

- We will be recording the workshop for internal use only
- Please mute your microphone
- Please turn on your camera (webcam)
- We will start at 10:02am

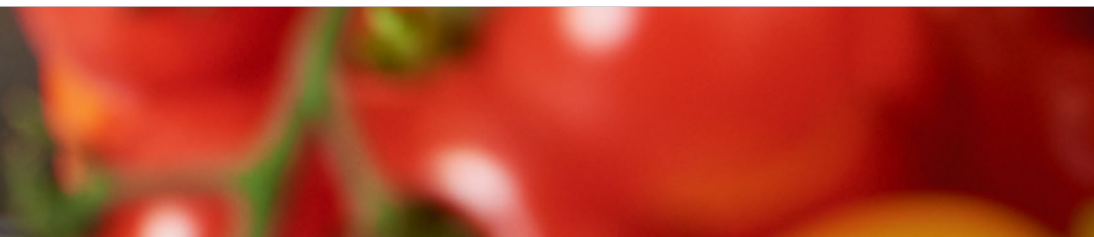


**IPART** Independent  
Pricing and Regulatory  
Tribunal | NSW

## Embedded networks pricing

Stakeholder workshop – 21 September 2023

10 am – 12 pm





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# Welcome and Acknowledgement of Country

Deborah Cope  
Acting Chair

# Agenda

- 01 Overview
- 02 Session 1: Decision-making criteria
- 03 Session 2: Electricity
- 04 Session 3: Hot water and gas
- 05 Session 4: Chilled water
- 06 Next steps for the review



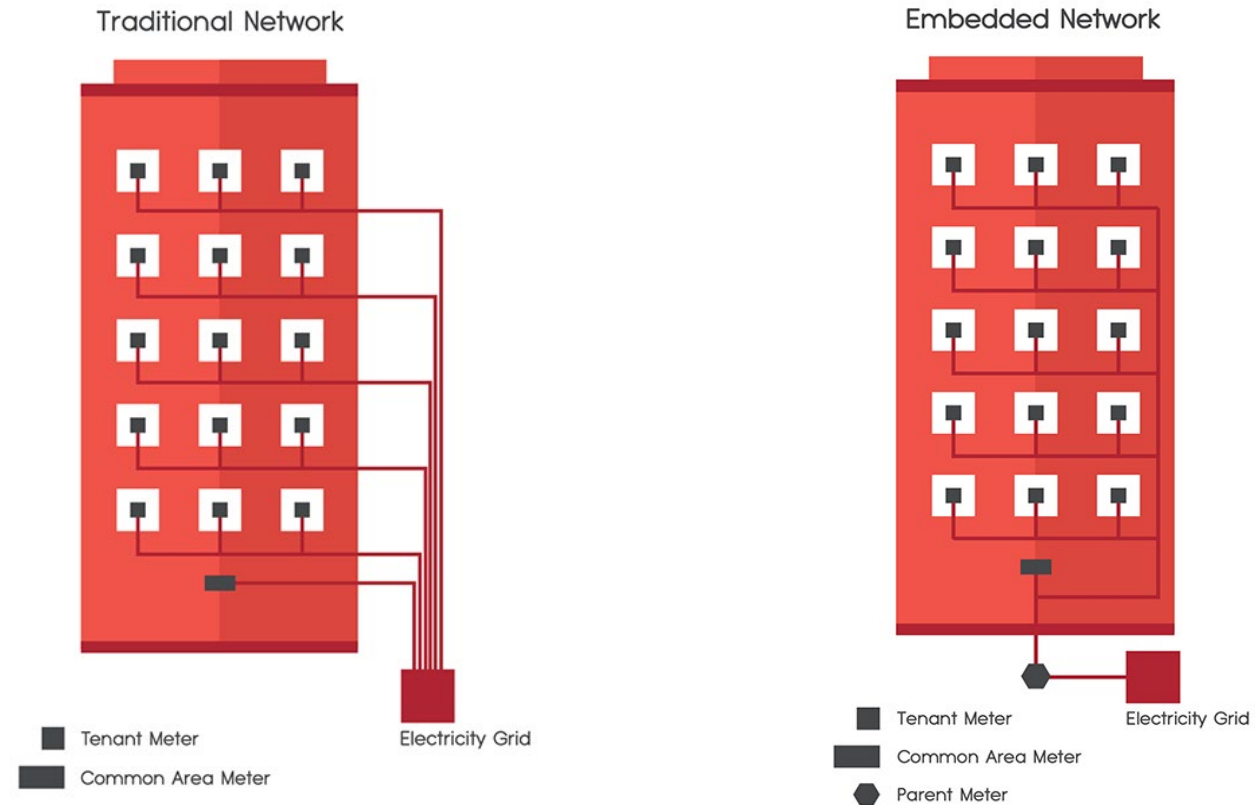
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## Overview

Sandra Gamble  
Tribunal member

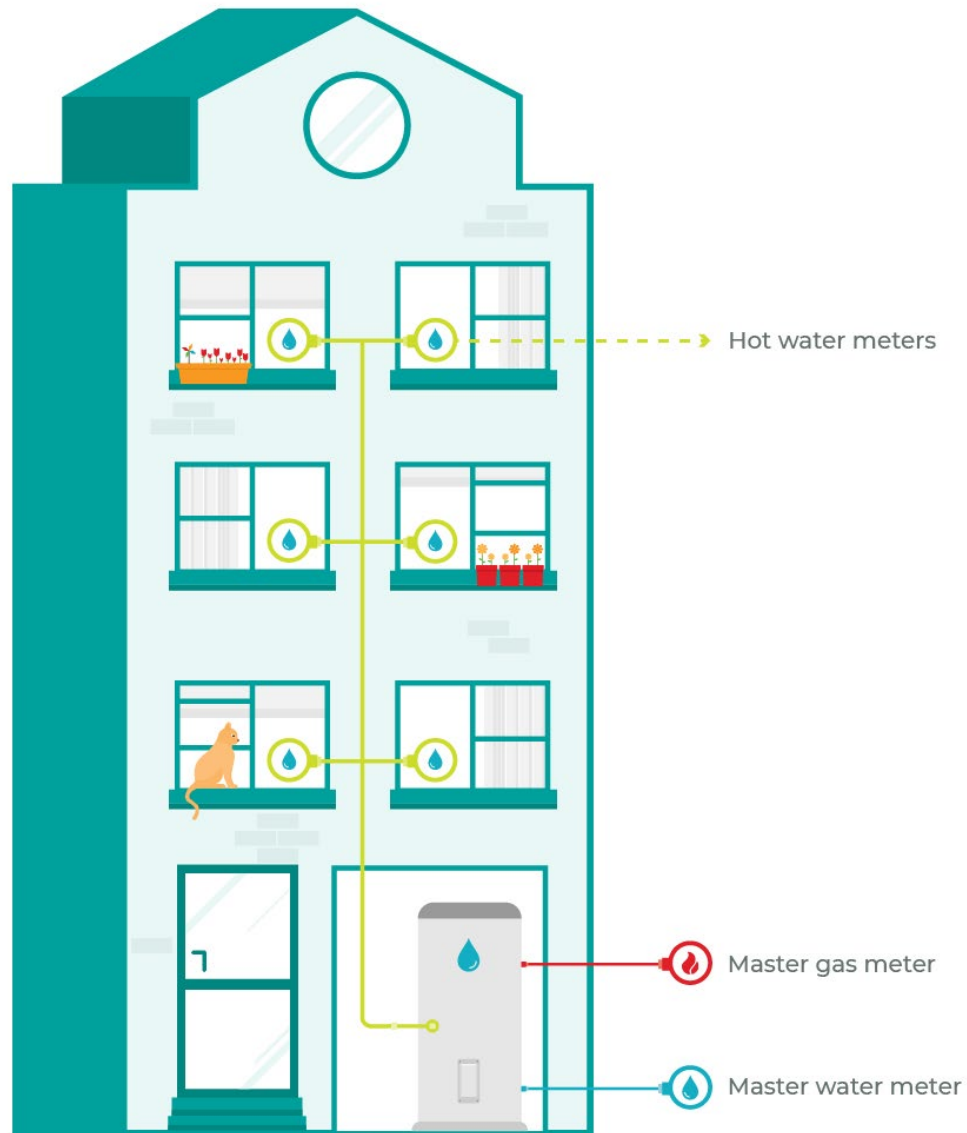
# What are embedded networks?

Embedded networks are private energy networks for services such as electricity, hot and chilled water and gas.

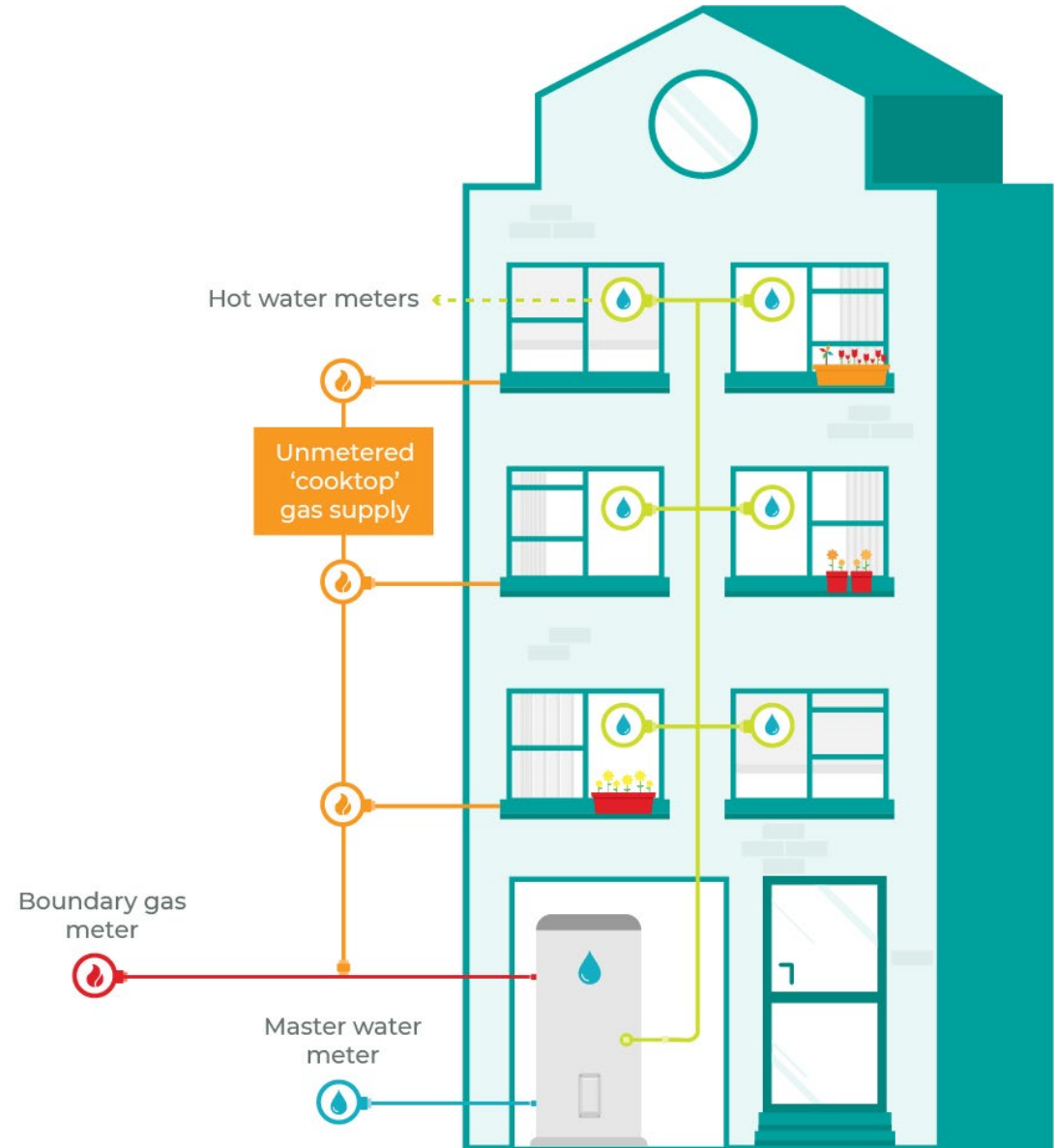


Source: Energy On

## Common Hot Water System



## Gas & Hot Water Embedded Network



# Regulatory framework for energy pricing protections

	Non-Embedded Network	Land Lease communities: Caravan and residential parks	Strata (apartments/town houses)	Small Business
Electricity	<p>DMO is the maximum price for standing offers</p> <p>DMO used as a reference price for market offers.</p>	<p><b>Exempt seller:</b> Can only pass through actual costs i.e. Residential (Land Lease) Communities Act; Reckless method</p> <p><b>Authorised retailers:</b> No price cap (Residential (Land Lease) Communities Act and AER Retail Exempt Selling Guidelines do not apply)</p>	<p><b>Exempt seller:</b> Cannot charge more than the DMO: (AER Exempt Seller Guidelines condition 7 applies)</p> <p><b>Authorised retailers:</b> No price cap (AER Retail Exempt Selling Guidelines do not apply)</p>	<p><b>Exempt seller:</b> Selling to less than 10 small businesses (can obtain a deemed exemption, in which case cannot charge more than the DMO)</p> <p><b>Authorised retailers:</b> No price cap applies (AER Retail Exempt Selling Guidelines do not apply)</p>
Gas	No maximum price	<p><b>Exempt Seller:</b> Can only be charged if separately metered (Residential (Land Lease) Communities Act); cannot charge more than standing offer (AER Exempt Selling Guidelines condition 7 applies)</p> <p><b>Authorised retailer:</b> No price cap; can only be charged if separately metered</p>	<p><b>Exempt Seller:</b> Cannot charge more than standing offer of local area retailer (AER Exempt Selling Guidelines condition 7 applies)</p> <p><b>Authorised retailer:</b> No price cap</p>	<p><b>Exempt Seller:</b> Cannot charge more than standing offer of local area retailer (AER Exempt Selling Guidelines condition 7 applies)</p> <p><b>Authorised retailer:</b> No price cap</p>
Hot Water	N/A	No maximum price	No maximum price	No maximum price
Chilled Water	N/A	No maximum price	No maximum price	No maximum price

# Embedded Networks Action Plan

## IPART's review is just one action in the NSW Government's Embedded Network Action Plan

In addition, the Embedded Network Action Plan proposes to:

- Pursue regulatory and legislative changes to provide enforceable consumer protections to customers of hot and chilled water embedded networks
- Expand the Energy Accounts Payment Assistance scheme to embedded network customers
- Improve disclosure and consumer awareness for prospective purchasers and tenants
- Review strata legislation to protect electricity embedded network customers in strata schemes from long contract terms



We have been  
asked to make  
recommendations  
to the NSW  
Government

1. An appropriate methodology for IPART to use in setting maximum prices for hot and chilled water supplied through embedded networks
2. Whether new embedded networks for hot and chilled water should be prohibited in NSW
3. An appropriate methodology for IPART to use in setting maximum prices for gas supplied through embedded networks
4. Whether the Commonwealth Government's Default Market Offer is the appropriate maximum price for electricity embedded networks, or where a different method should be used to determine maximum price for electricity embedded networks
5. The compliance and enforcement framework for any new price protections

# Review timeline



We have started  
our consultation  
with stakeholders



32

submissions to our  
Consultation Papers



85

respondents to our  
NSW consumer survey

# Feedback from customers

## **High bills**

- High bills that can be hard to understand or verify
- Potential benefits of embedded networks not passed onto consumers
- Problems with metering and the efficiency of systems

## **Lack of flexibility**

- Barriers to leaving an embedded network
- Issues accessing solar energy and feed in tariffs

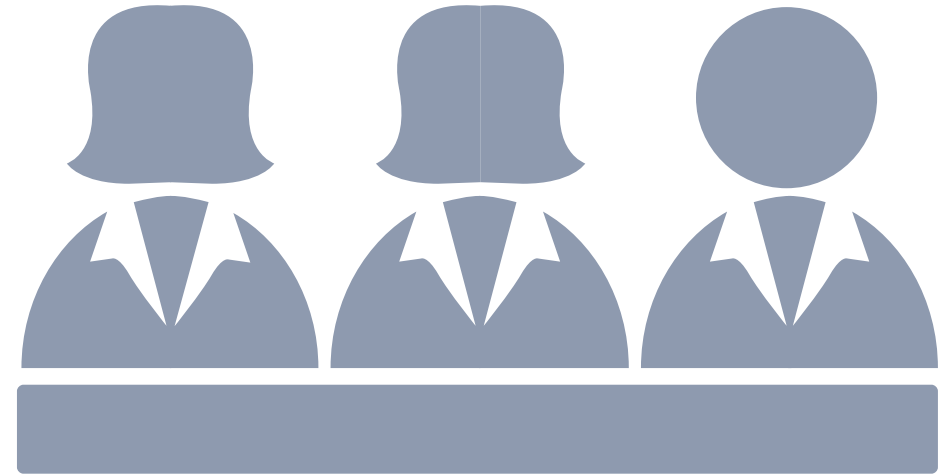
## Feedback from industry

- Support for using the DMO as price cap
- Gas prices are not currently regulated for on-market customers
- Prices should allow for profit margin, maintenance, and capital costs of embedded networks
- Embedded networks can be more cost-effective and sustainable than alternatives

## Potential benefits of embedded networks

- Almost all stakeholders agreed that embedded networks have potential to benefit customers, for example:
  - Lower costs
  - Space saving for centralised heating/chilling water
  - On-site renewable and sustainable solutions, including batteries and electric vehicle charging
- Most stakeholders considered that putting in place appropriate customer protections for hot and chilled water is preferable to prohibiting new hot and chilled water embedded networks
- If benefits aren't being recognized by customers, the business model is not the right energy solution

# Consumer experience





Session 1  
Decision-making  
criteria



# Proposed criteria in our consultation papers

Our overarching objective in setting maximum prices is to protect customers in embedded networks from unreasonably high prices.

In addition, we consulted on the following draft criteria:

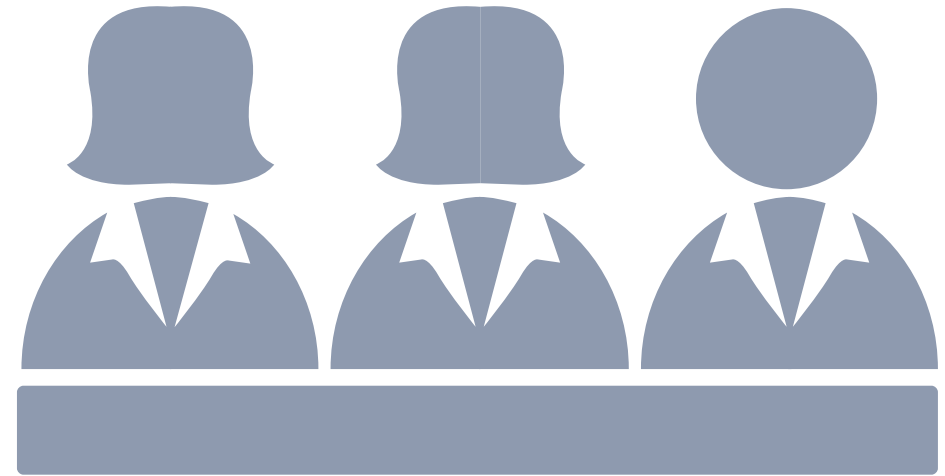
- Ensure there is no interruption to supply
- Ensure that an efficient embedded network provider is able to recover its efficient costs of supply
- Respond to changes in the costs of supplying customers
- Incentivise customers and embedded network operators to supply and use energy efficiently
- Be simple for customers to understand and easy to apply
- Allow for cost-reflective pricing
- Be enforceable

## Feedback

We received substantial feedback on our assessment criteria for assessing different pricing options including:

- Equitable, affordable, efficient and independent prices are required to protect embedded network consumers
- Balance consumer protections with the commercial viability of embedded network operators
- Incentives to promote energy efficiency are appropriate for operators but not for consumers.
- Additional criteria included consideration of network costs, innovation and investment, size and ownership of the embedded network operator.

# Feedback and questions





## Session 2: Electricity

# Possible electricity pricing methodologies



## Default Market Offer (DMO)

- Currently applies only to exempt sellers



## Discounted DMO

- Some stakeholders suggested a small percentage discount (e.g. 5-10%) is appropriate



## Market price-based benchmark

- Stakeholders suggested various benchmarking options, including benchmarking to the lowest offer and the median offers on the market.

# Mixed levels of support for the Default Market Offer (DMO)

Most retailers/operators supported using the DMO as a maximum price

- Consistency with the broader energy regulatory framework
- Avoiding confusion for consumers who are used to and understand the DMO
- A price cap below the DMO could distort the market and lead to worse outcomes for customers
- Some providers' business model was structured around the DMO

Most consumer advocacy groups did not support using the DMO

- DMO's purpose is to encourage shopping around which, in practice, most embedded customers cannot do.
- Most on-market customers pay below the DMO.
- Costs in the DMO also include costs not applicable to embedded networks (e.g. customer acquisition and retention costs)

# Benchmarking considerations



## The form of the maximum price

Whether to set a bill cap e.g. DMO or maximum supply and usage charges as recommended by the land lease statutory review



## Benchmark price level

Some stakeholders suggested benchmarking to the lowest market offer, while other suggested the market median



## Different customer types

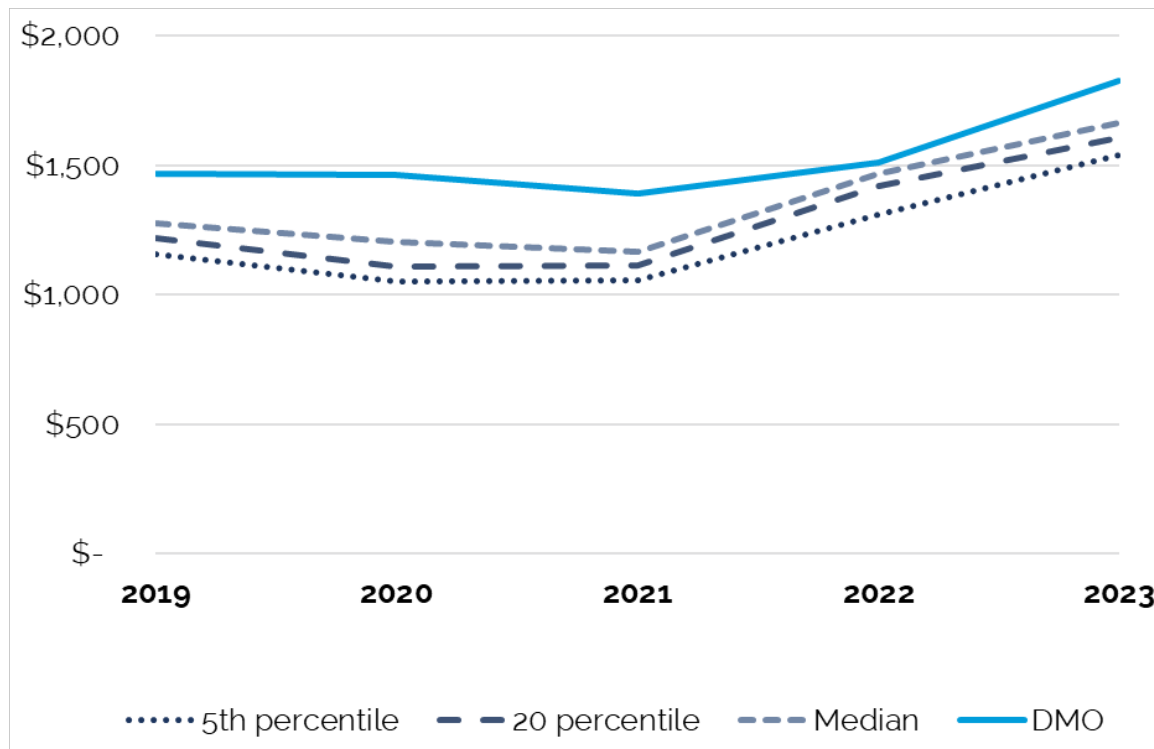
Mixed views from stakeholders on whether a different maximum price should be set for each customer type



## Frequency of price adjustments

Some stakeholders expressed concern about annual adjustments not keeping up with cost volatility

# How market offers compare to the DMO – example (Ausgrid)

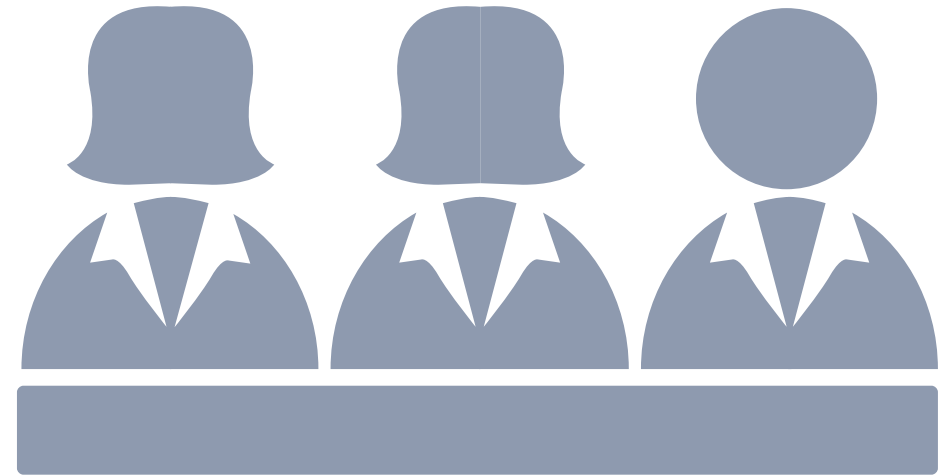



% difference compared to DMO

	2019	2020	2021	2022	2023
<b>Median</b>	-13%	-18%	-16%	-3%	-9%
<b>20<sup>th</sup> percentile</b>	-17%	-24%	-20%	-6%	-12%
<b>5<sup>th</sup> percentile</b>	-21%	-28%	-24%	-13%	-16%



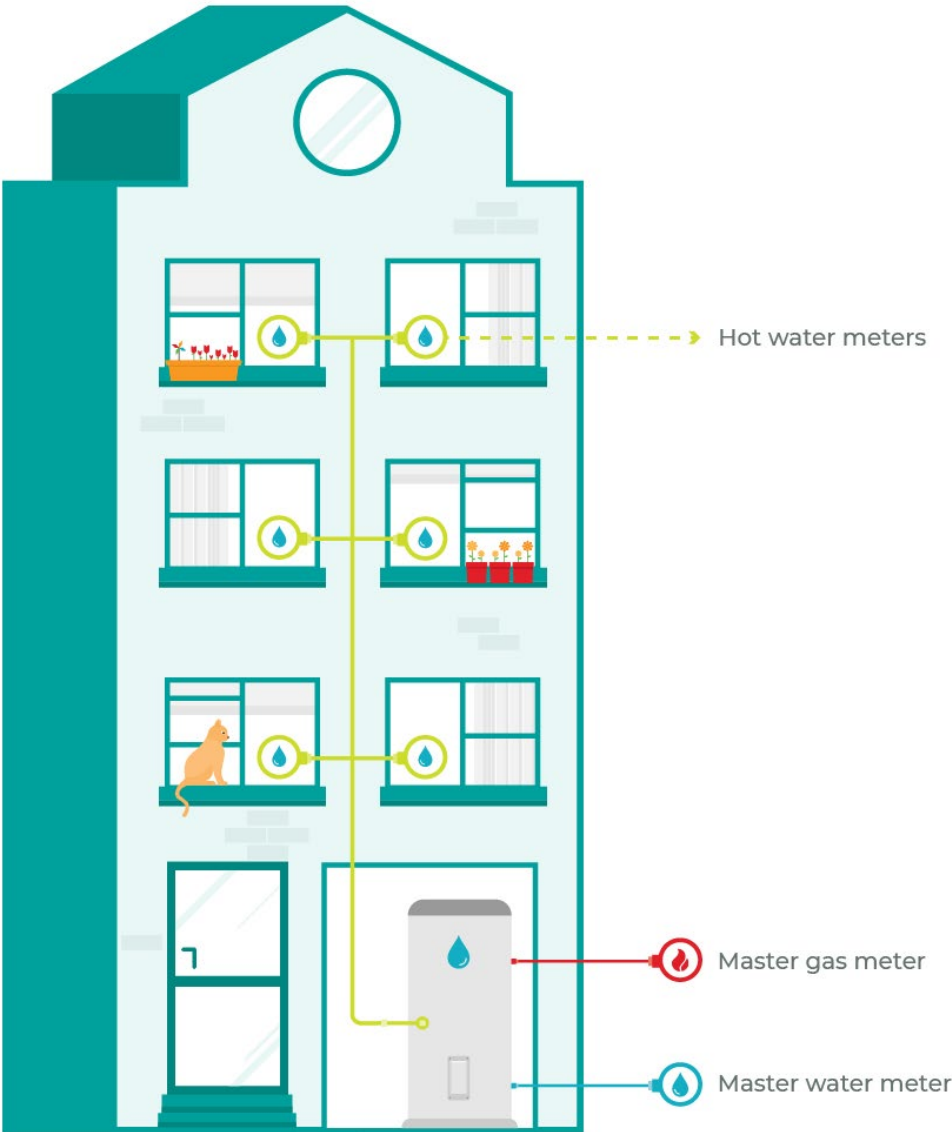
# Feedback and questions



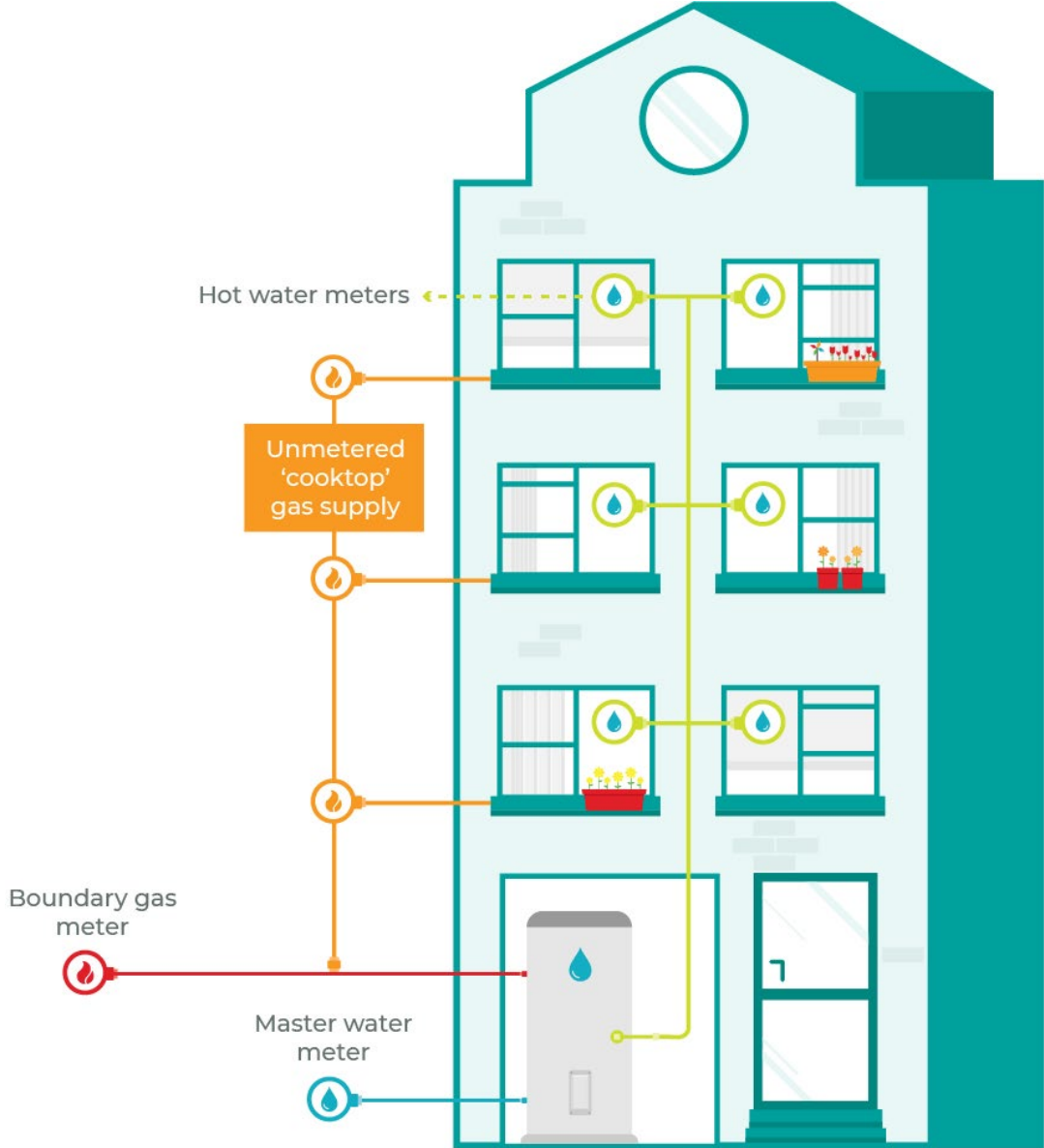


Session 3:  
Hot water and gas

# Common Hot Water System



# Gas & Hot Water Embedded Network



## Possible hot water pricing methodologies

1. Benchmarking fuel prices to market and applying a common/conversion factor:
  - Using underlying fuel source at site
  - Based on supplying using gas
  - Based on supplying using electricity
2. Deriving a price from the DMO (controlled load)
3. Based on costs of supply (including capital outlay)

# Price based on water or energy consumption?

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- Most suppliers bill in water units

## **Water units**

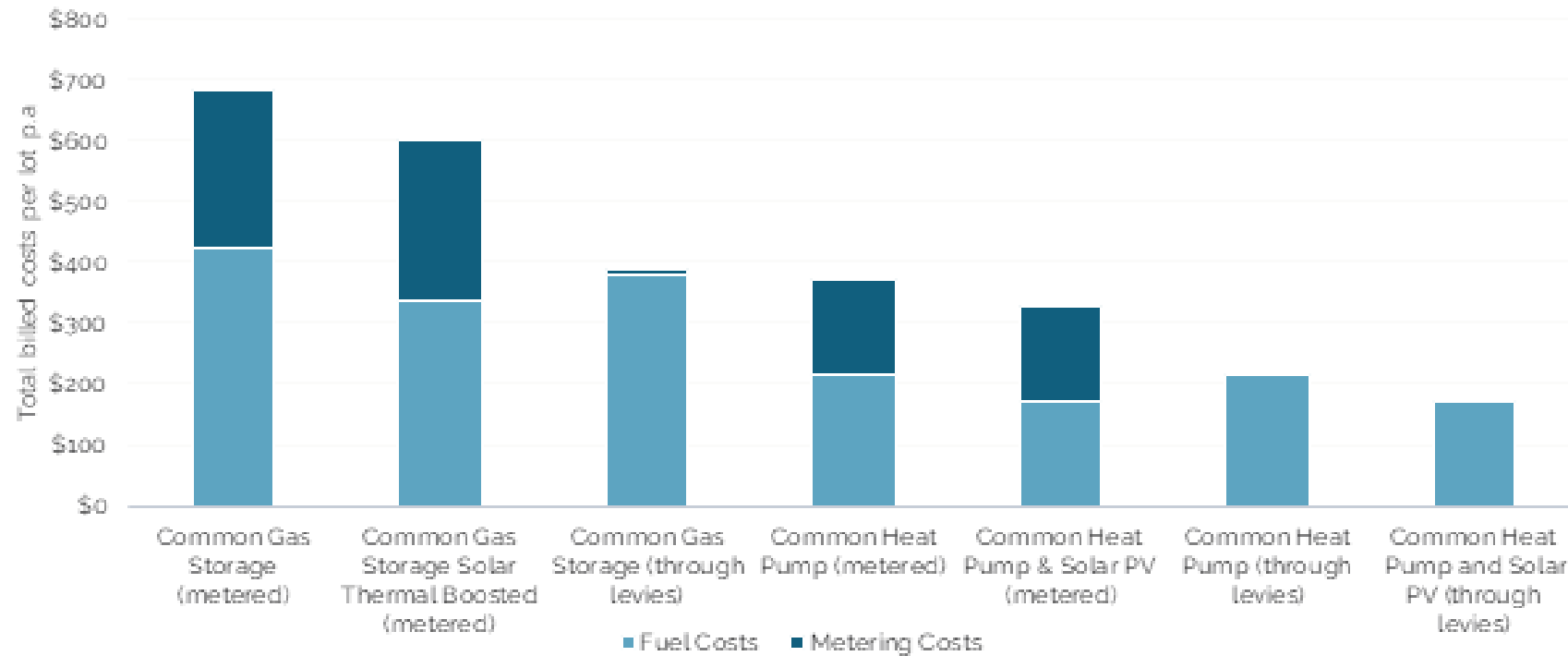
- Provides an efficiency incentive for supplier
- More certainty, less volatility for customers
- Less confusing for customers
- Doesn't require additional metering

## **Energy units**

- Greater transparency, can compare to energy rates

- The AER considers that the National Energy Consumer Framework does not apply regardless of billing units

# How can prices be set to encourage the uptake of energy and cost-efficient options?



Source: adapted from North Sydney Council, *HEAT PUMP HOT WATER IN STRATA*, 2023, p 2.

## Possible gas pricing methodologies

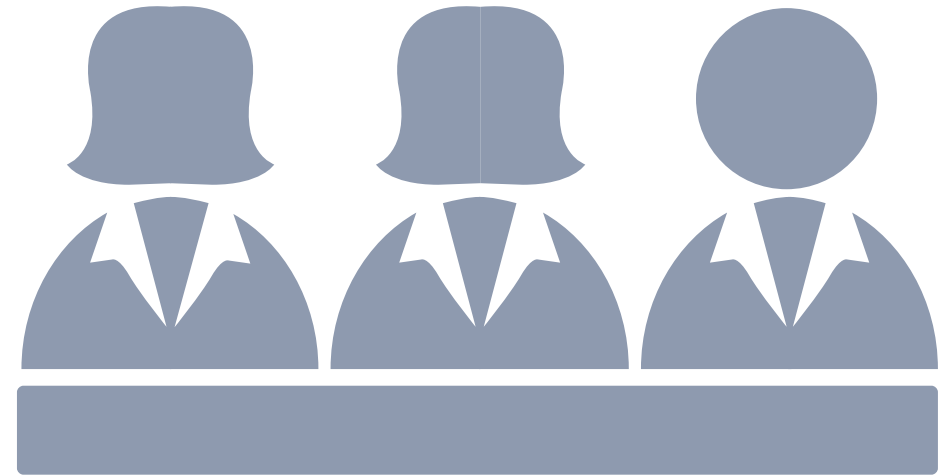
- A retail market-price benchmark, with no additional consumption charges where consumption is unmetered.
- Setting a fixed daily rate based on the bill of a non-embedded network customer at a given level of consumption, based on the retail market prices of gas
- Setting a fixed rate based on current embedded network rates and applying an escalation factor, based on a market-based gas price benchmark

# Questions

- Are there standalone gas embedded networks (that are not paired with hot water services)?
- Are there gas embedded networks in land lease communities?
- Are there gas or gas hot water embedded networks outside of the Jemena area? If so, do suppliers charge different prices for hot water in these areas?



# Feedback and questions





Session 4:  
Chilled water

## Stakeholder feedback

- Pricing methodology to include energy and other ongoing costs, capital costs and a reasonable profit.

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- Systems have different conversion factors based on design.

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- The conversion factor could be regulated, similar to Victoria

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- Should be separately metered and charged on consumption

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- Metering chilled water is difficult and that a flat daily service fee is appropriate

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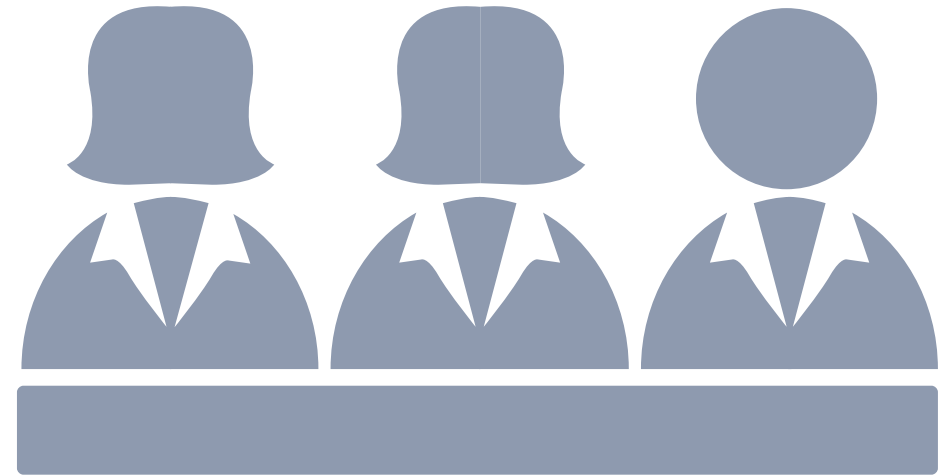
- A pricing methodology should apply to other centralised air-conditioning services

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- Chilled water embedded networks should only be allowed if they meet a set of criteria to ensure consumer benefits

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# Feedback and questions





Next steps

# Review timeline

