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The future of embedded networks in NSW
Review of embedded network prices
IPART

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Submission RE: Embedded Network Action Plan – Energy prices in embedded networks

Introduction

We write in reference to the New South Wales (NSW) Government's Embedded Network Action Plan, published on 2 March 2023, and the Independent Pricing and Regulatory Tribunal's (IPART) Embedded Networks – Draft Report, dated December 2023. This letter aims to provide Altogether Group's perspective and recommendations regarding the proposed changes.

Who We Are

Altogether, we deliver reliable, localised essential services for the prosperity of people, the community, and the planet by forging our own path and keeping resources and jobs local. Over 400 communities already benefit from the Altogether experience across NSW and QLD. Our services range from being a water authority with leading global recycled water systems, such as at Central Park in Sydney, to efficient embedded energy networks in QLD and NSW as an authorised retailer under the National Energy Customer Framework (NECF). We provide our EN customers with the full range of retail protections in accordance with the NECF.

We consider ourselves a model embedded network retailer and voluntarily provide the same level of consumer protections as is afforded to customers of authorised electricity retailers for customers receiving hot and cold-water services already. We have experience assisting both greenfield and brownfield embedded networks meeting their energy retail challenges, as well as facilitating end-to-end installation, maintenance, and provision of hot water services to meet each embedded network's unique needs.

Policy objectives

Altogether refers to the National Electricity Objective (NEO) (https://www.aemc.gov.au/regulation/neo) in its response to recommendations within the Draft Report, which are, to paraphrase the NEO, to promote efficient investment in, and efficient operation of electricity services for the long-term interests of consumers with respect to price, quality, safety, reliability, and security of supply. Further, as of September 2023, it is also an objective to reduce Australia's greenhouse gas emissions.

When the Australian Energy Regulator (AER) assesses applications for individual exemptions from the requirement to operate as an authorised network distributor, an applicant must demonstrate that the proposed operation and embedded network is consistent with the NEO. Altogether also refers to the NSW Government's Net Zero Plan (https://www.energy.nsw.gov.au/sites/default/files/2022-08/net-zero-plan-2020-2030-200057.pdf). Altogether submits that it would be preferable for IPART to formulate final recommendations that are consistent with both the NEO and the Net Zero Plan. Detail on what that would encompass is provided below.

In considering its final position, IPART should consider the implications of changes to the regulatory framework that governs embedded networks in NSW as administered by the AER.1 The AER is currently reviewing that framework and there is the risk that the AER and IPART final recommendations will counteract one another or lead to inconsistent outcomes. A holistic assessment of the pricing caps together with the regulatory framework is needed for there to be positive consumer outcomes.

Altogether Group strongly supports the objective of the Action Plan, that is to bring embedded network customer outcomes in line with those in traditional energy supply arrangements. We support the key price setting objective of ensuring that embedded network customers do not pay more than non-embedded network customers as well as ensuring that prices are simple, transparent, and easy to understand. Altogether's responses to the recommendations within the Draft Report comprise three simple and overarching recommendations to ensure embedded network customer outcomes are in line with and are comparable to those in traditional energy supply arrangements:

1. The DMO (Default Market Offer) is an appropriate price cap.
2. The AER remains the responsible body for determining and enforcing compliance with the maximum prices for the sale of electricity, gas, and hot water to customers.
3. Retailers and exemption holders provide a Business Plan Information Document (BPID) to Energy Made Easy (www.energymadeeasy.gov.au) to improve disclosure and consumer awareness as well as to offer a comparison to the DMO.
    a. Altogether provided a recommendation during the AER consultation regarding Updating the Network and Retail Exemption Guidelines, on 2 July 2021 with respect to providing standardised information to customers. (https://www.aer.gov.au/authors/altogether-group)

Altogether supports IPART's recommendation to impose a maximum gas and electricity pricing mechanism and, as recommended in our submission to IPART on 11 September 2023, we consider the DMO to be an appropriate price-cap. We further recommend that the AER remains responsible for enforcing the price cap and that retailers and exemption holders be required to provide standardised information to customers for them to compare against retail offers being advertised on the Energy Made Easy website. The transparency available to customers, to compare like products and increasing their power to negotiate with their energy provider on price and service. Altogether supports intervention in the market to ensure fairness and the ability to address specific behaviours and restore trust in a system that can deliver low cost, environmentally progressive energy and hold an important role in affordable housing reforms.

[1] See https://www.aer.gov.au/industry/registers/resources/reviews/review-aer-exemptions-framework-embedded-networks

Altogether Group Submission responding to the Draft Report recommendations.

Please note our submission in response to recommendations noted in the Draft Report below.

1. **Maximum gas and electricity pricing methodology for embedded networks:**

    a. **Consumption charge set equal to the median consumption charge of each active retailers' lowest consumption charge (inclusive of discounts and GST) for their generally available offers.**
    b. **A fixed rate set equal to the median supply charge of each active retailers' lowest fixed charges (inclusive of discounts and GST) for their generally available offers.**
    c. **A separate price should be set for each distribution district, and for small business and residential customers separately.**
    d. **An active retailer is defined as any retailer with at least 1000 customers in NSW that has an active offer available at the time the benchmark is calculated.**

The Draft Report suggests that "to be effective" it would be appropriate to adjust the maximum price every six months or every quarter. This frequency of review, adherence, and enforcement gives rise to an unreasonable burden on resources when there is a regulatory system in place for traditional energy supply arrangements, that needs some gentle refinement to protect embedded network customers.

To operate effectively, to the benefit of consumers, an operator of an embedded network must usually enter long term gate meter supply contracts. Those longer-term contracts act as a hedge against frequent fluctuations in the wholesale market. The role of the operator in this instance is to manage long term energy procurement risk on behalf of consumers within embedded networks. A six monthly adjustment in the maximum price for embedded networks would result in fewer long term supply contracts, and consequently would reduce the capacity for operators to offer competitive pricing within embedded networks particularly when market events result in significant increases in the wholesale price of electricity as was seen in 2022.[2] Frequent changes in the maximum price would result in uncertainty and would reduce the savings experienced by those embedded network consumers who are already receiving below the proposed maximum.

Price ceilings are generally recognised as achieving short-term savings for consumers with more complex longer-term consequences. Price ceilings can protect consumers from excessively high prices, particularly in markets where demand is inelastic or where monopolies or oligopolies have significant pricing power.[3] However, over the longer term, price ceilings can disincentivize investment and innovation, particularly in industries where high costs are incurred in the development and delivery of products or services. This can lead to slower technological progress and reduced service quality over time.[4] Within embedded networks, consumers obtain access to technological solutions that may not otherwise be possible. The installation and operation of electric vehicle (EV) charging stations and energy storage are two obvious examples, the demand for which is expected to increase significantly. The market share of EVs in Australia is expected to exceed a third of all vehicles by 2033, resulting in a greater demand for charging infrastructure, particularly in high density residential areas.[5] Most EV charging is conducted

[2] ACCC, Inquiry into the National Electricity Market November 2022, (https://www.accc.gov.au/system/files/Inquiry%20into%20the%20National%20Electricity%20Market%20-%20November%202022%20report.pdf)
[3] Matsushima, N. (2008). Price regulation, product location, and welfare. Journal of Economics, 95, 233-253. https://doi.org/10.1007/S00712-008-0032-0.
[4] Roques, F., & Savva, N. (2009). Investment under uncertainty with price ceilings in oligopolies. *Journal of Economic Dynamics and Control*, 33, 507-524. https://doi.org/10.1016/J.JEDC.2008.07.002.
[5] Khoo, Y., Wang, C., Paevere, P., & Higgins, A. (2014). Statistical modeling of Electric Vehicle electricity consumption in the Victorian EV Trial, Australia. Transportation Research Part D-transport and Environment, 32, 263-277. https://doi.org/10.1016/J.TRD.2014.08.017.

at home or business locations,[6] embedded networks within residential apartment blocks will play a critical role. A separate maximum price to that set by the AER risks placing NSW behind other states when it comes to the renewable energy and clean transport transition.

In setting a maximum price, regard must be given to the input costs and the risks of setting a price that is too low. In NSW both Ausgrid and Endeavour Energy have proposed the introduction of embedded network tariffs. These tariffs would dramatically increase the network fees paid at the gate meter by embedded network operators. Ausgrid has rejected a call for consideration of grandfathering and both distribution businesses have submitted revised proposals to the AER following the AER's feedback.[7]

Retaining the existing cap on the prices that can be charged within embedded networks as administered by the AER will ensure consistency with other jurisdictions and will not place NSW at risk of falling behind at a critical juncture as we transition to renewable energy and clean transportation. The DMO is already set for each distribution district, including for small and residential customer separately. For these and other reasons, such as access to other regulated customer protections and like for like service offerings per building, Altogether considers the DMO an appropriate price cap for electricity customers.

2. **For electricity embedded networks, an embedded network seller be permitted to apply different consumption tariffs for different time periods (i.e. time-of-use tariffs), as long as the average price does not exceed the determined consumption charge when it is weighted by the AER's Default Market Offer model annual usage profiles.**

Altogether agrees that embedded network sellers be permitted to apply different consumption tariffs for different time periods. TOU tariffs allow for flexibility of energy usage and continue to promote the adoption of smart technologies, such as smart metering and automation systems, that enable customers to monitor and control their energy usage more effectively. Altogether consider this recommendation to be at odds with the draft recommendation 1 and may have the unintended risk of embedded network sellers prematurely introducing time of use tariffs to give flexibility to the DMO instead of the alternative embedded network price cap.

Altogether offer single pricing tariffs to residential and small business customers and continue to promote the installation of smart metering technology in all the embedded networks we operate in preparation for different tariff models for customers in the future. Successful implementation of time of use tariffs are heavily determined by the sophistication of the embedded network seller and it is crucial for sellers to be able to communicate effectively with customers and provide education on how to maximise the benefit of ToU for them. Fair and professionally managed pricing structures, particularly in response to electric vehicle supply products, offer customers incentive to charge between 10 p.m. and 7 a.m. which in most cases will be entirely suitable for their needs and advantageous to managing the load of the building. Altogether acknowledge complexity and risk of small customers not being able to adjust their energy usage to off peak hour and continue to conduct research into a robust process of mitigating customers paying higher than necessary rates during peak periods.

[6] Speidel, S., & Bräunl, T. (2014). Driving and charging patterns of electric vehicles for energy usage. Renewable & Sustainable Energy Reviews, 40, 97-110. https://doi.org/10.1016/J.RSER.2014.07.177.

[7] See https://www.aer.gov.au/documents/ausgrid-revised-proposal-att-82-our-tss-explanatory-statement-2024-29-30-nov-2023 and https://www.aer.gov.au/industry/registers/determinations/endeavour-energy-determination-2024-29

3. **Where customers are billed in cents/Litre, the maximum price for hot water be determined by multiplying the maximum gas consumption charge (as applicable to the customer's distribution district and whether the customer is a small business or residential customer) by the maximum common factor of 0.4MJ/L.**

Altogether Group strongly opposes the application of a common factor to the maximum gas consumption charge and recommendation to the remove the supply charge for hot water services. We do however support that the common factor is used to derive a *reference price* for embedded network customers that considers Jemena metering and service charges in deriving a fair equivalent. Altogether agree that embedded network customers should not pay more than on-market customers with a centralised hot water system would pay and in many cases the methodology could represent that figure however, the recommended methodology does not differentiate for the customer, the value of energy attributed to their bill, or the inclusion of unmetered energy or the network component delivered by the embedded network seller. Altogether considers that the recommended methodology does not provide consumers with the information they require to understand whether they are paying a fair and equitable price for their service based on the fuel source, infrastructure investment and information available to them to monitor usage patterns.

Altogether commend the intention of IPART to increase consumer protections and improving pricing outcomes for embedded network hot water customers and acknowledge the variables with respect to system age, efficiency and design should not detrimentally affect customers. Altogether supported the package of law changes proposed by the AEMC in 2019 to essentially require all appropriately identified embedded network exempt sellers to require authorisation as a retailer.[8] This, coupled with the deeming of hot water services as a form of 'energy' service, would have the effect of increasing the regulatory and compliance requirements of retailers within embedded networks. To increase the scope of enforcement due to the readily available penalty provisions within the National Energy Retail Laws and alleviate the challenges faced by the AER to enforce the exemptions framework currently. While the significance of the changes that would be made as a result of the implementation of the AEMC's recommendations would be greater than caps on prices, the outcomes would be preferable as they would increase protections to consumers, introduce competition and not risk innovation and the pathway towards renewable energy and clean transport. A holistic approach is appropriate rather than piecemeal caps that would only apply within NSW and would have negative consequences in the medium to long term. The consequence of increasing the regulatory requirements to include hot water customers means that retail performance reporting data including complaints, energy debt, payment plans, hardship programs and disconnection and reconnections where possible, is available for analysis and evidence for future decision-making regarding price and better service.

4. **The pricing methodology for hot water permit embedded network sellers to charge for the consumption of hot water in either units of water (cents/Litre) or units of energy (cents/kWh or cents/MJ).**

Altogether strongly recommend a pricing methodology where customers can take a physical reading from the type of meter suitable for measuring the energy source and provide reading to the provider for verification, bill estimates and dispute resolution. That is, we recommend when the meter is measuring water, the customer is invoiced in c/Litre; when the meter is measuring electricity, the customer is invoiced in c/kWh; and when the meter is measuring gas, the customer is invoiced in c/Mj. This recommendation is consistent with the principles within the National Measurements Act. It is not feasible to upgrade water metering to measure energy units that are not captured by the meter and to avoid complexity and further confusion, adding the option of measuring hot water based on the fuel source should be avoided.

[8] Australian Energy Market Commission, Updating the regulatory frameworks for embedded networks, (https://www.aemc.gov.au/market-reviews-advice/updating-regulatory-frameworks-embedded-networks)

5. **Where customers are billed in cents/MJ or cents/kWh, that the energy price charged, multiplied by the common factor, cannot exceed the maximum price of hot water as determined by the pricing methodology specified in draft recommendation 3.**

As in our response to draft recommendation 4, Altogether strongly recommend that water meters only should be used to measure the reticulation of hot water from the centralised system to customers and therefore sold to customers in c/Litre unit of measure. Where customers in historical arrangements are billed in c/Mj and charged metering and service charges, the total cost to the embedded network customer should be comparable to the *reference price* suggested in response to draft recommendation 3, based on the average usage in apartments.

6. **Regulated maximum prices for chilled water be extended to all centralised air conditioning services sold by an embedded network seller.**

Altogether do not agree with imposing a regulated maximum price for chilled water services due to the complexity that exists relating to varying technology, energy efficient models, maintenance schedules and technology used to support chiller capacity, age, location in the building, predicted control algorithms, occupancy impacts, metering arrangements. The centralised air conditioning system is usually owned by the building owner rather than the embedded network seller who has limited control over the replacement of asset items related to the infrastructure. To successfully regulate centralised air conditioning services, a metering device must be available for verification of usage, ability to report readings, repair, and maintenance however it is not common for chilled water devices to be easily accessible. Embedded network sellers must calculate the energy used by the centralised air conditioning services at some point in the energy transaction and this information should be available to customers so they can regulate their usage and participate in energy conservation practices that reduce unnecessary cooling loads.

Instead of regulating pricing for chilled water, Altogether recommends the embedded network seller be required to add air conditioning sale methodology to websites or shared information at the point of registration for the service, as well as implement strategies to educate and promote responsible use of centralised air conditioning services.

7. **Embedded network sellers of chilled water embedded networks be permitted to bill customers using either a consumption charge or a fixed daily rate. Sellers must use the same charging approach for all customers at a given site.**

Altogether do not recommend embedded network sellers of chilled water be permitted to bill customer using a daily fixed charge since it is not fair or equitable, nor does it promote responsible use of chilled water. This scenario might be appropriate in a commercial setting with fixed, internally regulated temperature controls and there were internal controls to monitor when premises were vacant. The daily fixed charge method should only be used as a last resort and clearly disclosed in the appropriate premise documentation at sale or lease. Under this method, it is presumed that if a customer does not want to receive chilled air, then they would be able to turn it off and not be charged. This facility would need to be available as well as a strong understanding of who would be responsible for the "disconnection / reconnection" process if available at the Energy Management System for the building. Altogether agree that a uniform approach should be used for all customers at a given site.

8. **Where an embedded network seller imposes a consumption charge for chilled water embedded networks:**
    a. **The maximum consumption charge in kWh is equal to the maximum electricity tariff for embedded networks, and**
    b. **No additional fixed rate charge is permitted.**

Altogether strongly oppose the recommendation that the maximum consumption charge is equal to the maximum electricity tariff for embedded networks, which we have opposed in response to draft recommendation 1.

IPART acknowledged that the sample size for developing this recommendation is from two small air conditioners. Altogether are more familiar with large-scale air-conditioning systems (in Queensland) where the thermal energy sold to customers' is not a one-to-one proportion of the energy used by the centralised air conditioning system. We are also familiar with customers who have been charged in kWh equal to the weighted average electricity tariff for embedded network and the metering has been calibrated to measure a thermal unit of energy, resulting in significant overcharges to customers.

We also do not agree that embedded sellers should not being able to charge an additional fixed service charge for the of chilled water to customers. If metering is available embedded network sellers are required to gather and process data on behalf of the customer as well as respond to customer service queries for air conditioning usage that is often more complex than electricity charging. Altogether would not support the recommendation that a service fee or fixed rate charge is not applicable. This is particularly true when the chilled water service is the only service applicable by the seller. In the case where chilled water is a secondary service, Altogether recommends a lower additional fixed rate be permitted to cover the cost of providing the additional service.

9. **Where an embedded network seller imposes a consumption charge for chilled water embedded networks, the seller must provide information on the efficiency of the centralised air-conditioning system on the seller's website. The information must include:**
    a. **The Energy Efficiency Ratio (EER)**
    b. **The Coefficient of Performance (COP)**
    c. **The energy input for the last financial year**
    d. **The energy output for the last financial year**
    e. **The system's brand name or model number, where available.**

As mentioned in response to draft recommendation 6, the ownership of centralise air conditioning plant is usually the responsibility of the building owner, and the embedded network seller is responsible for recovering the energy cost associated to the infrastructure. Altogether agree with the intention of the recommendation to disclose this information to customers.

10. **Where an embedded network seller imposes a fixed daily rate for centralised air-conditioning, the maximum fixed daily rate be determined by:**
    a. **Taking the annual consumption benchmark for a comparable individual air-conditioning unit (i.e. for a given system size and star rating as per the products listed on the Commonwealth Government's Energy Rating website)**
    b. **Dividing it by 365**
    c. **Multiplying it by the benchmark electricity consumption charge.**

As mentioned in Altogethers response to draft recommendation 7, this method is a last resort where no other method of billing is available for on-selling chilled water to customers. While consultation by energy professionals may be necessary for this recommendation, the determination seems fair in lieu of historical data and building owners should be encouraged to review this annually and report the findings to customers.

11. **That the NSW Government enact legislation to authorise IPART to determine maximum prices for the sale of electricity, gas, hot and chilled water to customers in embedded networks in NSW.**

Altogether strongly opposes the recommendation to enact additional levels of regulation responsible for determining methodology and enforcing pricing specifically to NSW embedded network customers. We consider that this contradicts the objective of the Action Plan to align embedded network customers with those in tradition energy supply arrangements and the AER should remain responsible for monitoring investigating and enforcement with compliance obligations under the national energy laws. Altogether recommends the NSW Government

enact legislation that required embedded network sellers disclose standardised information that enables customers to benchmark themselves against the services provided to non-embedded network customers.

12. **That the NSW Government authorises the Energy and Water Ombudsman NSW (EWON) to:**
    a. **Refer to the regulator any complaints that EWON reasonably suspects indicate an embedded network seller may have breached an embedded network pricing determination, and**
    b. **Provide to the regulator any supporting information or documentation regarding customer complaints it receives related to embedded network sellers not complying with the maximum price.**

Altogether actively support the ability of the Ombudsman to refer complaints to the Regulator regarding price, explicit informed consent and other issues that involve embedded network sellers no complying with the rules.

13. **That the statutory framework**
    a. **Authorise the regulator to investigate whether an embedded network seller has complied with an embedded network pricing determination.**
    b. **Authorise the regulator, by notice in writing, to require an embedded network seller to provide information, documents, or evidence for the purposes of an investigation.**
    c. **Provide that it is an offense, subject to a monetary penalty for non-compliance, to refuse or fail to comply with a notice requiring the provision of information, documents, or evidence.**

Altogether are a strong advocate for the regulatory oversight necessary to determine whether an embedded network seller has complied with pricing determinations as well as providing the necessary information to customers prior to their registering with the embedded network seller so they can ask appropriate questions and the necessary information be disclosed to them for decision making.

In the review of compliance with the maximum price for electricity and gas the AER is the most appropriate regulatory body as that is within its jurisdiction within the relevant retail exempt seller guidelines at present. The AER is the regulatory body who oversees compliance with the exemption framework and with the National Energy Retail Rules. Should IPART also have matching powers, there may be circumstances in which an operator is in breach of both the cap imposed under the national framework and in NSW. That would not be an efficient outcome and one that could be avoided by the AER continuing to have sole responsibility.

14. **Embedded network sellers be required to publish their current prices on their websites.**

Explicit Informed Consent is required by all embedded network customers and is relevant to all matters of the contract to ensure they are adequately disclosed including the purpose and use of the consent. Considering that, rates applicable to the contract is the minimum information required to be published on the seller's website.

As noted above, Altogether supports the use of the Energy Made Easy website in terms of the publication of pricing information in relation to electricity and gas. Consumers within New South Wales are familiar with the Energy Made Easy website. Comparisons on the same website would be a preferable outcome to requiring consumers to find the relevant website of their provider and would enable consistency between states and territories that have adopted the national framework.

15. **The regulator be empowered to take one or more of the following enforcement actions where it is satisfied an embedded network seller has not complied with an embedded network pricing determination:**
    a. **Directing an embedded network seller to take specified action within a specified timeframe to remedy the non-compliance.**
    b. **Impose a monetary penalty on the embedded network seller and/or a person who is the director of or involved in the management of an embedded network seller.**

Altogether support this and respond in line with draft recommendation 13.

16. **The statutory framework require the regulator, before issuing a direction or imposing a monetary penalty to:**
    a. **Consider the action the embedded network seller has taken or is likely to take in respect of the non-compliance and be satisfied it is nevertheless appropriate to issue the direction/impose the penalty.**
    b. **Consider whether the non-compliance has been or is likely to be the subject of any other penalty or action or any claim for compensation and be satisfied it is nevertheless appropriate to issue the direction/impose the penalty.**

Altogether support this and respond in line with draft recommendation 13.

17. **The statutory framework provide that failure by an embedded network seller to comply with a compliance direction of the regulator is an offense and is subject to a monetary penalty.**

Altogether support this and respond in line with draft recommendation 13.

18. **That IPART be the regulator that determines and enforces compliance with the maximum prices for the sale of electricity, gas, hot and chilled water to customers in embedded networks in NSW.**

In line with Altogether response to draft recommendation 11 and 13, we do not support another the introduction of another body of regulatory enforcement and consider that the AER remain the responsible body.

19. **New hot and chilled water embedded networks are not prohibited in NSW.**

Altogether support the recommendation that new hot and chilled water embedded networks are not prohibited in NSW and the deeming of hot water services as a form of 'energy' service would have the effect of increasing the regulatory and compliance requirements of retailers within embedded networks, increasing network owners' obligation to pricing and efficiency, consistent with the NEO and the NSW Governments Net Zero Plan.

20. **The NSW Government consider imposing additional disclosure requirements as part of its action to improve disclosure and consumer awareness for prospective purchasers and tenants under the Embedded Network Action Plan.**

Altogether strongly support an embedded network section of the Energy Made Easy comparison tool to improve disclosure and consumer awareness as recommended in 2021 in response to draft recommendation Altogether provided a recommendation during the AER consultation regarding *Updating the Network and Retail Exemption Guidelines*, on 2 July 2021 with respect to providing standardised information to customers. (https://www.aer.gov.au/authors/altogether-group)

If you have any questions regarding this matter, please contact Sarah Price [redacted]

Yours faithfully

[redacted]

Sarah Price

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