land lease communities receive less than 60 amps of electricity). It was considered that it would be unfair for customers in land lease communities to be grouped with other customer types. They noted that the reason for the Reckless method is that operators were making huge profits before it came in. Prior to the Reckless method they faced very high rural supply charges, but only receive 50 amps of electricity.
- The Reckless method is appropriate for land lease communities where the landowner is the embedded network operator.
- A customer supported the Reckless method combined with a small extra charge for infrastructure. However they noted that rent should cover infrastructure and water for the community. Another methodology might result in promises of discounts by retailers and embedded network operators, but in practice they will not actually be passed on to customers.

4.3 Other pricing issues

- One stakeholder noted that there should be consideration for the shift to residential demand tariffs - any pricing cap will need to consider the Local Network Service Provider (LNSP) network tariffs (Shadow Price).

4.4 Business models of embedded network operators

IPART asked embedded network operators to explain how their business models benefit customers. Two stakeholders responded:

- Active Utilities said its business model is designed so that benefits go through to the building corporation and ultimately flow through to customers.
  - The maximum they can charge is the DMO but in practice, most customers bills are lower than the DMO.
- Origin Energy stated that its business model aims to provide lower costs to customers and always provides a discount to the DMO (currently 7% discount on the usage charge). However, the service charge is not discounted.

Additionally, Austin Tourist Park said that they have installed solar across their park for the benefit of all residents, but do not allow individual sites to install their own solar.

The Tribunal noted that there are 2 aspects to supplying electricity – the electricity itself, and then the costs of the network including maintenance or upgrades – and that there are different ways that embedded networks recover these costs. For example, for apartments blocks there may be capital costs that are incurred upfront which become part of the overall costs of the apartment. However, there are costs of maintaining these networks over time, and there needs to be a way of paying for these costs.

It asked whether prices recover capital and/or operating and maintenance costs of the embedded network.

- Origin stated that owners cooperations typically want to recover capital costs through the energy prices charged to embedded network customers.
- Meriton said that it uses two models:
  - A service model, where an embedded network operator is responsible for any capital costs, which are recovered from customers on a smoothed basis.
  - "Bulk arrangements" where the owners corporation owns and is responsible for the embedded network infrastructure after it is installed.
- Energy Metrics said that it does not consider that the separate recovery of capital costs is a good idea. It considers that it is a way of circumventing a regulated price and it doesn't encourage the embedded network operators to operate the systems more efficiently.
- One stakeholder said that owners corporations tend to be locked into long term contracts to pay off these 'sustainability' elements by the developer - this is a critical piece of the puzzle that IPART should consider.
- One resident noted that through a service model, an embedded network reduces the responsibility that a strata has to take to maintain part of the asset, which is a positive. Another stakeholder noted that recovering the costs of the embedded networks through bills can reduce costs for strata corporations.
- It was noted that embedded network operators cannot recover their capital upgrades and maintenance costs under the Reckless method. Austin Tourist Park considered that the usage charge they charge to their residents (about $0.35/kWh on average) should be much closer to the usage charge paid outside embedded networks to allow them to recover costs.
- One stakeholder said that it would also encourage IPART to speak to the electricity distributors about how developers can avoid creating an embedded network. They said that they have seen examples where Distributed Network Service Providers (DNSPs) refuse to connect to individual customers within a development - just a single connection to the boundary, making an embedded network inevitable.

5 Options for hot water and gas methodologies

5.1 Setting prices in units of energy or water consumption

Stakeholders discussed whether to set hot water prices in litres of water used or based on the amount of fuel used to heat the water.

- PIAC noted that the AER does not currently take into account billing units in its decision not to apply the National Energy Consumer Framework to hot water. However, they strongly supported billing in energy units to move in the direction of energy protections that will apply in the future.
- A strata resident noted that her building uses gas for hot water, and they are billed in litres of hot water, and have unmetered gas supply for their cooktops. She said that it is difficult for residents to understand whether they are paying a high amount for hot water because there is no transparency over the how their water charges are calculated. This means they can't compare their prices to the price of gas. The lack of transparency creates negative perceptions among users. In addition, residents don't have access to their water meters, and so can't verify whether the billing is correct.
- Meriton noted the difficulties in converting electricity and gas input prices to water prices.
- Energy Metrics considered that prices should be set in water units so that the embedded network operator bears the risk of system inefficiencies and low occupancy. The alternative of using a 'common' factor means that inefficiency and low occupancy are borne by the residents, which can have a big impact on bills.
  - Under this system, the common factor will increase when an individual meter stops working, which would increase the bills of all other residents.
  - It cited an example of a low occupancy unit block, where residents would be allocated a high portion of the building's water heating costs when they used a small amount of hot water, leading to bills in the thousands of dollars.
- Energy Metrics said that it calculates prices for hot water taking into account the median price of gas in the area, the efficiency and actual performance of a building, and what is a reasonable fixed supply charge.

5.2 Unmetered services

- Austin Caravan Park said that they are not able to charge for energy and water where the service is unmetered, and that they consider this should be a regulatory requirement for all providers. The Tribunal noted that there is a lack of transparency and uncertainty surrounding unmetered services.
- On the other hand, Energy Metrics noted that in many embedded networks, the gas for appliances other than hot water is only a small proportion of the gas used. This means that it would be more costly to install and read a meter than the flat fee currently being charged. It also noted the rise of 'energy as a service' which is often provided as a fixed priced service, similar to other services, like phone plans. These can be simple to understand. It considered that requiring all services to be charged based on consumption would exclude a wide range of modern distributed energy resource products from the market.
- It was also considered that residents should be able to disconnect from their gas service if they do not use it to avoid these charges.

- A strata resident stated that because they don't have metered gas, the residents are not able to access gas rebates that they would otherwise be eligible for – noting that the building is in an economically distressed area.

5.3 Other issues

- One resident noted that they have been trying to negotiate with the current hot water provider for her building for the last year. The provider was prepared to negotiate on the price of electricity, but not on the price of hot water. They also noted that most owners are not engaged in their body corporates, and so it is difficult for building residents to collectively take action.
- Energy Metrics noted where customers are billed in water units, currently very large hot water users can be worse off compared to if they had been billed for the gas used. This is due to the declining block tariffs in gas that are currently not applied to hot water charges (which are set for a median consumer or those using small amounts of gas).
- In response to IPART's question about whether natural gas was being supplied at caravan parks:
  - The Caravan & Camping Industry Association said that their survey of its members identified that there are 4 embedded networks on-selling natural gas to 491 residents in land lease communities in NSW.
  - Another stakeholder said it had come across land-lease communities with LPG networks. Austin Caravan Park said that it only supplies bottled gas.[a]

6 Chilled water

Chilled water is used as a medium to transport energy for the purposes of providing air-conditioning services. IPART noted that there have not been many complaints to the Energy and Water Ombudsman of NSW (EWON) regarding chilled water. Of those complaints received, most of the issues related to billing and metering.

IPART provided an overview of the key themes from stakeholder submissions in relation to setting prices for chilled water. These included:

- There is significant variability in the efficiency of different chilled water systems. Some stakeholders suggested that a methodology should include a prescribed efficient conversion factor to convert the chilled water measurement to energy units.
- Some stakeholders considered metering is difficult and subject to a lot of variability and measurement issues, while others considered that metering can be efficient and reliable.
- Some operators reported that they provide air-conditioning services as a flat daily fee, but we have also seen it being priced in energy units (kWhs), based on consumption.
- It was also noted that there are technologies other than chilled water used in centralised air conditioning systems.

[a] A previous version of this fact sheet incorrectly reported that Austin caravan parks supplies natural gas to its residents, with individual meters for each resident. This was corrected on 7 November 2023 to clarify that it only supplies bottled gas.

No additional feedback was provided by the attendees in the session.

7 Prohibiting new hot and chilled water embedded networks

IPART noted that our terms of reference require us to make recommendations about whether new hot and chilled water embedded networks should be prohibited. We have not been asked to comment on existing hot and chilled water embedded networks or make recommendations about whether new electricity and gas embedded network should be banned.

IPART noted that the feedback in the submissions suggests there is a lot of support for improving the regulatory framework, but not a lot of support for banning them.

IPART noted that it will be publishing a draft report, and people will have an opportunity to provide further feedback prior to it being finalised.