



# **AusNet Gas Services Pty Ltd**

## **Gas Access Arrangement Review 2018–2022**

### **Appendix 5B: Energy Research Study 1 Report**

**Submitted: 16 December 2016**





# AusNet Services.

## *Energy Research.*

### *Study 1: Report.*

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Research Conducted: April 2016





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# Background and methodology.



# Background and context

There is limited existing research on the reference and views of existing gas customers in Victoria. To address this a series of studies is planned to facilitate customer and other stakeholder engagement for the gas network. The purpose of this program of research is to:

- ➔ Provide a greater understanding of the attitudes and perceptions of customers towards the gas network services, as well as investigating customer preferences in relation to service delivery and communications;
- ➔ Understand customer and other stakeholder views on trade-offs that are most important to them in the context of gas network services.

In the short term, the information gleaned from this research will be used to inform the development of AusNet Services' upcoming GAAR proposal. In the long term, however, it is hoped that the findings inform network planning and the future vision of the gas network.

This report summarises the findings from the initial exploratory study (Study 1), the focus of which was to better understand the areas of key concern for customers.







Five (5) focus groups were held with AusNet Services residential customers in South Melbourne and Bendigo. These locations were selected to ensure representation across both Melbourne Metropolitan and Regional customers. Fieldwork was conducted between 12<sup>th</sup> and 14<sup>th</sup> April, 2016.

Group	Description	Specs	Location
1	Pre-family/ younger life stage	<ul style="list-style-type: none"><li>• 18-34 years</li><li>• Mix of gender, bill size, income, own/ rent</li><li>• No children</li></ul>	<b>Metro</b> South Melbourne
2	Family	<ul style="list-style-type: none"><li>• 30-49 years</li><li>• Mix of gender, bill size, income, own/ rent</li><li>• Children at home</li></ul>	<b>Metro</b> South Melbourne
3	Post family/ older life stage	<ul style="list-style-type: none"><li>• 50+ years</li><li>• Mix of gender, bill size, income, working vs. retired, own/ rent</li><li>• Empty nesters/no children at home</li></ul>	<b>Metro</b> South Melbourne
4	Family	<ul style="list-style-type: none"><li>• 30-49 years</li><li>• Mix of gender, bill size, income, own/ rent</li><li>• Children at home</li></ul>	<b>Regional</b> Bendigo
5	Post family/ older life stage	<ul style="list-style-type: none"><li>• 50+ years</li><li>• Mix of gender, bill size, income, working vs. retired, own/ rent</li><li>• Empty nesters/no children at home</li></ul>	<b>Regional</b> Bendigo



# Research Approach

## Rationale

### *Customer Focus Groups*

Why Customer Focus Groups?

***Customer focus group discussions were recommended due to the ability to deliver detailed context and understanding of customer knowledge, attitudes, perceptions and preferences relating to gas network issues.***

Focus group discussions enabled complex concepts and industry language to be broken down by group moderators and explained to participants through the use of two way dialogue and stimulus boards. This ensured participants were given opportunities to respond to, and clarify key discussion topics, allowing them to be informed and provide meaningful feedback and opinion.

Through this approach, we were able to generate rich context through a series of guided discussions with AusNet Services customers.





Report summary  
and key themes.



# Report summary and key themes



## Background.

This report details key insights from the initial exploratory study in AusNet Services' planned program of research amongst gas customers and other stakeholders. This study was designed to capture customer attitudes and perceptions towards, and understanding of, the gas network.

## Methodology.

Five (5) focus groups were conducted between 12<sup>th</sup> and 14<sup>th</sup> of April 2016 with AusNet Services residential customers in South Melbourne and Bendigo. These locations were selected to ensure representation across both Melbourne Metropolitan and Regional customers.

The sample was structured to cover a range of age groups (from 18 to 50+) and life stages.

## Objectives.

The main objectives of this study, and the wider program of research, are to:

- » Provide a greater understanding of the attitudes and perceptions of customers towards the gas network, as well as investigating customer preferences in relation to service delivery and communications;
- » Understand customer and other stakeholder views on trade-offs that are most important to them in the context of gas network services.

## Key topics.

The report is structured around the key topics of discussion:

- » Role and value of gas in customers' lives;
- » Awareness and understanding of the gas supply chain and the role of AusNet Services in this context;
- » Customer attitudes and perceptions in relation to safety and reliability;
- » Expectations around the future consumption of gas.



# Report summary and key themes



## **Role and value of gas in customers' lives.**

Gas is highly valued as an instantaneous and reasonably priced energy source. The responsive and immediate nature of gas is a key benefit for heating and cooking.

However, if the gas supply were to be interrupted the main concern from the customer perspective would be the loss of hot water to maintain personal hygiene.

The information provided on gas bills is sufficient to allow customers to monitor usage over time. Further or more frequent data is not generally required.

## **Awareness and knowledge of the gas supply chain and AusNet Services' role.**

Customers are familiar with gas retailers and there is some limited knowledge of gas production and processing. However, other aspects of the supply chain are not well known and little thought is given to the process by which gas reaches the home.

From the customer perspective AusNet Services plays a behind the scenes role in the provision of gas. Awareness of both the AusNet Services brand name and the organisation's responsibilities is very limited.

Due to the highly reliable and consistent nature of the gas supply there is little impetus for customers to consider the supply chain or to interact with AusNet Services.

## **Customer prioritisation of AusNet Services' investment opportunities.**

In the context of the range of investment activities carried out by AusNet Services, those directly relating to safety are prioritised by customers.

This is reflected in the thought processes evidenced when weighing up the relative merits of safety, reliability and keeping costs down: Safety is considered of primary importance and should not be compromised. Reliability is next on the scale of importance and has a strong perceived link to safety. Gas costs are seen as reasonable and customers are not prepared to compromise on either safety or reliability to reduce bills.



# Report summary and key themes



## Safety and reliability.

Although safety-related incidents are not common, safety is a major concern due to the potential seriousness of the outcome of safety breach: explosion or death from inhalation.

Gas is perceived to be an extremely reliable energy source. Outages are rare and many of the research participants had not experienced an unplanned outage in their lifetime.

The costs of ongoing maintenance and providing consistent reliability across the network are expected to be factored into the existing pricing structure. From the customer perspective, there should be no need to raise prices to cover these activities. However, given the hypothetical choice between lower bills or higher/more uniform reliability the latter option is preferred.

## Future scenarios.

Gas is a valued energy source which customers envisage using into the future. However, gas consumption is expected to decrease over time as new technologies are further developed and adopted.

It was difficult for customers to conceptualise and understand hypothetical trade-offs involving current and future consumption scenarios. Those who were able to form an opinion tended to favour the position that the costs of gas infrastructure should be spread evenly over the lifetime of the asset, regardless of the level of usage at a particular point in time.



Detailed  
findings.



Role and value of gas in  
customers' lives.



## Key theme

- ➔ *Gas is highly valued as an instantaneous and reasonably priced energy source. The responsive and immediate nature of gas is a key benefit for heating and cooking. However, if the gas supply were to be interrupted the main concern from the customer perspective would be the loss of hot water for showering.*

# Knowledge of the nature and origins of gas is limited.

## Knowledge of the nature and origins of gas:

- ➔ Customers have generally given little thought to what gas is or where it comes from.
- ➔ Their knowledge often only extends to the expectation that gas comes out of the ground or from the sea. Gippsland was suggested as the likely origin of Victoria's gas supply.
- ➔ In terms of environmental impact customers are unclear as to whether gas is a clean energy source and do not appear to have given this issue much consideration.
- ➔ There is some expectation that gas will run out at some point in the future, causing a move to other forms of energy.
- ➔ The issue of fracking was mentioned by one respondent.





# Gas is highly valued as an energy source providing instantaneous and readily controllable heat.

## **Gas as an instantaneous energy source:**

- ➔ A key benefit is the instantaneous nature of gas. This is particularly valued in providing immediate heating in winter and a very responsive heat source for cooking.

## **A consistent supply of hot water is highly valued:**

- ➔ Although instantaneous heating and cooking are very important to customers, hot water for showering is the feature most likely to be missed if the supply is interrupted. Recall of the outage caused by the Longford explosion in 1998 remains strong, with the absence of hot water for personal hygiene the most salient memory.
- ➔ This was perhaps the most salient issue on the basis that, in the event of an outage, cooking and keeping warm can be achieved by other means, whereas hot water for showering cannot.







# Gas is regarded as a reasonably priced energy source.

## Attitudes to gas bills/pricing:

- The price of gas, while acknowledged to have increased over time, is generally regarded as reasonable.
- There was a notable absence of spontaneous negative comments around the cost of gas during the focus groups.
- However, there is still some wariness in relation to scenarios in which gas prices may increase.
- Gas is generally believed to be cheaper than electricity. However, this conclusion is reached by comparing bill totals. The amount of each fuel used is not taken into consideration and customers acknowledge that gas may be perceived as cheaper simply because less is used.
- As electricity bills are commonly more expensive than gas bills the contrast plays a role in forming the conclusion that gas is a reasonably priced fuel.
- There is little recall of media coverage, either positive or negative, around gas pricing. One participant had heard a news report which raised the issue of gas prices rising as the resource becomes more scarce.





# The information currently provided on gas bills to monitor gas consumption and costs is sufficient.

## Gas bill information and price comparisons:

- When looking at gas bills customers generally compare costs using totals rather than looking in more detail at units consumed.
- Considerable use is made of graphs provided on bills which provide comparisons with usage at the same time the previous year or with average usage by similar households. Where there is a discrepancy this may indicate a change in usage patterns (which may require review) or a fault with the meter (requiring further investigation if the issue persists).
- There is little interest in receiving information about gas usage or other gas-related issues over and above that already included in gas bills. Those who monitor their gas consumption over time do not generally feel the need to receive information more frequently.
- Some customers make use of resources such as iSelect to compare gas retailers with the aim of choosing the most cost effective option. Comparisons are reportedly difficult to make, however, given the variations in packages/offers/conditions from the various retailers.



*It (gas bill) gives you graphs to compare with last year and compare to the average household.*



*I tend to look more at the usage than the breakdown of charges.*







Although the cost of gas is not generally a concern for customers, some still take measures to reduce consumption.

**Reducing/managing gas consumption:**

- ➔ Measures taken to reduce gas consumption appear to be more related to a general interest in avoiding wasteful use of gas waste rather than a specific concern about prices.
- ➔ Heating is the major area where measures may be taken to reduce consumption. Strategies include turning down the temperature, limiting the number of rooms heated, wearing warmer clothing and ensuring that heating is turned off when the house is not occupied.
- ➔ Customers place high value on a readily available supply of hot water for personal hygiene and appear less likely to compromise their consumption of hot water for showering. However, there were instances of the hot water temperature being turned down.
- ➔ There is little evidence that customers restrict their use of gas for cooking.





Awareness & knowledge  
of gas supply chain.

Role of AusNet Services.

# Key themes

- ➔ *Customers have some level of familiarity with gas retailers yet there is limited knowledge of gas production and processing.*
- ➔ *Key aspects of the supply chain are not well known and little thought is given to the process by which gas reaches the home.*
- ➔ *From the customer perspective, AusNet Services plays a behind the scenes role in the provision of gas.*
- ➔ *Awareness of both the AusNet Services brand name and the organisation's responsibilities is very limited.*
- ➔ *Due to the highly reliable and consistent nature of the gas supply there is little impetus for customers to consider the supply chain or to interact with AusNet Services.*

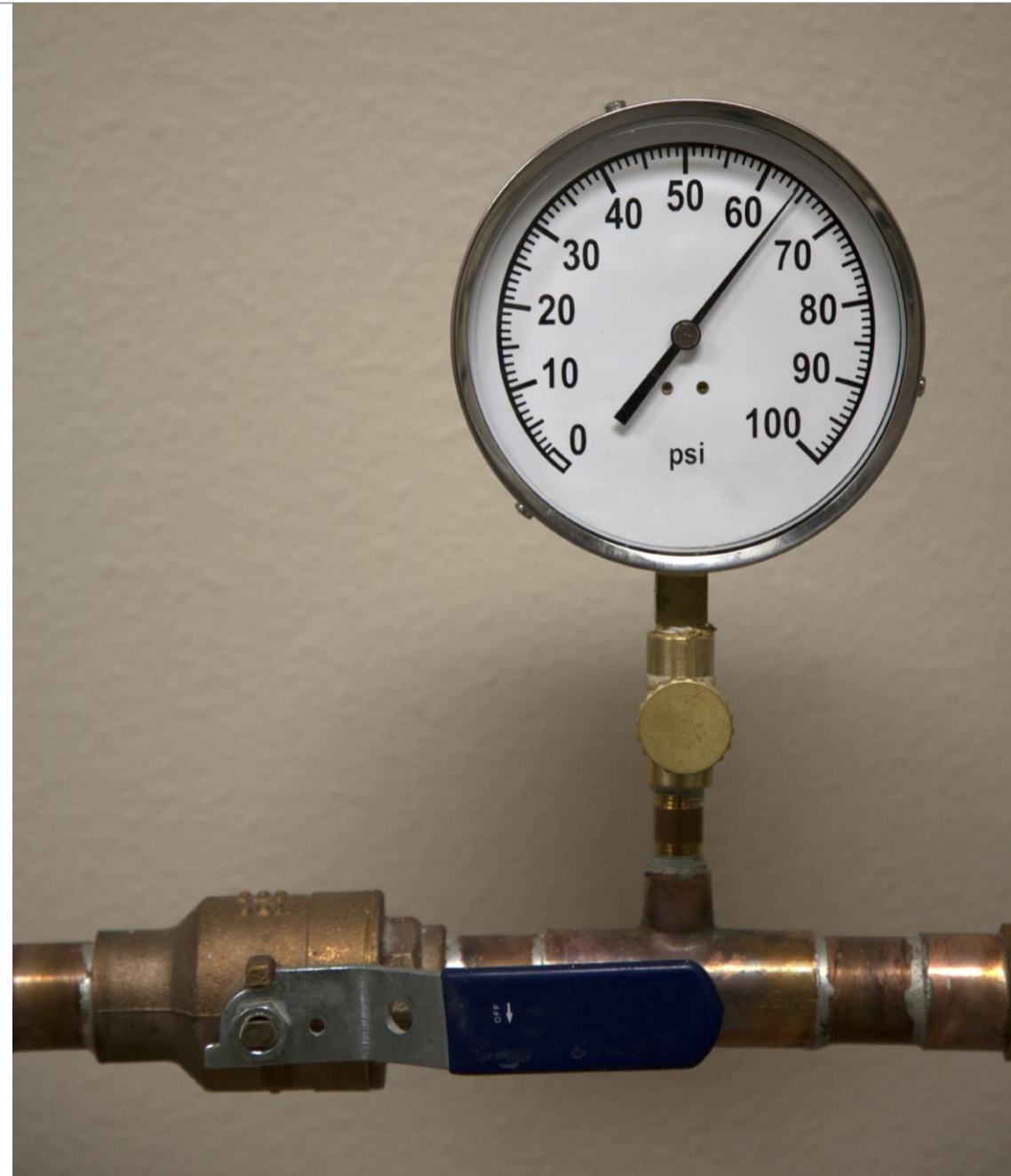
*In the context of the range of investment activities carried out by AusNet Services, those directly relating to safety are prioritised by customers. This is reflected in the thought processes evidenced when weighing up the relative merits of safety, reliability and keeping costs down: Safety is considered of primary importance and should not be compromised. Reliability is next on the scale of importance and has a strong perceived link to safety. Gas costs are seen as reasonable and customers are not prepared to compromise on either safety or reliability to reduce bills.*



# Customers have given little thought to the process by which gas is supplied to their homes.

## Awareness of the gas supply chain:

- Customers are familiar with gas retailers and are able to identify several by name.
- There is limited awareness of the gas production and processing elements of the supply chain, with a minority able to name companies (e.g. ESSO, Shell) or areas (e.g. Gippsland) involved. Overall, however, customers are unclear about the nature and origins of gas.
- The process by which gas is transmitted and distributed has not come to the attention of customers and is unlikely to do so unless there are major issues with supply.
- In the absence of knowledge about the rest of the supply chain, retailers may be assumed responsible for the reading and maintenance of meters and/or for the distribution network.
- Retailers are expected to be the first port of contact for any issues with the safety or reliability of the gas supply. There is also some awareness of the emergency number included on the gas bill.



# Awareness of the AusNet Services brand and the role played by AusNet Services in the gas supply chain is very limited.

## Awareness of AusNet Services brand:

- There was very little spontaneous mention of AusNet Services or SP AusNet as an organisation associated with gas supply.
- When prompted with the logos very few respondents had heard or seen the name “AusNet Services” or “SP AusNet”. Awareness appears slightly higher in metropolitan than regional areas.

## Awareness of AusNet Services role:

- As knowledge of the gas supply chain is limited and awareness of AusNet Services very low there is little understanding of the role that AusNet Services plays.
- Customers are not familiar with the concept that gas distributors are specific to a geographical area or with the area relating to AusNet Services.
- As such, AusNet Services very much operates in the background from the customer perspective.







As the gas supply is reliable there is little perceived need for communication between AusNet Services and their customers.

**Communication requirements:**

- ➔ When made aware of AusNet Services' role, customers see little need for communication in either direction unless there is a problem with the gas supply.
- ➔ Research participants could not recall receiving any communications from AusNet Services and had not had cause to contact them directly.
- ➔ If there were to be a planned outage it is envisaged that AusNet Services would inform affected customers via SMS, letter or door to door communication. There is also some expectation that this communication would come from or via the retailer, particularly as many are unfamiliar with the AusNet Services name and may therefore overlook a message from this source.
- ➔ In the event of a gas leak or unplanned interruption to supply, the retailer or the emergency number provided on the gas bill would be the first point of contact.
- ➔ Other than safety or outage issues, customers do not feel the need for any further information about their gas supply or the role of AusNet Services.



# Customers are not aware that a proportion of their bill goes to AusNet Services.

## Awareness of gas bill components:

- ➔ Gas customers have generally given little thought to the composition of their bills.
- ➔ There is some understanding that the bill consists of a fixed service charge plus a variable fee for gas used.
- ➔ As awareness of AusNet Services and its role in the supply chain is low, customers have no understanding that part of their payment goes to AusNet Services or the proportion of the bill involved.
- ➔ In addition, as gas costs are not generally considered excessive or problematic, customers are not motivated to scrutinise bills with a view to minimising costs.





Gas safety.  
Customer comprehension  
and priorities.

# Safety:

## Overarching message

- ➔ *Although safety-related incidents are not common, safety is a major concern due to the potential seriousness of the outcome of safety breach: explosion or death from inhalation.*



# Customers are aware that a safety incident could have serious consequences.

## Safety concerns:

- Explosion and death through inhalation are the major gas-related safety concerns.
- In addition to death through inhalation, fainting and generally “making you sick” were mentioned as possible consequences.
- The incident at the Longford plant in 1998 was mentioned in each of the focus groups. Although it is mainly remembered for the impact on personal hygiene (lack of hot water to shower), there is awareness that an explosion was involved.
- An incident in which a car crashed into a shop causing a gas explosion was also recounted.
- There is some concern about the possibility of death through inhaling either gas itself or carbon monoxide from faulty gas heaters. Customers recall media reporting of such incidents.



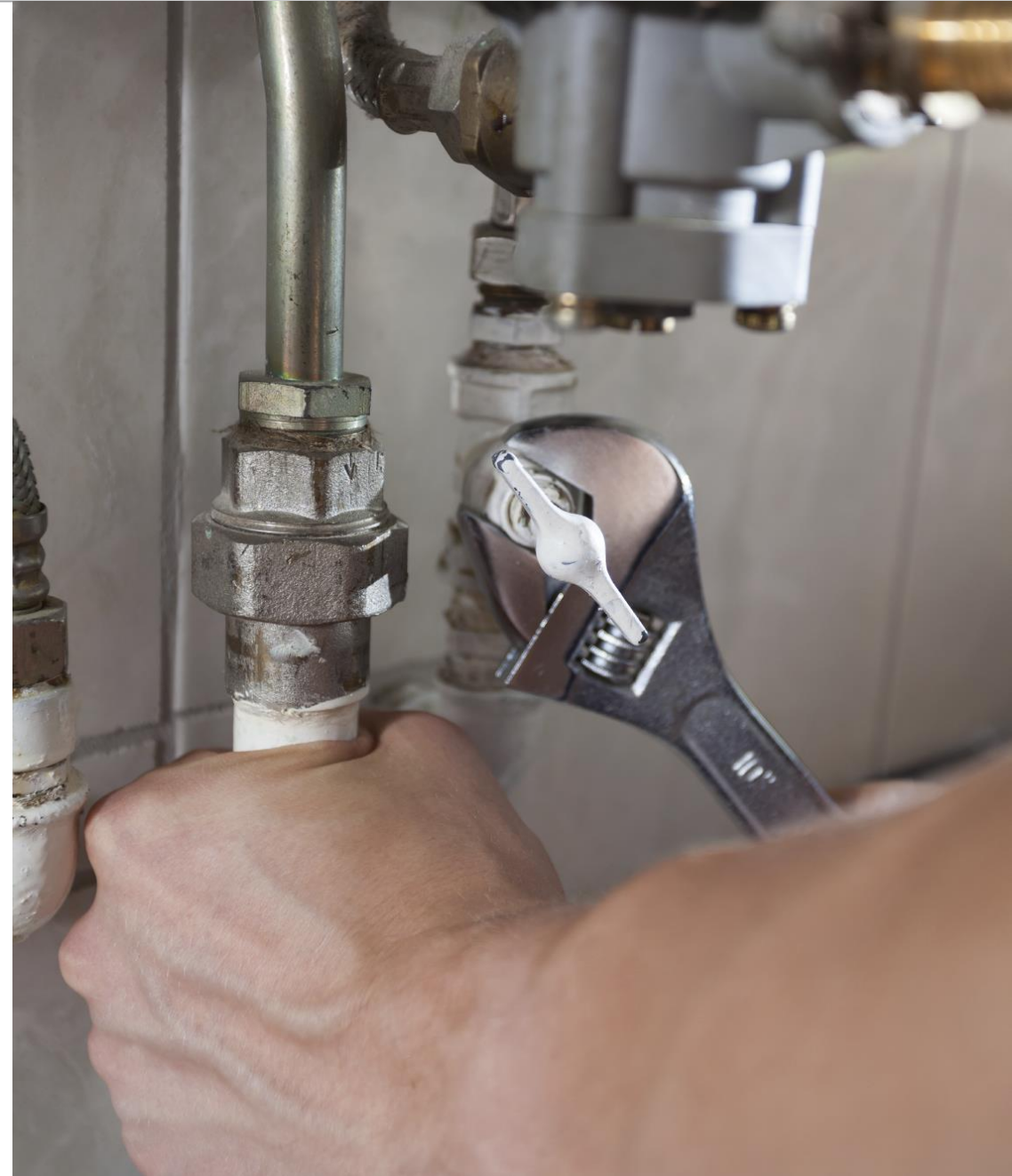




## Although safety incidents are rare, gas leaks are taken seriously due to the potential for fatal outcomes.

### Experience of gas leaks and other safety incidents:

- The experience of smelling gas and therefore suspecting a leak appears to be relatively common, with several research participants reporting such incidences, either in their own homes or the surrounding neighbourhood.
- While actual safety incidents (explosions, deaths) are believed to be rare, concern is high due to the potentially fatal nature of the consequences.
- As such, gas leaks are generally taken seriously and reported to the retailer or using the emergency number on the gas bill. Customers are not generally aware, however, that the emergency number links them with AusNet Services.
- For those who are renting the leak may be initially reported to the landlord.
- While gas leaks are generally taken seriously and reported, some customers wait to see if the smell of gas dissipates before reporting the incident. The rationale in this case is that some leaks are temporary and therefore less of a concern.





Given the serious nature of safety concerns, customers are not willing to trade a reduction in the cost of gas for compromised safety.

**Trading safety for cost reductions:**

- ➔ From the customer perspective safety is non-negotiable.
- ➔ Although gas is not considered unsafe in the sense that customers are concerned on a daily basis or reluctant to use gas due to safety concerns, the human cost of a safety incident is potentially very high.
- ➔ Safety is prioritised more highly than other factors such as reliability of supply or minimising costs to the customer.
- ➔ There is no interest in compromising safety to reduce the cost of gas to the customer.





Gas reliability.  
Customer comprehension  
and priorities.

## Reliability: Overarching messages

- ➔ *Gas is viewed and perceived as a reliable energy source. Outages are rare and many of the research participants had not experienced an unplanned outage in their lifetime.*
- ➔ *The costs of ongoing maintenance and providing consistent reliability across the network are expected to be factored into the existing pricing structure. From the customer perspective, there should be no need to raise prices to cover these activities. However, given the hypothetical choice between lower bills or higher/more uniform reliability the latter option is preferred.*

# Gas is perceived as an extremely reliable energy source.

## Experience of gas outages:

- ➔ Gas outages, planned or unplanned, had been experienced by very few participants.
- ➔ As such the gas supply is regarded as extremely reliable and this feature is highly valued.
- ➔ To a large extent the reliability of gas is taken for granted, with the expectation of consistent and instant access to heating, cooking and hot water.
- ➔ If an outage were to occur the lack of hot water showering is expected to be the main inconvenience as this is not easily replaced using other energy sources. Heating may be available from alternative sources and warmer clothing can be worn. Similarly, alternative options (e.g. microwave) are likely to be available for cooking.
- ➔ Gas is seen as more reliable than electricity, with outages far less common.
- ➔ The statistics relating to frequency of gas outages (one outage every 45 years lasting 46 minutes on average per customer) confirm perceptions that gas is an extremely reliable energy source.
- ➔ As the gas supply is consistently reliable, customers see little need for communication to or from AusNet Services.



“Gas is regarded by the community as an essential service, with an accompanying expectation that it will be uninterrupted under all but the most extreme (force majeure) events.”



Customers agree with this statement.



# The Longford incident highlights the value of a consistent gas supply.

Recall of the gas outage caused by the explosion at the Longford gas plant:

- ➔ Although it took place in the 1998 there is still strong recall of the outage caused by the explosion at the Longford plant.
- ➔ A lack of hot water for showering is remembered as the major inconvenience caused by the incident, indicating the importance of this benefit to customers.
- ➔ The Longford incident serves as a reminder to customers of the value of a consistent gas supply, highlighting the consequences of a lengthy gas outage.



“ Remember the 90s when the whole thing shut down?

“ Years ago. Back ages ago. There were weeks without gas. We had to shower at the footy club.

# Planned outages are rare and expected to be easily managed.

## Planned outages:

- ➔ Most research participants had not experienced planned outages.
- ➔ In such an event the expectation is that their gas retailer would contact them in advance via SMS, letter or door to door visit.
- ➔ Planned outages are not envisaged to cause major inconvenience as customers can prepare by showering beforehand, cooking with other power sources, wearing warmer clothes or leaving the house until the outage is over.
- ➔ The ideal timing for a planned outage is during the middle section of a week day (e.g. from 10am to 3pm) or during the night. Due to the importance of heating, summer outages would be preferable to winter.
- ➔ As planned outages are very rare there is no perceived need to either pay more to avoid them or pay less to accept more of them.

**“** With notice you can plan around it. It's not as inconvenient for planned outages, especially for a few hours.

**“** Last year when they were widening the road they shut it off for three house a day during work hours. People knocked on the door to advise us.





# Unplanned outages are rarely experienced and only expected to cause disruption if lengthy.

## Unplanned outages:

- ➔ Again, there was little experience of unplanned outages.
- ➔ In this event customers expect to call their gas retailer or do a more general internet search to find out about the cause and duration.
- ➔ Unplanned outages would be inconvenient but not a major issue unless they last long enough to compromise personal hygiene or endanger vulnerable people relying on heating in winter.
- ➔ There was some concern around the need to relight pilot lights following an outage. Not all customers are familiar with how to go about this.

**“** I'd go on the internet and Google "Gas outage in Hoppers Crossing."

**“** It's an inconvenience. It depends on how long and what time of day. You can live without gas easier than (without) water.



# Customers are generally unwilling to trade reliability for cost reductions.

## Reliability versus cost trade off:

- ➔ Reliability of supply is perceived as less important overall than safety. However, in principle customers are not open to compromising reliability for a reduction in their gas bill.
- ➔ Several factors impact on consideration of this issue:
- ➔ The cost of gas is perceived as reasonable and there is therefore no strong motivation to reduce bills.
- ➔ The inconvenience caused by an outage, especially if the supply of hot water is impacted, would be significant and is not worth risking.
- ➔ Reliability is believed to be strongly related to safety in this context. The thinking here is that an unreliable system implies deteriorating infrastructure and/or more gas leaks which will, in turn, compromise safety. Therefore as safety is non-negotiable, so is reliability.
- ➔ However, for some customers the decision is not as clear cut. Given the very infrequent nature of outages (once every 45 years) a compromise in reliability may not have a noticeable impact. For example, if an outage occurred every 20 years or so this would still be regarded as extremely rare. On this basis a trade off may be considered.





# Customers expect AusNet Services' charges to factor in ongoing maintenance of the system.

## Customer responses to scenarios where costs may increase to improve/maintain reliability:

- While there is low interest in reducing gas bills, the concept that bills may increase to cover the costs of maintenance to the distribution network is contentious.
- There is an expectation that AusNet Services have been/should have been factoring the ongoing costs of maintaining and/or improving the network into their component of the gas bill. This forward planning would negate the need for increased charges.
- In addition, both safety and reliability are currently perceived to be at high levels so there is no evident need to improve them.

“ They should have planned for that (maintaining network) way back... Why didn't they start doing that already?

“ Wouldn't it be covered in growth charges (on bill pie chart)? Investing in themselves?





# Single point of failure scenario:

What about scenarios where a single point of failure could result in significant number of customers losing supply are evaluated based on cost and risk with additional mains, regulators, surveillance equipment specified where appropriate. Do we feel that the current balance between cost vs. reliability of supply is right?

## Customer response to this scenario:

- Views are mixed on this scenario and there is no clear consensus.
- Some see the benefit of investing more highly where more people would be affected. The rationale here is based on minimising inconvenience to the maximum number of people.
- Others adopt a more equity-related position, believing that all customers should receive the same level of investment across the network and therefore equal levels of reliability.





# Deteriorating assets scenario:

If the number of assets in poor condition is increasing should replacement rates rise accordingly (increasing costs) or should cost be kept stable leading to lower reliability as more assets fail?

## Customer response to this scenario:

- There is an expectation that a program of maintenance has been and will be in place to ensure that the network remains in good condition. AusNet Services is assumed to have planned in advance, and charged accordingly, to cover the costs of maintaining the system. Hence the idea that costs will increase to cover maintenance is not readily accepted.
- If asked to make a decision based on the scenario, reliability is preferred over cost reductions.
- In principle, customers are not prepared to compromise on reliability to keep costs down, particularly if this means that a hot shower is not available on demand.
- Reliability and safety are also believed to be strongly linked; if reliability is compromised then safety may also be compromised and this is not acceptable.
- The cost of gas is regarded as reasonable and not a major concern. Therefore reducing costs is not a high priority.







## Lower than average reliability scenario:

What about customers with lower than average reliability, would we be willing to pay more to ensure they receive the same levels of reliability?

### Customer response to this scenario:

- In principle, the over-riding belief is that all customers in the network should have the same level of reliability.
- However, there is an expectation that AusNet Services has planned ahead to maintain all areas of the network to a consistent standard and provided for this within the charging structure. Therefore it is difficult for customers to understand why further investment would be needed to achieve uniform reliability.
- From another perspective, as outages are so rare, some compromise to reliability may, in reality, not be an issue. Even with less reliability those customers in lower than average areas may still only experience outages very occasionally.
- A further consideration is the perceived link between safety and reliability. If there is a possibility that safety is compromised for those customers in areas with lower reliability then further investment is warranted.





Future demand  
for gas & pricing  
scenarios.

# Future demand and pricing:

## Overarching messages

- ➔ *Gas is a valued energy source which customers envisage using into the future. However, gas consumption is expected to decrease over time as new technologies are further developed and adopted.*
- ➔ *It was difficult for customers to conceptualise and understand hypothetical trade-offs involving current and future consumption scenarios. Those who were able to form an opinion tended to favour the position that the costs of gas infrastructure should be spread evenly over the lifetime of the asset, regardless of the level of usage at a particular point in time. This therefore suggests that the notion of accelerated depreciation was not well supported among participants.*



Gas is a valued source of energy and there are currently no major barriers to future use.

**Expectations around future use of gas:**

- ➔ Gas is highly regarded as a fuel source with many valued benefits including immediacy, reliability and reasonable pricing.
- ➔ From this perspective there are no apparent negatives which would cause customers to use less gas in future. Customers are not actively seeking an alternative source to address a current problem.
- ➔ Most expect to be using gas in future and to install gas appliances if building a new house.
- ➔ Gas cooking, in particular, is likely to remain a preference, particularly if the benefits of immediacy and responsiveness are not replicated by new technologies.







However, gas consumption is expected to gradually decrease as alternative energy sources are developed.

**Expectations around adoption of alternative energy sources:**

- ➔ Alternative energy sources are predicted to play more of a role in future and this will naturally lead to less gas consumption. For example, as more efficient storage technology is developed for solar energy take-up is expected to increase.
- ➔ While there is a general belief that gas usage will decrease in future, the timeframe for this change is unclear given uncertainty around when alternative technologies will become financially viable.
- ➔ There is evidence that this shift is already taking place. For example, one research participant had recently built a new house and had opted for solar hot water with a gas booster.
- ➔ One incentive to move away from gas towards solar would be a perception of greater sustainability. There is some expectation that gas supplies will run out in future.
- ➔ Environmental impact may also be a factor if brought to the attention of customers. Currently is no clear view on whether gas is a clean or environmentally friendly fuel and interest in this issue appears limited.
- ➔ Price may also become more of a consideration if alternative energy sources are more cost-effective or if the price of gas rises as supply dwindles.





# In principle, gas infrastructure cost should be distributed evenly across the lifetime of assets & between generations.

## Response to questions around future costs and intergenerational impact:

- ➔ Customers find questions relating to future costs difficult to answer. From an individual's perspective the future is an unknown in terms of their own personal circumstances, those of their children and the nature of the energy market.
- ➔ In general, costs are expected to be spread evenly over the lifetime of an asset and across different generations. For example, if a gas pipe lasts for 40 years the cost should be spread over that time frame.
- ➔ The options of paying more now and less in future, or of today's customers paying more so that those in future can pay less are difficult for customers to form a view on. Those who were able to give an opinion were generally resistant to this approach due to both uncertainty about the future and a broader preference for even distribution of costs.
- ➔ Factoring in potential decreases in gas usage by future generations is difficult for some to conceptualise. Future usage, either their own or their children's is hard to predict. Those who did form a view tended to favour spreading the cost evenly over time. One argument for this is that the network needs to be provided and maintained regardless of how much gas is travelling through the pipes.





Investment priorities  
from the customer  
perspective.



## From the customer perspective, safety-related services should have priority.

### Prioritisation of AusNet Services' activities:

- Participants were asked to rate the importance of a range of current activities carried out by AusNet Services.
- Responses were fairly uniform across demographic and geographic customer groups.

Activity	Priority	Reasoning
Repair gas leaks reported by the public	High	Possibility of safety incident if not addressed.
Identify and repair gas leaks before they are large enough to be reported by the public	High	Possibility of safety incident if not addressed.
Provide a free Dial Before You Dig service to prevent underground assets being damaged	High	A fairly well known service. Valued to maintain safety.
Replace aging gas mains to reduce gas leaks	High	Possibility of safety issue if not addressed.
Undertake daily patrol of high risk/critical assets to ensure they are not damaged.	High	High priority to maintain safety if the critical nature of the assets is emphasised.
Efficiently connect new customers to the gas network to lower end bill to users	Medium	Expected to be routinely taking place. However, if efficiency can be improved to keep costs down this is a positive.
Connect new customers to the network	Medium	An important part of AusNet Services' role but not a safety issue.
Replace gas meters to ensure they remain accurate	Mixed	Overall, accuracy is important. However inaccuracy is not perceived to be a major issue. Correcting inaccuracy could work for or against the customer.
Extend the network to regional towns who do not have access to mains natural gas	Medium-Low	Self-interest plays a role here. As respondents were all current customers they are not personally in need of an extended network.
Provide greater transparency to gas metering data	Low	No perceived lack of transparency and little interest in more information on gas usage.
Relocate gas meters at a property to a safer location	Low	No prior awareness that some gas meters are in unsafe locations. Difficult to gauge risk.
Read your gas meter bi-monthly (every 2 months) or every three months	Low	Current frequency is acceptable. If meters were read less frequently this would not be an issue for most customers.
Increase network reliability and capacity by upgrading low pressure areas to high pressure	Low	Customers are not familiar with the concept of high and low pressure and its implications for reliability and capacity. No issues with current reliability or capacity.

