

Submission

Enabling the Transformation of Energy

NSW Department of Planning, Industry & Environment

February 2022



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To: The Department of Planning, Industry & Environment

Re: Promoting innovation for NSW energy customers – Public Consultation Paper

Thank you for the opportunity to comment on the issues raised in the questions set out in your paper.

Active is an embedded network operator, operating nationally, with most of our clients located on the east coast of Australia. Our Embedded Network business is comprised of consulting to Developers, Strata Managers, and owners/managers of buildings, regarding the setup and ongoing management of embedded networks. As part of this service, we also offer a billing management agency service and Embedded Network Manager (ENM) function to these entities, thus ensuring their end customers receive a similar service offering to normal network conditions and meet relevant legislative requirements of operating these networks.

The billing of Centralised Hot Water (CHW) is a large part of our business in Victoria and NSW. Our service provision ensures that the Owners Corporations in those buildings are relieved of the costs associated with the operations of these centralised systems, both energy & water as well as maintenance and other costs of management and that residents, be they owner occupiers or tenants, are fairly charged only for the resources they consume.

We intend only to comment in this submission on the section on **Hot Water embedded networks: Issue 7: Enhancing protections for hot water embedded network customers.**

Active supports regulatory approaches that provide consumer protections equally across all sections of the energy market, be they traditional or embedded.

Active is keen to provide our input as we feel that there are aspects of the consultation questions and the background on why the regulation of hot water needs attention that may have far reaching, unintended, consequences. These consequences may include people's livelihoods, closure of businesses, and major disruption of the embedded network sector as well as other associated industries, including the building and construction industry and, most importantly, the end consumer being negatively impacted financially.

Active look forward to working with the Department in this review process. If you require any further information in relation to this submission, please do not hesitate to contact us.

Kind Regards,

Andrew McMeekin

General Manager

COSTS ASSOCIATED WITH CHW

In every centralised hot water (CHW) solution, be it embedded or DNSP, the system has attached to it several cost inputs that need to be recovered at some point by someone. The most common cost areas are:

- Energy
- Water
- Plant
- Maintenance

In the DNSP model, the recovery of the energy used to heat the water is a market solution with no impact on the Owners Corporation.

The DNSP has had the responsibility for the installation of apartment gas and water metering, cub meters the hot water plant for energy and then provides the read data to the market to allow for full retail contestability.

This market model does not consider in any way, the additional costs associated with CHW, which are the water consumed and the installation and supply of the plant. These costs are not borne by users, but form part of the building operating costs which are distributed to Lot Owners on a Lot Entitlement / Lot Liability basis.

This methodology relates only to Lot size and not at all to usage. In the DNSP model it is not possible to access individual lot data to fairly attribute costs based on actual consumption, potentially disadvantaging many lot owners.

COST BENEFIT OF EMBEDDED NETWORK VERSUS DNSP

In the embedded model, where the operations are performed on behalf of, and controlled by, the Owners Corporation (OC) as is the case in the Active model, the OC is better able to manage the distribution of the costs associated with the supply of hot water.

For Lot Owners, this means that costs are substantially reduced and more fairly allocated. Plant installation and maintenance costs are substantially reduced, and plant efficiencies are more likely to be maintained.

Meters are more likely to be accessibly located and better able to be maintained for accuracy.

Wholesale gas purchases are likely to be lower through volume buying, resulting in lower overall supply costs and the ability to pass these savings on to users.

For Residents, this means that the overall cost of supply is most likely to be cheaper than the retail market.

In Active Embedded Network sites for example, this can be 10% or greater under that of the average price in embedded networks, which in turn is much lower than the comparable rate in the DNSP model.

PRICE COMPARISONS

On behalf of a major client, in 2020/21 Active undertook detailed modelling on the DNSP model versus the Embedded Network model customer using market retail pricing for DNSP sites and the average identified pricing of the primary Tier 1 provider of embedded hot water.

The results were startling:

Site	Volume (Decalitres)	MJ	Rate/MJ	Daily Supply c/day	Annual Bill (inc GST)
A - DNSP	8	33.13	0.041558	0.6644	\$745.05
B - EN	8	33.13	0.0201	0	\$586.92

The process was conducted using two (2) different sites and the results were the same in each site, an average of a 21% saving against the standard market retail pricing.

This data applies only in the savings to residents and does not take into account the additional savings for the Owners Corporation and Lot Owners in the removal of additional costs for maintenance and other operational elements that they need to pay in the DNSP model.

Should you include some wording around the above figures do not take into consideration the addition savings received by the OC for plan install, maintenance and management?

SERVICE COMPARISON

Traditional common hot water system	Active Comment	Hot water embedded network	Active Comment
Hot water meters owned and maintained by network provider	True, though building/meter age and access difficulties suggests many meters are failing and estimated.	Hot water meters owned and maintained by a third party (embedded network provider)	This is not always the case. In many instances the meters are owned by the Owners Corporation and are common property assets. The ownership does not reflect the quality.
Each hot water meter is registered with a meter identification number	True. This is in a database managed by the DNSP to allow market movements.	Hot water meters are off-market and not registered	This is partially true. Meters are registered and identifiable, just not in a market sense. Meters are also subject to, standards for accuracy.
The customer is billed for the energy used to heat their hot water in megajoules (MJ) or kilowatt hours (kWh)	True. Energy reading is based on information provided by the DNSP formed from a litre reading.	The customer is typically billed for the hot water in litres	Correct. This is the same measurement used in the DNSP model.
The customer has access to retail competition	True	The customer does not have access to retail competition	True
The customer is covered by the consumer protections under the NECF	True, though these are limited to an extent with hot water.	The customer does not have access to the consumer protections contained in the NECF (if billed in litres)	True, however there are standard protections in place with customers for managing their accounts that are consistent with protections in the NECF.
The customer has access to EWON dispute resolution	True	The customer may not have access to EWON dispute resolution	True, but providers have a dispute resolution process in place.

SUBMISSION RESPONSES

ISSUE 7 CONSULTATION QUESTIONS

QUESTION 7A.

Is it appropriate to require the sale of hot water to be treated as the sale of energy, to allow hot water embedded network customers to be given similar consumer protections as those in traditional common hot water systems?

ACTIVE RESPONSE:

Active sees that there are 2 separate and distinct questions being asked in this question.

1. Is it appropriate to require the sale of hot water to be treated as the sale of energy?

And

2. Should hot water embedded network customers to be given similar consumer protections as those in traditional common hot water systems?

Q1:

Active's response to the first question would be no, it really is not appropriate to treat the sale of hot water in an embedded network as a sale of energy.

In both the DNSP model and in embedded networks, the base unit of consumption is Litres of water. In the DNSP model, the common factor calculations rely on several factors to perform the conversion to kilojoules / megajoules of gas. These factors are subject to on-site variations in performance that impact on customer pricing.

On the embedded network model, similar conversion models are used to determine the volume of energy required to heat a litre of water, however the subsequent account in litres is more reflective of the cost of the service.

It would appear more customer centric for the billing of the service to be in units that reflect the service being provided. Water is measured in litres.

Additionally, whilst the DNSP model allows for retail competition amongst the larger retailers in NSW that provide hot water billing, internal price modelling has shown that the rates provided in embedded network hot water solutions are approximately 20% lower than the DNSP on comparable usage patterns.

The DNSP model allows for large retail margins to be earned on gas and supply charges making the solution profitable for the retailer. With recent dramatic wholesale price rises in gas in NSW, retail customers are likely less protected from these than those in embedded networks.

Q2:

Yes, customers in hot water embedded networks should be provided with protections similar to those in the traditional market. As shown in your documentation, the Essential Services Commission VIC (ESCV) has provisions for hot water customers in the Energy Retail Code.

Customers in electrical embedded networks are provided with almost identical protections to grid connected customers, so the focus should be more on providing protections than on the nature of the billing unit.

QUESTION 7B.

Do you foresee any unintended consequences of requiring hot water embedded network operators to bill customers for hot water in the underlying energy source (in cents per megajoule or kilowatt hour), rather than as a separate 'hot water' product (in cents per litre)?

ACTIVE RESPONSE:

Yes, there are likely to be major consequences of making this change.

To be able to bill customers in megajoules of gas, the billing entity would be required to hold a gas license from the AER in the NECF, as the deemed exemption status allowing for the billing of unmetered gas appliances would no longer apply. Many of the entities billing for hot water do so on behalf of the Owners Corporation who derive the benefit of the solution. Few of these hold licenses from the AER for gas.

Even the tier 1 retail businesses that operate embedded networks for electricity and hot water traditionally do not operate using their retail licensed entities.

To restrict the market only to licensed operators solely for the purpose of changing the billing unit would potentially impact many buildings for compliance. It is also likely that the move would reduce competitiveness in the industry and progressively limit the operation of hot water networks to a smaller number of larger players who do not necessarily always act in the best interests of the building.

Additionally, many of the embedded network operators are nimbler than the retail market and can assist the Owners Corporation in the recovery of other costs beyond just energy, with recovering water being the most common. This reduces the burden on the Owners Corporation and Owners to pay for additional consumption items through Lot Entitlement.

QUESTION 7C:

Do you consider there to be any barriers that may prevent a hot water embedded network operator from billing customers in the underlying energy source?

ACTIVE RESPONSE:

Yes, there are two main areas of concern for embedded network billing operators.

The first is the requirement to adjust all internal modelling to reflect the DNSP conversion process / common factor calculations on a building-by-building basis. This could result in considerable internal system challenges, billing errors and, most importantly, considerable customer confusion. The change would likely result in bill variations from the previous methodology, in most cases increases from the change in retail gas pricing.

The other area of concern may be the technical capacity of a billing system to provide gas billing solutions. Systems that have been designed for electricity and water billing may not be able to include gas billing with the result being a major increase in operating costs with little defined benefit to the end user.

QUESTION 7D:

Do you consider the AEMO Retail Market Procedures (NSW and ACT) formula for the calculation of energy usage to be appropriate and reasonable for use within hot water embedded networks?

ACTIVE RESPONSE:

No. It is designed for a market system that in and of itself has substantial deficiencies. It is subject to hot water plant efficiency issues in a more substantial manner than the newer embedded network solutions.

Loss factor calculations are arbitrary and there is little capacity for the Customer to have any insight at all into the true way their water is billed.

We see no ongoing technical issue with the retention of the billing in litres in embedded networks.

CONCLUSION

As stated in the response to Question 7a, Active fully supports the introduction of additional consumer protections in the embedded network hot water market. Requiring properly defined protections similar to those provided in the market DNSP solutions, is a sensible solution and one that can be incorporated without making a substantive and unnecessary change to the billing units.

Our analysis indicates that there are substantial issues in the DNSP market in respect of accuracy and the primary DNSP had made a submission to the AER in 2019 to adjust the traditional metering structure to provide cost benefits to the DNSP and end user.

Issues with maintenance and accuracy of metering compounded by access issues, particularly in older buildings, also create substantial customer and retailer service and pricing issues.

The utilisation of the embedded structure creates benefits across the board from the DNSP to the Developer in construction to the Owners Corporation and finally the end user who becomes the primary beneficiary financially.