AusNet Gas Services Pty Ltd

Gas Access Arrangement Review 2018–2022

Appendix 5A: Energy Research Summary Report

Submitted: 16 December 2016

AusNet Services.

Energy Research.
Summary Report.

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Report Released: 15 July 2016

Contents

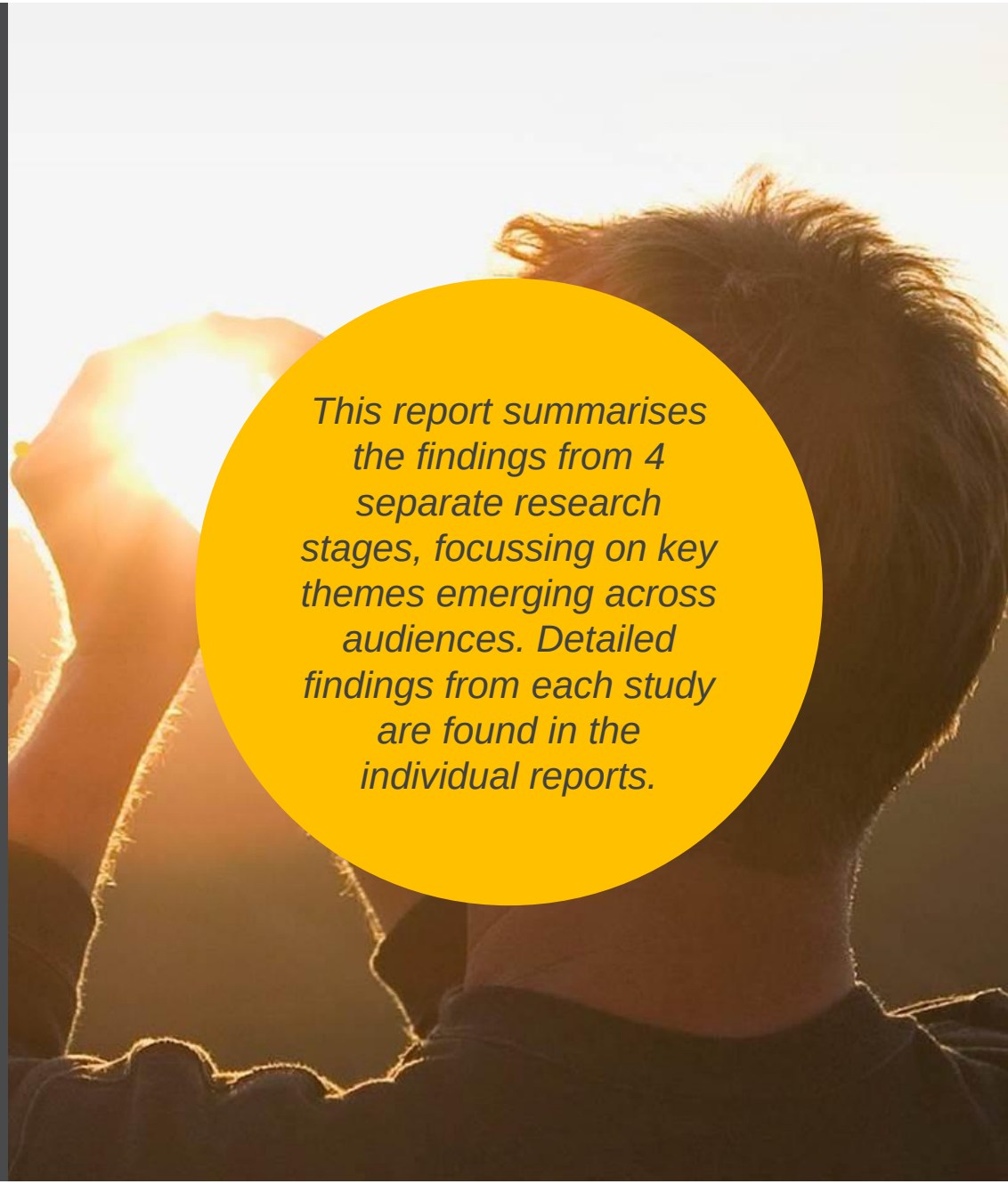
Background and methodology.

Background and context

Limited research exists on the preferences and views of Victorian gas customers. To address this, a series of studies were undertaken to facilitate engagement with customers and stakeholders of the AusNet Services gas network. The purpose of this program of research was to:

- Provide greater understanding of the attitudes and perceptions of customers towards the gas network services.
- Investigate customer preferences in relation to service delivery and communications.
- Understand customer and other stakeholder views on the trade-offs 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 Gas Access Arrangement Review (GAAR) proposal. In the long term, it is anticipated that the findings will inform network planning and the future vision of the gas network.



Project flow

This research program involved a four staged approach.

Study 1.
Focus Groups

- *Objective: Explore and understand the areas of key concern for customers.*
- 5 x Focus Groups with existing and potential AusNet Services gas customers currently living within the AusNet Services gas network.

Study 2.
Online Survey

- *Objective: Empirically test and verify the findings from Study 1 qualitative groups with gas customers.*
- n=620 x 15 minute completed online surveys with a representative sample of AusNet Services' gas customers.

Study 3.
Customer Advocate Workshop

- *Objective: Verifying the findings from studies 1 & 2, with a key focus on understanding advocate perceptions of complex trade-offs involved in network decisions.*
- 1 x Workshop with Customer Advocates (facilitated by AusNet Services).

Study 4.
Focus Groups & Stakeholder In-Depth Interviews

- *Objective: To engage with other stakeholders operating within the network to elicit their gas related needs, wants and perceptions.*
- 4 x Focus Groups with Small to Medium Sized Businesses (SM Business).
- 1 x In-Depth Interview with Big Business.
- 8 x In-Depth Interviews with Land Developers.
- 4 x In-Depth Interviews with Local Councils.

Research approach rationale

Focus Groups

Focus group discussions with Residential and SM Business Customers 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.

In-depth Interviews

Individual interviews were conducted with Big Business, Land Developers and Councils. This format allowed researchers to probe participants on unique key areas of interest, experience and concern relating to the gas network.

- It was expected that Big Business, Land Developers and Councils would have relatively greater knowledge of the industry and gas supply chain, and therefore be able to provide meaningful feedback with less explanation and guidance from the moderator.
- Given the extensive geographical area covered by AusNet Services and distances between potential participants, in-depth interviews were considered a more practical way to reach customers across the network.
- Through this approach we were able to obtain greater depth on key issues relevant to each respondent to generate rich insights across audiences.

Reading this report

In this report “Customers” is used to denote both Residential and Business Customers. “Stakeholders” is used to denote Local Councils, Land Developers and Customer Advocates.

The following symbols are used at the top of each page to indicate which study findings have been drawn from.

Residential Customers - Qual	Study 1: Residential Customer Focus Groups
Residential Customers - Quant	Study 2: Residential Customer Quantitative Survey
Customer Advocates	Study 3: Customer Advocate Workshop
Big Business & Stakeholders	Study 4: SM Business Focus Groups, and Big Business, Local Council and Land Developer Individual Depth Interviews

Where multiple audience views are presented together, the different Customer and Stakeholder groups are indicated with the following symbols:


Residential Customer


SM Business Customer


Big Business


Local Councils


Land Developers


Customer Advocates

Report summary and key themes.

Report summary and key themes

Background

- With limited available research on the views of gas customers in Victoria, four studies were undertaken to facilitate customer and stakeholder engagement for the gas network.
- This report provides a summary of the findings from each of these studies. Further detail is provided in the individual reports for each study.

Purpose of overall program of research

- 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, the findings will inform network planning and the future vision of the gas network.

Supporting research objectives

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

Methodology and objectives

Study 1: We conducted five (5) focus groups with AusNet Services Residential Customers to explore customer knowledge, attitudes, perceptions and preferences relating to gas network issues.

Study 2: We conducted 620 x 15 minute online surveys with a representative sample of AusNet Services' gas customers to empirically test and verify the findings from Study 1.

Study 3: AusNet Services facilitated a workshop with Customer Advocates from a range of industries and backgrounds to share and validate the research findings from Studies 1 and 2.

Study 4: We conducted four (4) focus groups with AusNet Services small to medium sized (SM) business customers, and 13 individual interviews with Land Developers, Local Councils and one Big Business customer, to explore their knowledge, attitudes, perceptions and preferences relating to gas network issues.

Report summary and key themes

Key topics

This report is structured around the key topics of discussion:

- Gas consumption: customer usage & management
- Gas supply chain: supply familiarity & provider awareness
- Customer attitudes & sentiment toward gas network
- AusNet Services performance: service delivery
- Network trade-offs
- Customer engagement & communication

This report also contains the sample structure and profile at the conclusion of the document.

Gas network consumption: customer usage & management

- 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.
- Amongst Business Customers, supply interruptions can impact on their financial success.
- Given the importance of gas to business and industry, Local Councils are conscious that lack of access to gas mains has the potential to limit social and economic community growth.
- Many Customers monitor their gas consumption. Tracking bill spend over time is the most common method for monitoring gas consumption, with 3 in 5 doing so.
- Residential Customers generally have a healthy appetite for new or alternative energy technology, with expected future usage highest for solar panels and home power storage.
- In new builds, some Land Developers report actively encouraging buyers to consider alternative energy sources as part of the energy mix, though gas may still be used for some functions (gas boosted hot water system).
- While there is a general belief that gas usage will decrease in the future, the timeframe for this change is unclear given uncertainty around when alternative technologies will become financially viable.
- 4% of Residential Customers expect to disconnect from the gas network in the next 5 years, and a further 6% in the next 10 years. 80% of Residential Customers have no plans to disconnect from the gas network in the future.
- Amongst Big Business, the costs associated with implementing alternative energy solutions is felt to be prohibitive. Consequently, little shift in demand for gas is anticipated in the foreseeable future.

Report summary and key themes

Gas supply chain: supply familiarity & provider awareness

- Due to the highly reliable and consistent nature of the gas supply there is little impetus for customers to consider the gas supply chain or to interact with AusNet Services.
- Familiarity with distribution companies is low with 1 in 5 feeling they know at least a moderate amount about these organisations.
- These findings are consistent with the findings of the qualitative focus groups. The majority of Residential and SM Business Customers had little to no knowledge of AusNet Services and its role in gas supply.
- Customers also have limited understanding of the proportion of their bill allocated to the companies involved in the supply of gas.
- By contrast, Big Business, Councils and Land Developers tend to have a more sophisticated understanding of the supply chain and are likely to have direct dealings with AusNet Services.
- Councils and Land Developers have a good understanding of the role and responsibilities of both gas retailers and distributors, and are familiar with AusNet Services specifically.

Customer & stakeholder attitudes & sentiment toward gas network

- Sentiment towards gas and the gas network is generally positive, with the network viewed by Customers and Stakeholders as safe and reliable.
- Most of the Customers and Stakeholders perceive that AusNet Services is managing the network well.
- Approximately half of Residential Customers feel gas is good value for money (49%) and reasonably priced (44%).
- For SM and Big Business, perception of prices are mixed, with many concerned with the price of gas.
- Significant concern exists within the community around all gas safety issues, which is likely to reflect the perceived danger a gas leak could pose to the public rather than any concerns of an imminent threat.
- Customers view safety and reliability as the most important factors when it comes to gas supply
- In terms of investment priorities, those which are viewed as directly related to maintaining the safety and reliability of the network are expected to be prioritised.

Report summary and key themes

AusNet Services performance: service delivery

- Approximately 2 in 3 customers are satisfied with AusNet Services as their gas distributor (65%).
- Customers are likely to be satisfied with the reliability of gas supply to their home (76%) - approximately 3 in 5 (61%) customers have never experienced a gas related safety or reliability incident.
- Gas outages have been reported by only 2% of customers.
- The incident at the Longford plant was mentioned in each of the focus groups, but this is mainly remembered for the lack of hot water rather than as a safety problem.
- Just over half (52%) are satisfied with the level of information provided about their gas consumption on the bill and just over 2 in 5 (44%) are satisfied with the service/ responsiveness levels when they experience an outage.
- Approximately 1 in 3 are satisfied with the level of contact they have with AusNet Services (35%).
- Business Customers and Stakeholders have a high degree of satisfaction around the safety of the gas network

Network trade-offs

- Network trade-off statements that most resonate with Residential Customers centre on not compromising on reliability and safety to achieve cost reductions.
- Residential Customers would be willing to compromise slightly on reliability to lower their gas bill, however delivering cheaper gas bills at the expensive of both network reliability and safety was strongly opposed by almost 2 in 3 Residential Customers.

Customer engagement & communication

- From a customer perspective the main reasons for contacting AusNet Services centred around service reliability and safety.
- Over 1 in 3 (37%) customers would like to receive more information from AusNet Services regarding gas related issues.
- The strongest areas of interest are around ways to manage consumption and minimise gas bills.
- By contrast, Big Business, Councils and Land Developers generally see that a mutual relationship exists between their activities and the activities and services provided by AusNet Services and therefore expect a greater level of communication.

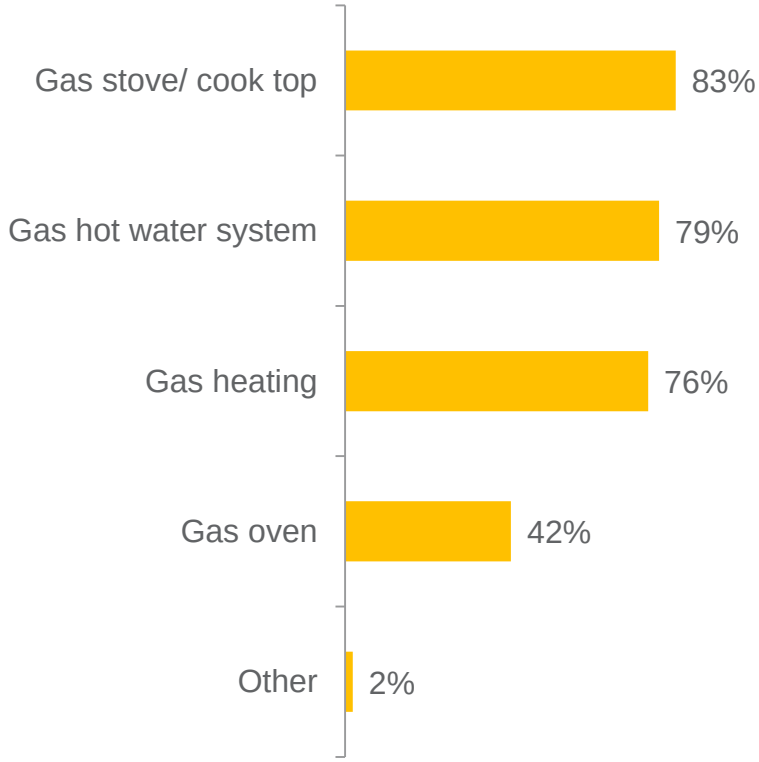
Detailed findings.

Gas consumption: customer usage & management.

Gas is a highly used and valued energy source that provides instantaneous and readily controllable heat. The responsive and immediate nature of gas is a key benefit for heating and cooking.

- Approximately 4 in 5 customers use a gas-powered stove/cook top, hot water system or heating system, with gas ovens being used by approximately 2 in 5 customers. For residents, hot water for showering is the feature most likely to be missed if supply is interrupted.
- For some Businesses (e.g. restaurants and manufacturing), gas is critical for day-to-day operations and therefore seen as an essential service.
- From a Council perspective, given the importance of gas to business and industry, lack of access to a gas mains connection can be seen as a factor that limits the potential social and economic growth of those communities.

Current gas usage



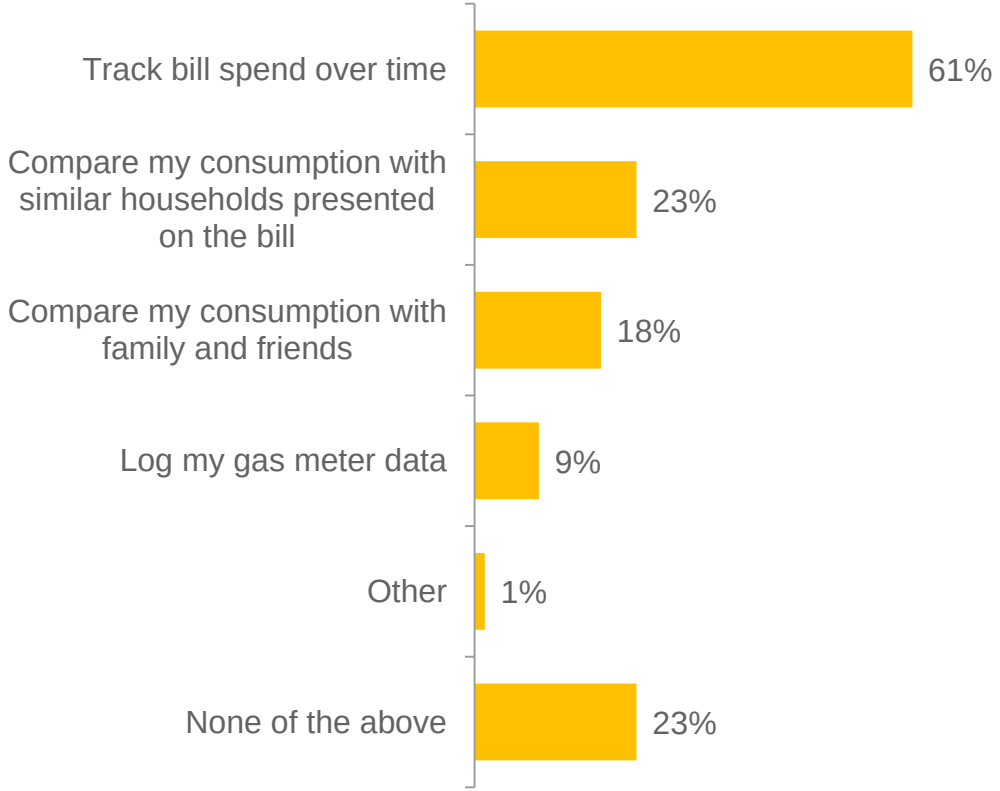
Q5. Which of the following does your household have? (MR)
Q6. In your own words what are your main reasons for not using gas? (OE)
Base: Total respondents n=620

Most Residential Customers try to actively monitor their gas consumption.

- 3 in 4 Residential Customers actively monitor their gas consumption.
- Tracking bill spend over time is the most common method used, with 3 in 5 doing so.
- Almost 1 in 4 compare their consumption with similar households (presented on the bill) and 1 in 5 compare their consumption with family and friends.
- Almost 1 in 4 (23%) customers do not actively monitor their consumption.

- Like Residential Customers, some SM Business Customers monitor consumption while others do not.
- In general, SM Business Customers rely on the graphs provided on their bills to compare current usage with previous bills and at similar times from the previous year.

Monitoring gas consumption

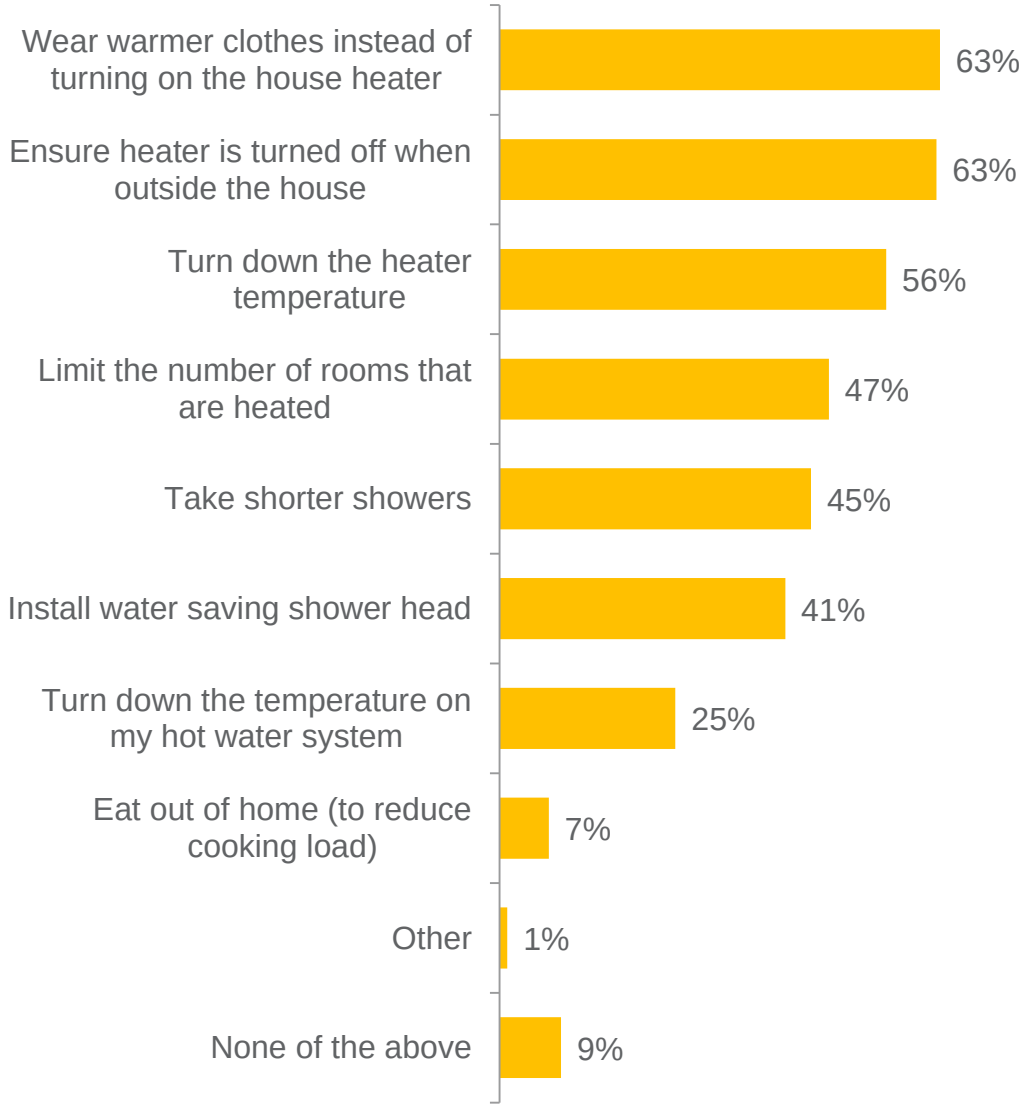


Q14. How do you currently monitor your gas consumption? Please select all that apply. If you don't do any of the below, please select 'None of the above'. (MR)
Base: Total respondents n=620

The majority of Residential Customers take measures to manage and/or reduce gas consumption.

- Heating is the major area where measures may be taken to reduce consumption. Almost 2 in 3 (63%) Residential Customers wear warmer clothes rather than run their heater in the house. The same proportion of customers turn off their heater while out of the house.
- Just under 1 in 10 (9%) Residential Customers do not currently undertake any activity to better manage/ reduce gas consumption.
- Qualitative findings suggest that 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.

Managing gas consumption



Q15. Please select the types of activities you do to manage your gas consumption. Please select all that apply. (MR)
Base: Total respondents n=620

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Managing consumption

Like Residential Customers, some **SM Business Customers** actively try to reduce their gas consumption. Turning hot water off or down when the business is quiet is the most common method of managing consumption. For these customers, this behaviour is primarily driven by concern about costs, rather than specific concerns about the environment or other impacts of consumption. Businesses who rely on gas for day-to-day running are also more likely to use comparison websites such as iSelect to ensure they are receiving the best value for money from their provider.

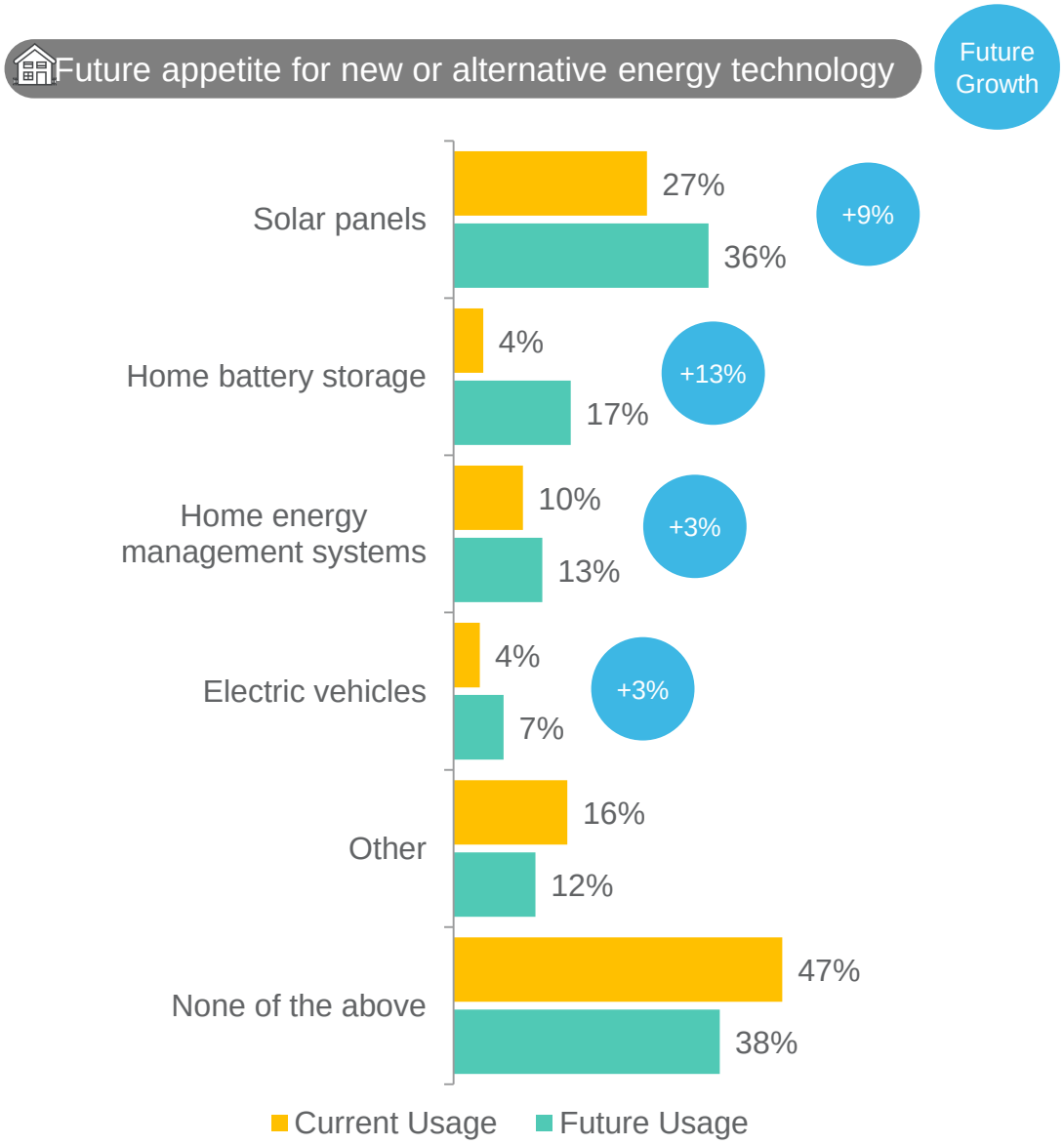
Councils believe that for their constituents, gas is seen as more affordable and clean than electricity. As such, efforts to reduce energy consumption tend to be concentrated on electrical appliances rather than gas.

Our **Big Business** representative indicated that reducing gas consumption in order to improve cost efficiencies is an area of interest. Nonetheless, given that consumption is linked closely with production it was expected that regardless of the efficiencies put in place, their overall requirements would increase in the coming years.

Land Developers reported that buyers prefer to install appliances that help to reduce consumption (e.g. instant hot water systems), largely associated with a desire to keep long-term usage costs to a minimum.

Residential Customers generally have a healthy appetite for new or alternative energy technology.

- Residential Customers have a particularly strong appetite for solar panels and home power storage, with strong growth figures of +9% and +13%, respectively.
- Qualitative findings suggest that one reason customers may shift from gas to solar is the perception of greater sustainability – there is some expectation that gas supplies will run out in future.
- Residential customers did not have a clear view regarding whether or not gas is environmentally friendly or not. Environmental considerations were therefore less likely to arise amongst these Customers and interest in this issue appears limited.
- The cost of using gas may also become more of a consideration if alternative energy sources are found to be more cost-effective, or if the price of gas rises as supply falls.

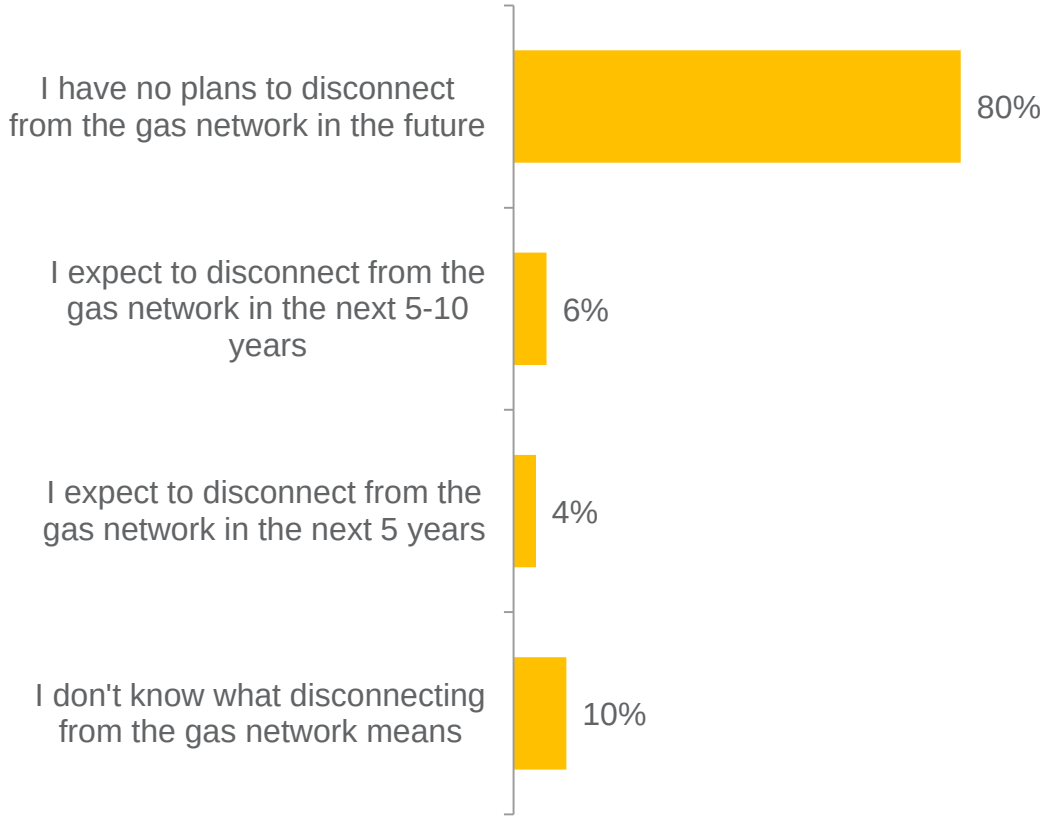


Q28. Which, if any of the below does your household currently have or use? Please select all that apply. (MR)
Q29. Which, if any of the below does your household plan to have or use in the next five years? Please select all that apply. (MR)
Base: Total respondents n=620

Only 1 in 10 Residential customers indicated their intention to disconnect from the gas network in the next 5 to 10 years.

- 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.
- While gas remains a relatively cheap option, it is likely to continue to be preferred.
- Changes in the relative costs of gas could cause customer preferences to shift.
- 4 in 5 (80%) customers have no plans to disconnect from the gas network in the future, with only 10% of customers expecting to disconnect in the next 5 to 10 years.
- Gas cooking, in particular, is likely to remain a preference, particularly if the benefits of immediacy and responsiveness are not replicated by new technologies.

Expected gas disconnection timeframe



Q30. Which of the below best describes you? (SR)
Base: Total respondents n=620

Future demand for gas

The opinions of **Land Developers** largely echo residential findings. Some believe that customers will take time to fully understand the benefits of renewable technology, while others actively encourage buyers to consider renewable technologies as at least part of the energy mix for new homes.

Councils predict limited change in demand for new gas connections in the near future. Given the perception of gas as a clean, economical and efficient energy source, along with expected population increase, some Councils predict increased usage in the community over time.

In a commercial context, gas can be seen as an essential service if it is relied to carry out the business' primary function.

In general, **SM Business** Customers expect to be using gas in the foreseeable future. Gas for cooking is particularly important to cafes and restaurants. Some SM Business owners indicated an interest in solar power in order to reduce longer term costs. However, the capital investment required currently remains a barrier.

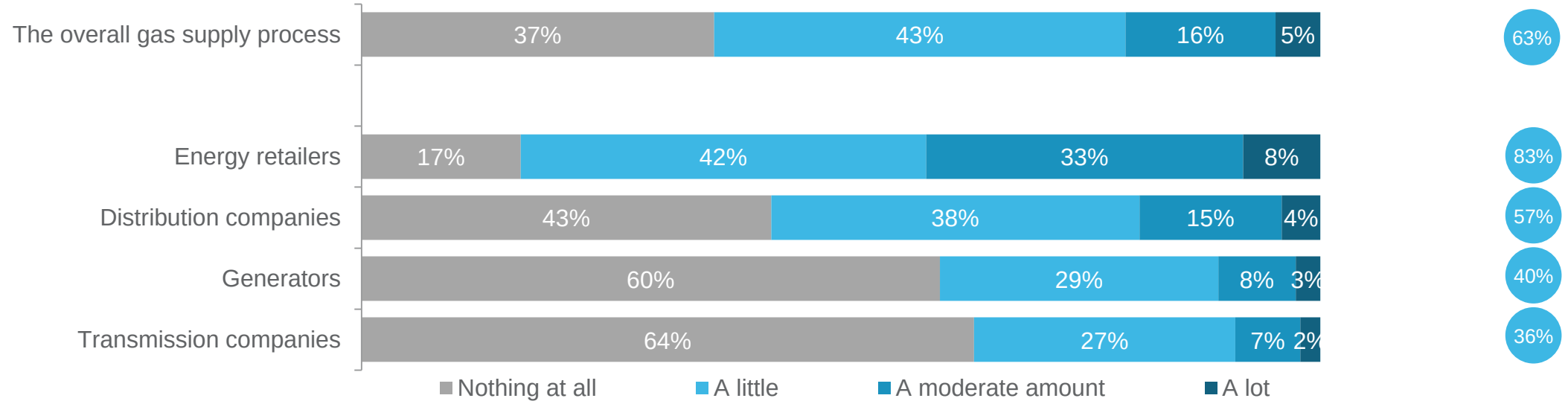
Our **Big Business** representative indicated that for some functions, the cost of implementing alternative energy solutions is prohibitive. Although they have plans to improve energy efficiency of their processes, projected increases in production are expected to offset reductions in consumption resulting in a net increase in demand over time.

Gas supply chain: supply familiarity & provider awareness.

How gas gets to peoples' homes and businesses, and the organisations involved in the process, is rarely considered.

- Most Residential and SM Business Customers have given little thought to the process by which gas is supplied to their homes with only 1 in 5 customers feeling they know a moderate amount about the companies involved in the process.
- 43% of customers feel they know nothing at all about distribution companies.
- Residential and SM Business Customers are most familiar with gas retailers and are able to identify several by name.
- The process by which gas is transmitted and distributed is unlikely to come to their attention unless there are major issues with supply.
- In the absence of knowledge about the rest of the supply chain, retailers are often assumed responsible for the reading and maintenance of meters and/or for the distribution network.

Familiarity with organisations involved in the provision of gas



Q7. How much do you know about each of the below types of organisations that are involved in the provision of gas to your home? (SR)
**Total Familiarity is the sum of those that know 'A little', 'A moderate amount' and 'A lot'.*
Base: Total respondents n=620

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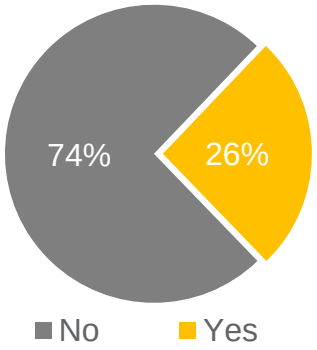
Supply familiarity & provider awareness

Residential Customers - Qual | Residential Customers - Quant | Business & Stakeholders

When prompted with AusNet Services' and SP AusNet logos, a minority of Residential and SM Business Customers indicated familiarity with AusNet Services' brand and role.

Quantitative findings show that when prompted, only 1 in 4 (26%) AusNet Services Residential Customers are aware of AusNet Services.

Prompted Awareness - AusNet Services



Consistent with limited familiarity with the total supply chain, Customers typically have limited understanding of the proportion of their bill allocated to the various companies involved in the supply of gas to their home or business.

By contrast, **Big Business**, **Councils** and **Land Developers** are likely to have had direct dealings with AusNet Services. Typically these Customers and Stakeholders have a good understanding of the role and responsibilities of the retailers and of AusNet Services.

For **Councils** and **Land Developers**, familiarity with others in the supply chain is more limited. Nonetheless, they typically demonstrate an appreciation that the companies they deal with are separate from the companies that are involved in the extraction/processing of gas.

Our **Big Business** representative demonstrated the most detailed familiarity with the gas supply chain and had a clear understanding of the roles of the companies they need to deal with on a day-to-day basis (e.g. retailers and distributors). They also demonstrate awareness of how their bill is allocated amongst the key players in the supply chain.

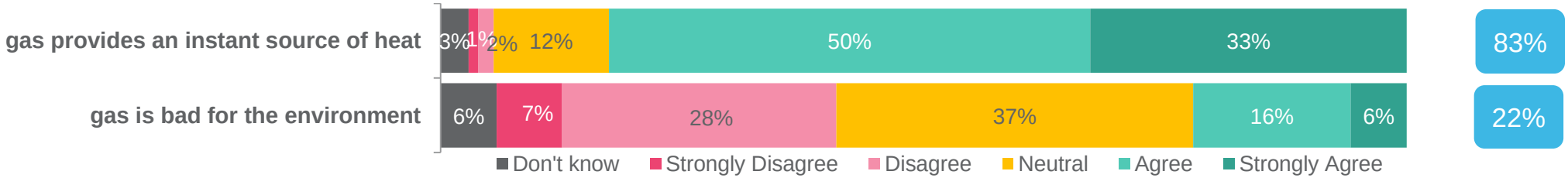
Q8. Before today were you aware of AusNet Services? (SR)
Q9. There are several different types of organisations involved in the supply of gas. Where do you think AusNet Services fits into the supply of gas? (MR)
Base: Total respondents n=620

Customer & stakeholder attitudes & sentiment toward the gas network.

Overall, Customer and Stakeholder sentiment towards gas and the gas network is generally positive.

- Gas is highly valued by customers as an energy source that provides an instantaneous and readily controllable heat.
- Customer views regarding the environmental impact of gas are somewhat mixed. Approximately 1 in 4 customers believe that gas is bad for the environment while more than 1 in 3 disagree.
- Qualitative findings suggest that for many Residential and SM Business Customers, images of emissions from electricity generation plants are more salient than gas processing plants. Gas is viewed as a 'cleaner' option by comparison.
- This sentiment is mirrored by Stakeholders who report that compared to electricity, gas is perceived by their customers and constituents as a cleaner and more efficient energy source.
- For Big Business Customers, gas is seen as a clean, low emissions energy source. The environmental impact of gas extraction and processing is not considered in their appraisal of the environmental impact of gas as a fuel.

Residential Customer sentiment towards gas network - *I believe that…*



Q12. To what extent do you disagree or agree with each of the following statements about the gas network? (SR)
Base: Total respondents n=620

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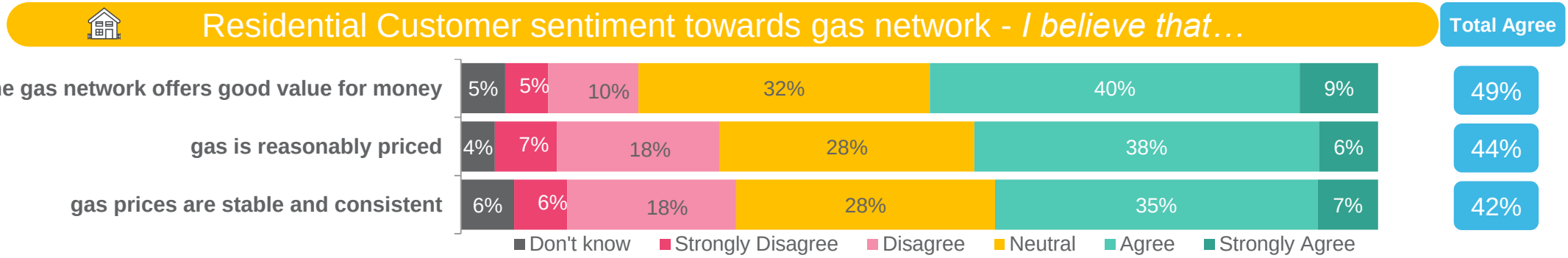
Sentiment regarding the price and affordability of gas is variable.

> *It's cheaper than electricity but I could just be using gas less.*

- Approximately half of the Residential Customers surveyed feel that gas is good value for money (49%), reasonably priced (44%), and that prices are relatively stable (42%).
- Qualitative findings suggest that gas is generally believed to be cheaper than electricity, and that judgements regarding the affordability of gas are based on experience of higher bills totals for electricity compared to gas.
- In line with these findings, from a Land Developers and Council perspective, Residential Customers' desire for gas is driven at least in part by the perception that gas is a more economical and affordable energy source than electricity. Nonetheless, Councils note that in areas of lower socioeconomic status, the cost of gas may still be a concern.
- By contrast, some SM and Big Business Customers who rely on gas for their day-to-day operations have negative views concerning the price of gas. Many businesses have noticed that the price of gas has increased over time and the impact on their bottom line is considerable. Big Business also perceive that the rate of return sought by utility companies is unreasonable and not reflective of the true operational costs.



Q12. To what extent do you disagree or agree with each of the following statements about the gas network? (SR)
Base: Total respondents n=620

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Land Developers' perceptions of current contribution levels are variable.

Land Developers do expect variation in connection costs due to differences in existing infrastructure, prospective usage, geographical layout or geological features of the site being developed.

However, given that they are unable to choose the contractors who undertake connections, they are conscious that there is no scope to negotiate costs.

When no mains extension is required:

- Some Land Developers consider the connection fees charged to be fair and reasonable.
- For others, given that a new connections is generating additional income for companies involved in gas supply, charging a connection cost is seen as an unreasonable profit generation exercise.
- There was no clear sense that Land Developers are familiar with how costs are shared between distributor/developer/customer.

When mains extension is required:

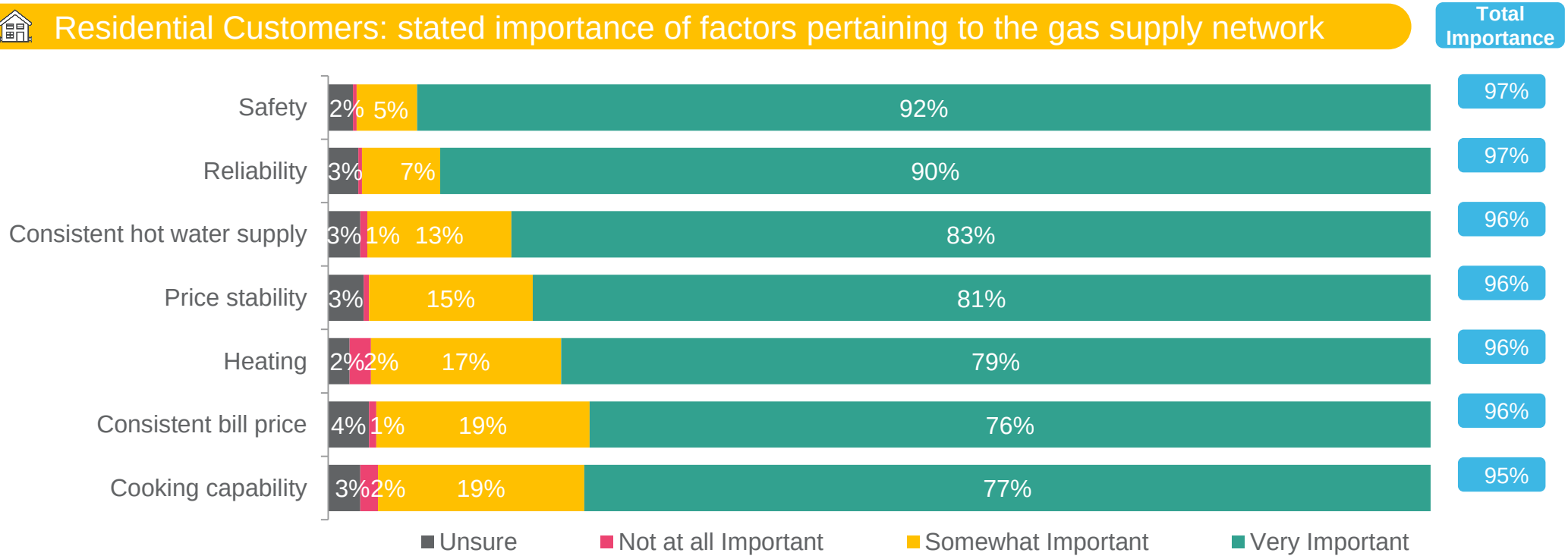
Perceptions of how reasonable or otherwise the contribution level is seemed to depend on the size of the development:

- Where no contribution is required due to the size of the development, this is seen as reasonable given that over time, AusNet Services will recoup costs from the new customers being connected.
- When the Land Developer is responsible for paying some or all of the cost, Land Developers perceive that the costs charged exceed the cost of materials and labour and that they should they be able to tender the work out independently. They also believe that they have little ability to influence these prices. In some cases, this is a barrier to connecting new developments and serves as a further incentive to consider alternative energy sources.

Customers view safety and reliability as the most important factors when it comes to gas supply.

- The concept of safety is also closely linked to reliability in Customers' minds and by default, issues that impact on safety are expected to impact reliability and vice versa.
- Price stability and consistent bill prices are viewed as highly important, yet findings suggest that customers have no appetite for decreased safety or reliability in return for cost reductions.
- Customer Advocates confirmed, on the basis of their experience with customers, that the safety and reliability of the gas network are indeed salient issues.

Residential Customers: stated importance of factors pertaining to the gas supply network

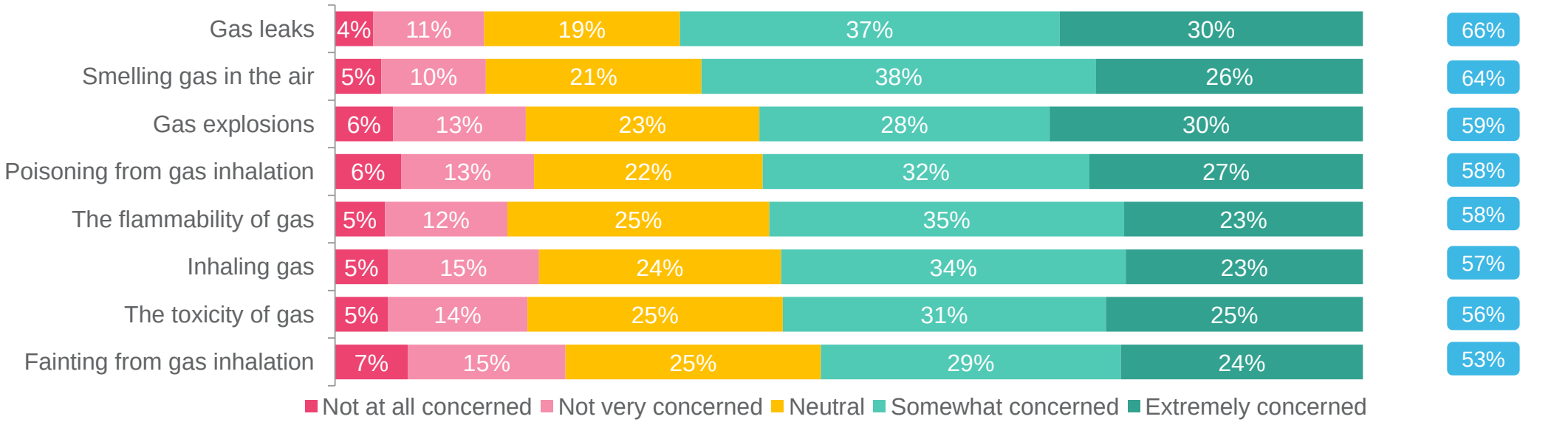


Q13. When it comes to the gas supply network, how important are each of the following? (SR)
Base: Total respondents n=620

Although safety incidents are rare, Customers and Stakeholders are aware that such an event could have serious consequences.

- Strong concern exists when it comes to all potential safety risks related to gas leaks. This is likely to be reflective of the perceived danger that a gas leak could pose to the public.
- For Business Customers, aside from damage caused to person or property, safety incidents that disrupt supply have the potential to lead to business closure and therefore, concern exists over potential longer-term economic impacts.
- In businesses classified as Major Hazard Facilities (where large quantities of hazardous materials are stored, handled or processed), stable, reliable gas supply can be necessary in order to minimise safety risks within the organisation.

Residential Customers: gas supply network safety concerns

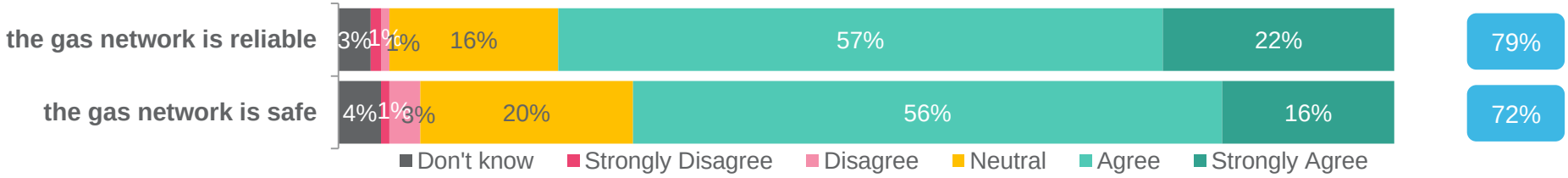


Q21. How concerned are you about the following gas-related issues? (SR)
Base: Total respondents n=620

At present, the majority of Customers and Stakeholders have no concerns regarding the safety or reliability of AusNet Services' gas network.

- Survey findings show that 79% of Residential Customers believe that the network is reliable, and 72% believe that the network is safe.
- From a Stakeholder perspective, there is a high degree of satisfaction around the safety of the network – to the point that when this issue was raised with Councils and Land Developers, neither group had any feedback to share other than to say that they are confident in the safety of the network.
- Similarly, no concerns were raised about the safety or reliability of the gas network by Big Business.
- Customer Advocates also agreed that when it comes to safety and reliability, customers feel confident.

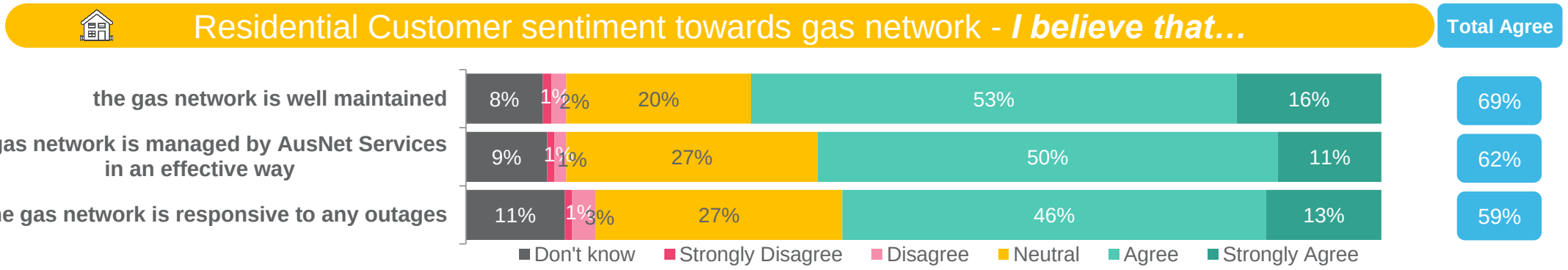
Residential Customer sentiment towards gas network - ***I believe that…***



Q12. To what extent do you disagree or agree with each of the following statements about the gas network? (SR)
Base: Total respondents n=620

Around 2 in 3 (62%) Residential Customers believe the gas network is being managed effectively by AusNet Services, with very few disagreeing with this (2%).

- Gas is perceived as one of the most reliable energy/ utility services and many Customers and Stakeholders cannot recall a time when they have experienced a gas outage.
- Planned works in Local Council areas are perceived to be carried out quickly and efficiently and with minimal disruption to residents.
- Similarly, Land Developers report that AusNet Services respond quickly and effectively to incidents involving gas mains being breached as a result of their work.



Q12. To what extent do you disagree or agree with each of the following statements about the gas network? (SR)
Base: Total respondents n=620

In the Residential and SM Business Customer focus group sessions, safety was a driving theme throughout. Therefore at a qualitative level, safety-related services were ranked as the highest priority for AusNet Services.

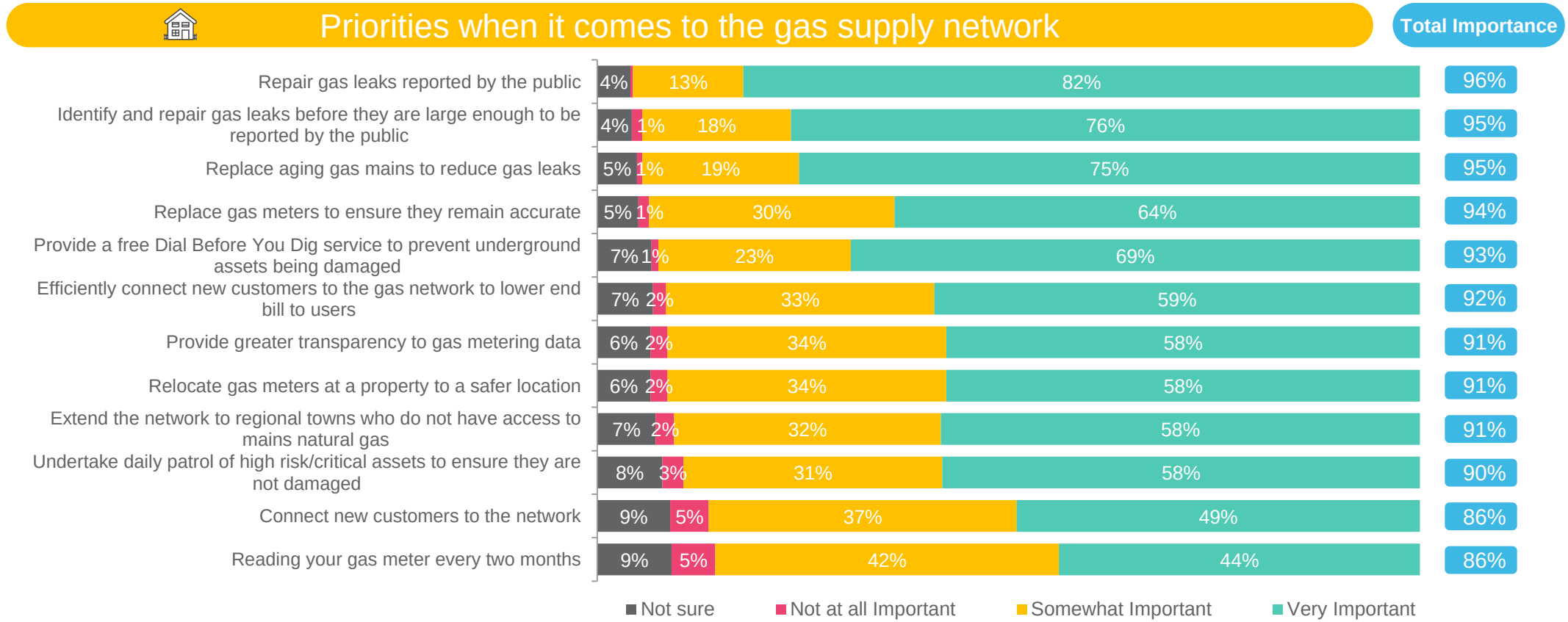
Activity	Priority	Reasoning
Repair gas leaks reported by the public	**Higher**	Possibility of safety incident if not addressed.
Identify and repair gas leaks before they are large enough to be reported by the public	**Higher**	Possibility of safety incident if not addressed.
Provide a free Dial Before You Dig service to prevent underground assets being damaged	**Higher**	A fairly well known service. Valued to maintain safety and prevent gas leaks / safety incidents.
Replace aging gas mains to reduce gas leaks	**Higher**	Possibility of safety issue if not addressed.
Undertake daily patrol of high risk/critical assets to ensure they are not damaged	**Higher**	High priority to maintain safety of the network and prevent gas leaks or safety incidents.
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	**Lower**	No perceived lack of transparency and little interest in more information on gas usage.
Relocate gas meters at a property to a safer location	**Lower**	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 3 months	**Lower**	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	**Lower**	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.

Focus group participants (Residential and SM Business only) were asked to rank the importance of a range of current activities carried out by AusNet Services. Responses were fairly uniform across SM Business groups.

When the importance of priorities is quantified the order changes slightly, yet safety remains the key theme when it comes to the high priority actions.

- 4 in 5 (82%) customers feel repairing gas leaks reported by the public should be the highest priority for AusNet Services.
- Identifying and repairing gas leaks before they are large enough to be reported by the public and replacing aging gas mains to reduce gas leaks are also high priorities.
- Reading gas meters every 2 months is seen as a lower priority, yet is still viewed as important.

Priorities when it comes to the gas supply network



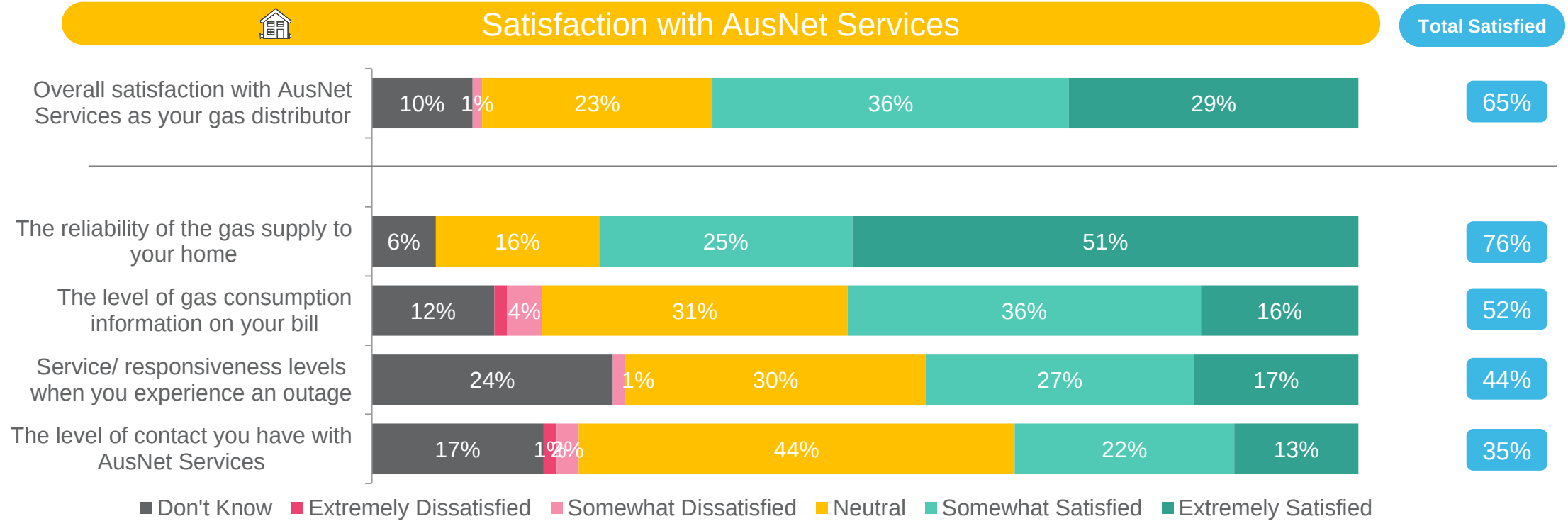
Q23. Looking at the list below how important are each of the following? (SR)
Base: Total respondents n=620

AusNet Services performance: service delivery.

Dissatisfaction with AusNet Services is very low, with most customers ranging from neutral to extremely satisfied.

- Approximately 2 in 3 customers are satisfied with AusNet Services as their gas distributor (65%).
- Residential Customers are most likely to be satisfied with the reliability of gas supply to their home (76%).
- Qualitative findings highlight the reliability of gas supply is a key component of the value of gas to users.
- Just over half (52%) are satisfied with the level of information provided about their gas consumption on the bill and just over 2 in 5 (44%) are satisfied with the service/ responsiveness levels when they experience an outage.
- Approximately 1 in 3 are satisfied with the level of contact they have with AusNet Services (35%).

Satisfaction with AusNet Services



Q24. Taking all things into account, how satisfied are you with the service provided by AusNet Services? (SR)
Base: Total respondents n=620

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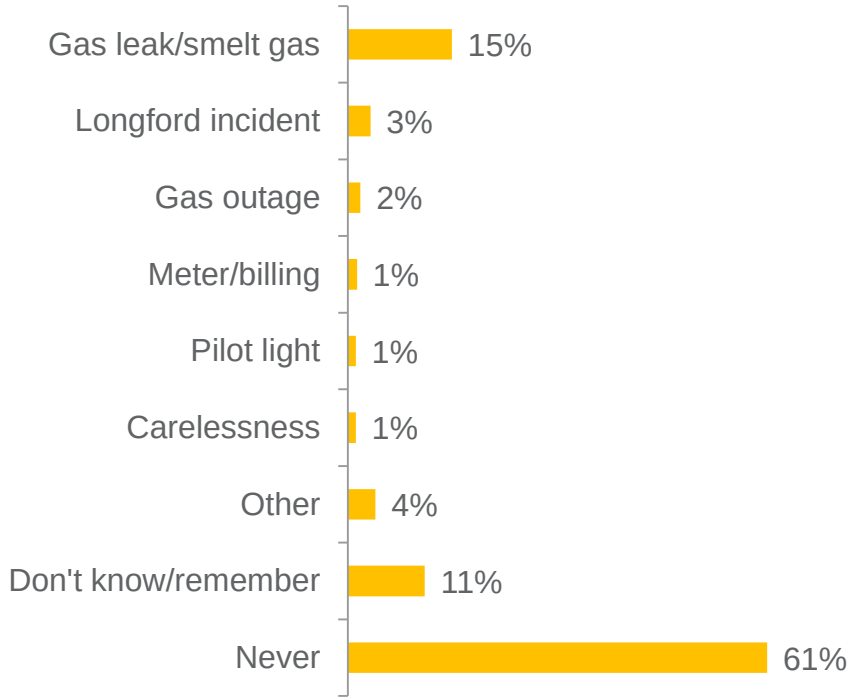
Approximately 3 in 5 (61%) customers have never experienced a gas related safety or reliability incident.

- Of those that have experienced a safety or reliability related issue, gas leaks/ smelling gas was the most common incident, with gas outages reported by only 2% of customers.
- 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.

Specific nature of last recalled gas incident



Q22. When was the last time that you experienced a gas related safety or reliability incident? What was the specific nature of this incident? (OE)
Base: Total respondents n=620

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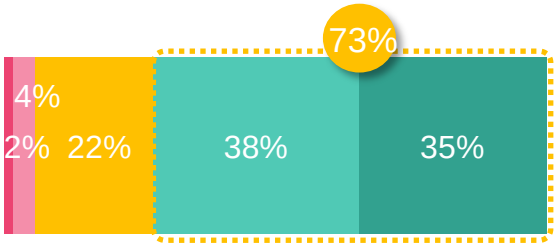
Network trade-offs.

When looking at the network trade-off statements, those that resonated most strongly with customers centred around making no compromises on reliability and safety to achieve cost reductions, and AusNet Services undertaking forward planning to factor in and absorb future costs.

Top 3 Network Trade-off Statements

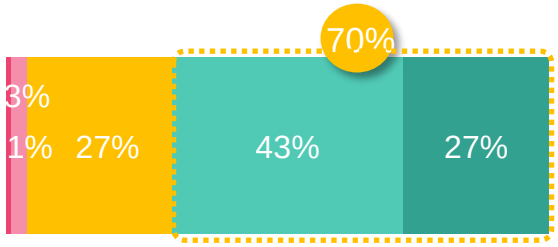
Statement 2

I would like to have cheaper gas bills, but I am not willing to achieve this at the expense of the reliability or safety of the gas network.



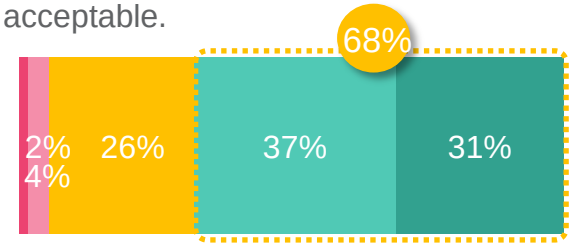
Statement 6

AusNet Services should factor in the future costs associated with maintaining the gas network to ensure that it is always reliable and safe. If AusNet Services undertakes accurate forward planning, there should be no need to increase charges to customers for maintenance purposes in the future.



Statement 1

When it comes to the gas network, reliability and safety are strongly linked (i.e. a leak is a safety risk and may result in an outage). As such, any attempts to reduce the price of gas by lowering the reliability of the network would also mean that the safety of the network is compromised, and this is not acceptable.



Strongly Disagree | Somewhat Disagree | Neither Agree nor Disagree | Somewhat Agree | Strongly Agree

Q25. With this in mind, please select the response that best fits with how you feel about each statement? (SR)
Base: Total respondents n=620

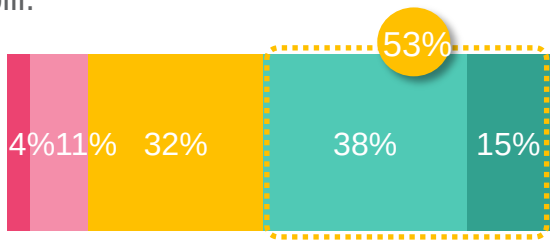
Customers would be willing to compromise slightly on reliability but not safety to lower their gas bill, however, delivering cheaper gas bills at the expensive of both network reliability *and* safety was strongly opposed by almost 2 in 3 customers.

Customers found moderate appeal in paying slightly more on their gas bill to ensure the network stays safe and reliable.

Bottom 3 Network Trade-off statements

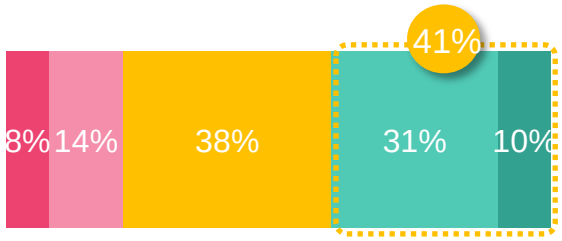
Statement 3

The gas network is highly reliable (i.e., one unplanned outage every 45 years). As such, I would be willing to compromise slightly on reliability (i.e., one unplanned outage every 20 years), but **not** on safety, to ultimately lower the price of my gas bill.



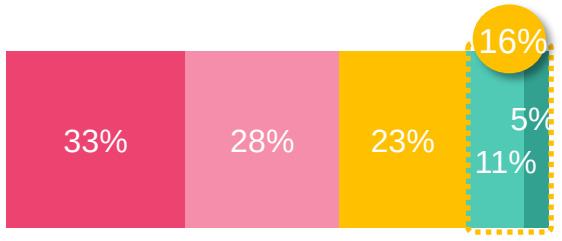
Statement 4

I would be willing to pay a little bit more on my gas bill to ensure that the gas network is always reliable and safe.



Statement 5

I would like to have cheaper gas bills even if this meant that the gas network was less safe and reliable (i.e., experienced more leaks and outages).



Strongly Disagree | Somewhat Disagree | Neither Agree nor Disagree | Somewhat Agree | Strongly Agree

Q25. With this in mind, please select the response that best fits with how you feel about each statement? (SR)
Base: Total respondents n=620

Single point of failure scenario

If there were areas of the network where a single point of failure could result in a significant number of customers losing supply should AusNet Services invest more heavily in those areas to ensure greater reliability? Or is the current balance between cost and reliability sufficient?

For **Councils, Residential and SM Business Customers**, views on this scenario were mixed:

Some see the benefit of investing more heavily 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.

Land Developers Land Developers tend to take a more pragmatic approach to investment priorities and favoured the approach of investing more highly where more people would be affected.

Big Business found this scenario difficult to engage with, instead believing that investments should be decided based on robust risk-based frameworks in line with world best practice.

From a more general perspective, the ubiquitous experience of a highly safe and reliable network suggests that the current balance between cost and reliability is appropriate.

The focus should be proportionate to the number of people it services." Land Developer.

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?

Consistent with the findings from the Residential Customer survey, 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 and raises questions about previous investment priorities that might have resulted in such a situation.

Big Business found this scenario difficult to engage with, instead believing that investments should be decided based on robust risk-based frameworks in line with world best practice, and the costs required to do so should be built in to their GAAR proposal.

Otherwise, views on this scenario were generally consistent across **all Customer and Stakeholder groups** and with the findings of the Residential Customer survey (Study 2).

If asked to make a decision based on the scenario, reliability is preferred over cost reductions.

In principle, Customers and Stakeholders 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.

It's like servicing a car. Do you wait until it breaks down?"
SM Business

Lower 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?

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 their GAAR proposal and charging structure. Therefore, it can be difficult to understand why further investment would be needed to achieve uniform reliability.

Big Business found this scenario difficult to engage with, instead believing that investments should be decided based on robust risk-based frameworks in line with world best practice.

Otherwise, views on this scenario were generally consistent across **Customer and Stakeholder groups** and with the findings of the Residential Customer survey (Study 2).

> *Need reliability across the network or clients lose faith in the product and will stop using it."* Land Developer

> *In some areas, high levels of demand means you can have high reliability."* Local Council.

When asked to comment on the scenario, some Customers and Stakeholders adopt a pragmatic approach and accept that some areas will have lower than average reliability as a function of variations in demand and location based factors. The caveat to this approach is that critical services (e.g. hospitals) are prioritised.

Some adopt a more equity based approach. This seemed to be particularly true for those who experience lower 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 pricing scenarios.

Future costs and integrational equity

Would you be willing to pay more today, for reduced bills in the future? What about intergeneration impact? That is, if customers in the future are using less gas, should they be paying the same amount that current customers are paying?

In principle, Customers and Stakeholders agreed that gas infrastructure cost should be distributed evenly across the life of the asset and between generations.

Residential and **SM Business** customers found this scenario difficult to answer. From their perspective, the future is an unknown in terms of their own personal circumstances, those of their children and the nature of the energy market.

Councils also found it difficult to conceptualise what future demand will look like and therefore make judgements on intergenerational equity.

Nonetheless, Councils tend to think that even if customers are using less gas, in order to provide this fuel the infrastructure must be in place and therefore the cost of gas assets should be spread out evenly across the life of the asset.

Not all **Land Developers** expect the demand for gas to be considerable lower in the near future, and population growth is expected to increase, they found it difficult to understand why customers would need to pay more now to offset the impact of reduced demand in the future.

Customer Advocates understood the general issues associated with increasing costs and its impact on network businesses. They were, however, sceptical of customer acceptance of any price increases and the use of the equity argument as a potential rationale.

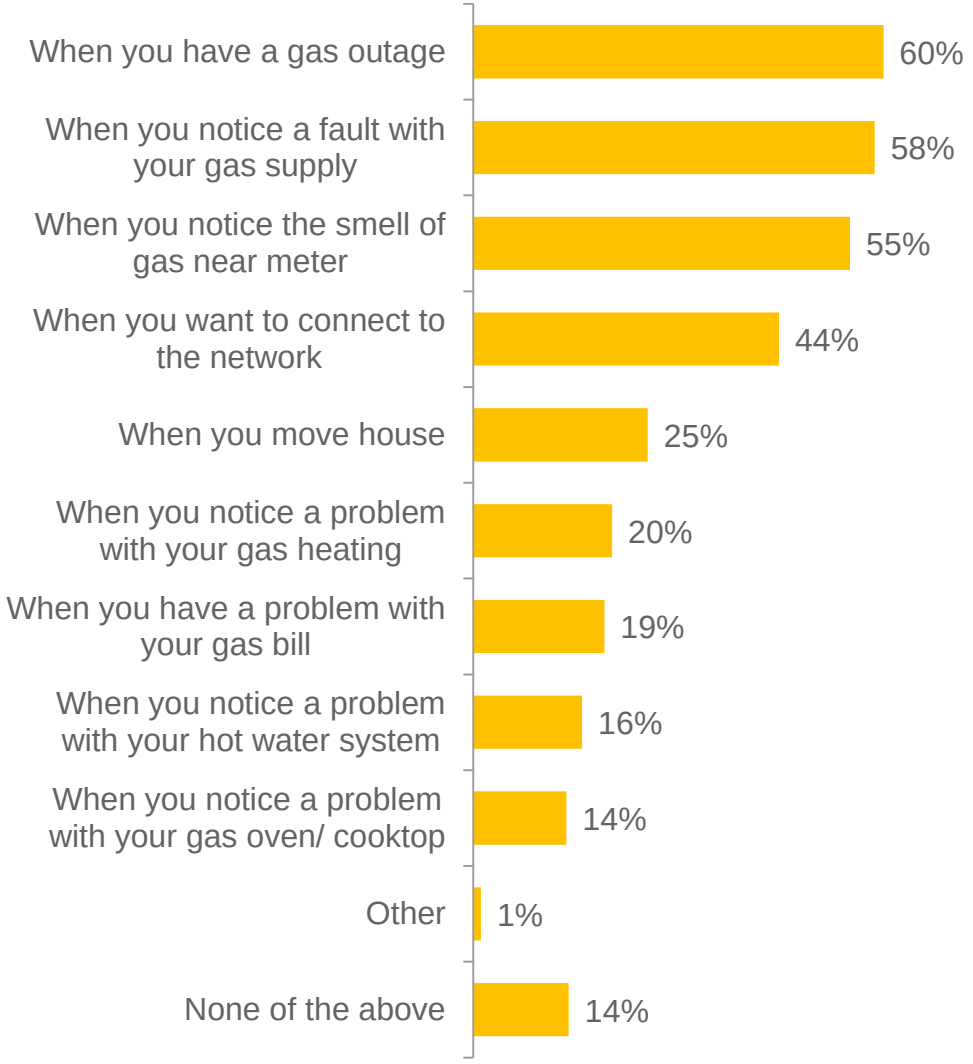
"The population might go up so there would be more in the pool to pay for things. You can't say they'll use less in the future." Resident.

Customer engagement & communication.

The main reasons for customers to contact AusNet Services typically relate to resolving issues.

- Aside from when issues or problems are experienced, AusNet Services very much operates in the background from the customer perspective.
- The main reasons for contacting a gas distributor such as AusNet Services centre around service reliability and safety, with over half of customers citing gas outages, fault in supply or noticing the smell of gas as reasons that would prompt them to contact their gas distributor.
- The need to connect to the gas network and moving house were also often mentioned as reasons to contact a gas distributor.

Reasons to contact a gas distributor

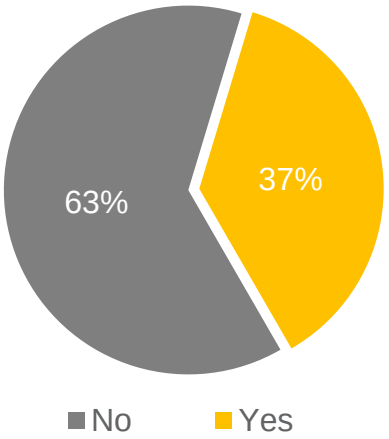


Q16. When do you think you would need to contact a gas distributor such as AusNet Services? Please select as many as apply. (MR)
Base: Total respondents n=620

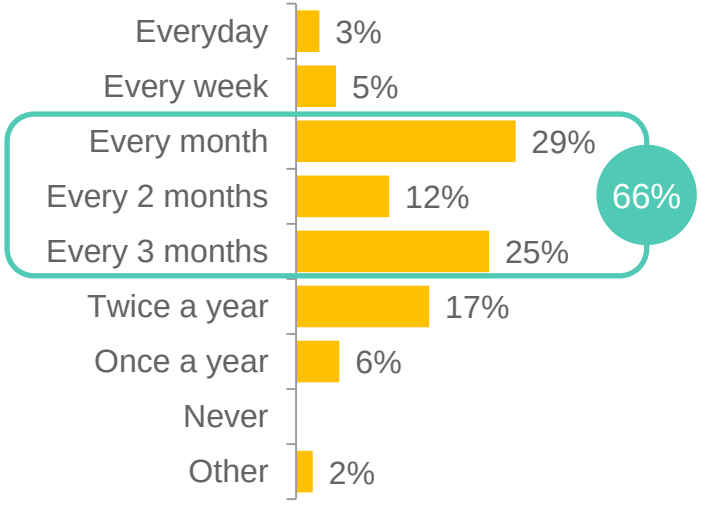
Over 1 in 3 (37%) Residential Customers would like to receive more information from AusNet Services regarding gas related issues, with the preferred frequency split between every month (29%) and every 3 months (25%).

Email is the preferred method of contact for most Residential Customers. Less than half of customers report a preference for visiting the AusNet Services website for such information.

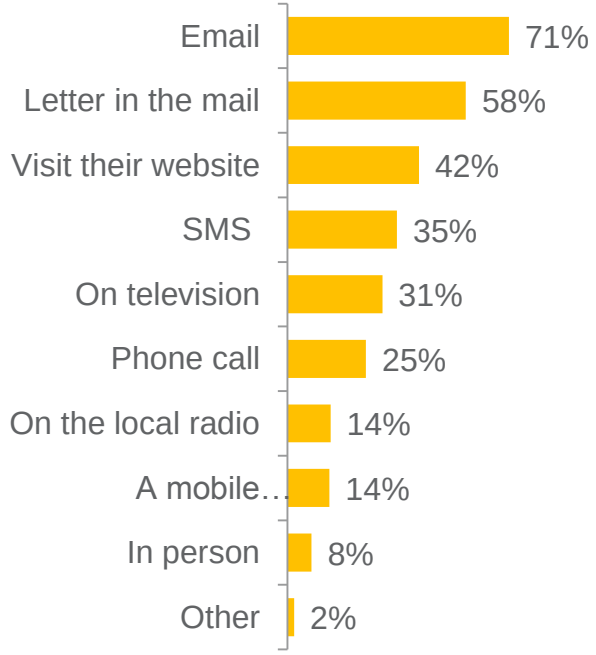
Willingness to receive information



Frequency of information



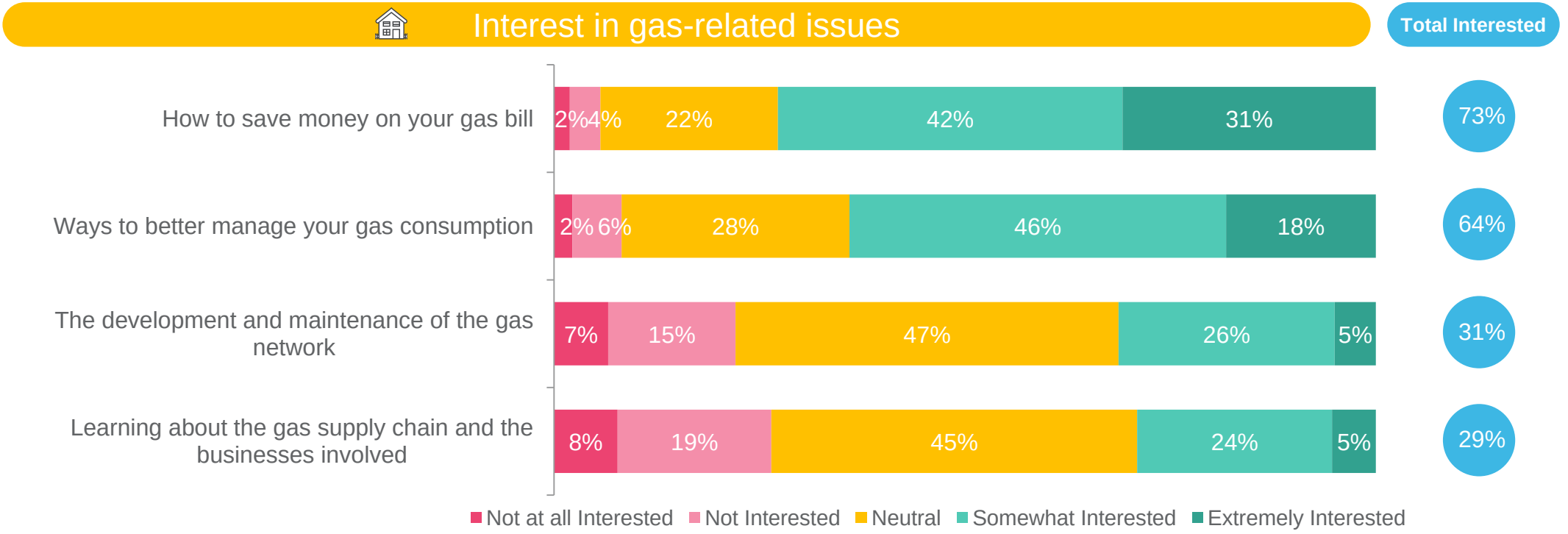
Preferred contact medium



Q19. Would you like to receive more information from AusNet Services about gas related issues? (SR)
Q20. How regularly would you like to receive information from AusNet Services about gas related issues? (SR)
Q18. How would you prefer to be contacted by AusNet Services about gas related issues (i.e., outages, works, new connections)? Top three (3) preferences. (MR)
Base: Total respondents n=620; Willing to receive information n=229

Customers are most interested in hearing from AusNet Services in regards to ways to manage consumption and minimise gas bills.

Conversely, issues relating to development and maintenance, and learning about the gas supply chain and the businesses involved are of little interest to most customers.



Q17. How interested are you in the following gas-related issues? (SR)
Base: Total respondents n=620

Appetite for and information needs from AusNet Services

SM Business Customers are generally satisfied with the type and frequency of communication from AusNet Services. Information provided on bills is seen as adequate for monitoring consumption as needed.

In general, **Land Developers** believe that the process for arranging a new service with AusNet Services is sufficient. They are typically comfortable with initiating contact as needed. Nonetheless, concerns were expressed regarding the timings of quotes, installation works and follow up processes by AusNet Services suggesting that greater follow up and communication from AusNet Services would be valued. Further information about what to do if there is an incident on site would also be valued by some Land Developers.

From the **Local Council** perspective, although operational communication is perceived to be good, high level strategic sharing of information is felt to be lacking. To assist with efficient day-to-day planning, there is some desire to receive more notice prior to the start of any works.

Big Businesses, especially in the manufacturing industry, desire a closer relationship with AusNet Services. Specifically, they are seeking a working relationship that needs to be established through ongoing direct contact.

Customer & stakeholder sample profile.

Study 1: Residential Customer Focus Groups

Sample structure

We conducted five (5) focus groups with a representative sample of AusNet Services' gas customers.

Group	Description	Specifications	Location
1	Pre-family/ younger life stage	• 18-34 years • Mix of gender, bill size, income, own/ rent • No children	**Metro** South Melbourne
2	Family	• 30-49 years • Mix of gender, bill size, income, own/ rent • Children at home	**Metro** South Melbourne
3	Post family/ older life stage	• 50+ years • Mix of gender, bill size, income, working vs. retired, own/ rent • Empty nesters/no children at home	**Metro** South Melbourne
4	Family	• 30-49 years • Mix of gender, bill size, income, own/ rent • Children at home	**Regional** Bendigo
5	Post family/ older life stage	• 50+ years • Mix of gender, bill size, income, working vs. retired, own/ rent • Empty nesters/no children at home	**Regional** Bendigo

Study 2: Customer Engagement Online Survey

Sample structure

We conducted 620 x 15 minute online surveys with a representative sample of AusNet Services' gas customers to empirically test and verify the findings from Study 1 qualitative groups.

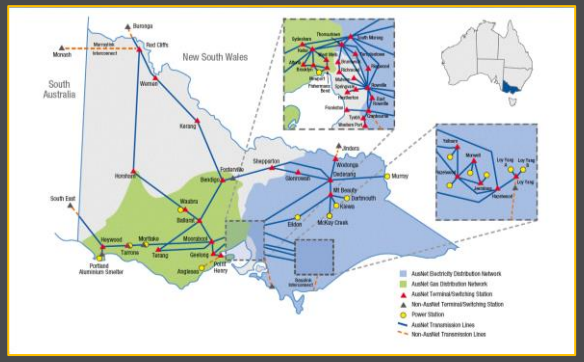
n=620

15 minute online surveys with a representative sample of AusNet Services' gas customers.

Sample structure	n=	%
Gender		
Male	259	42%
Female	361	58%
Age profile		
18-29 years	153	25%
30-49 years	221	36%
50+ years	246	40%
Role in gas		
Residential/ household	577	94%
Business	26	4%
Both business and residential	12	2%

Sample Specifications

- *Must have gas connection and be a gas customer (around 95% of inner Melbourne households have gas connection and 65% of Non-Melbourne households have gas connection)*
- *Must be 18+ years*
- *Must be full or joint decision maker when it comes to gas bills*
- *Representative of age and gender*
- *Geographical location (i.e., metro vs. rural) within AusNet Services coverage area.*



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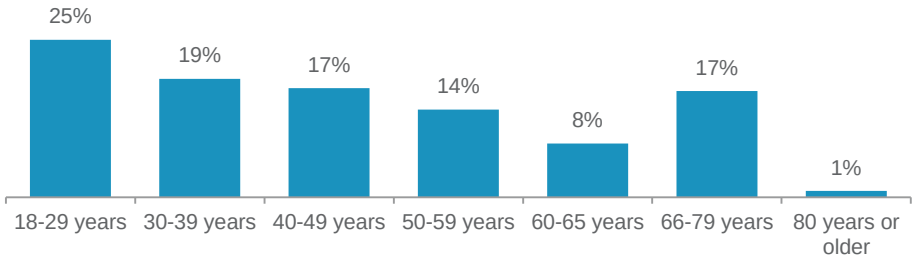
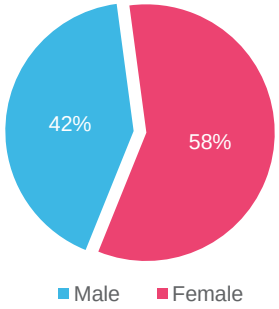
Study 2: Customer Sample Profile

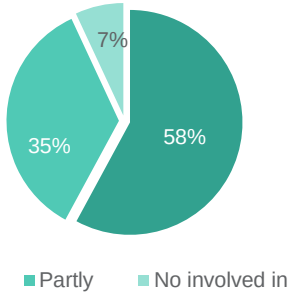
Age



Gender

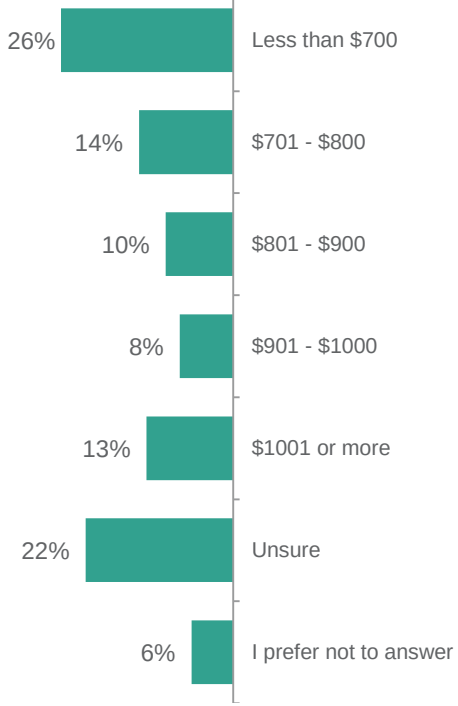


Decision making

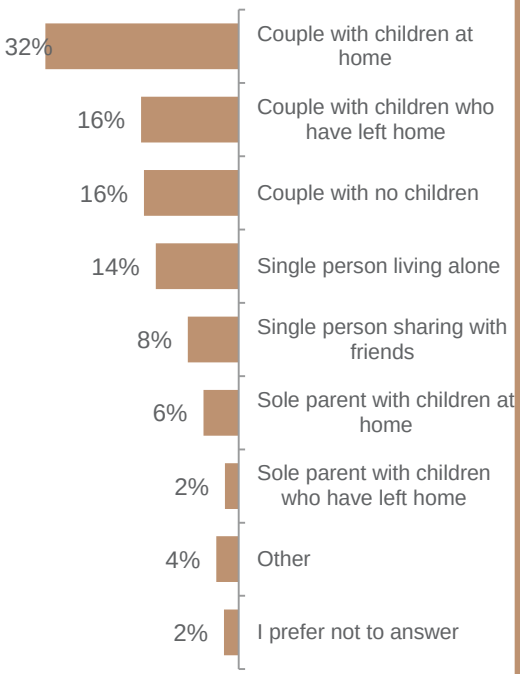


Household income

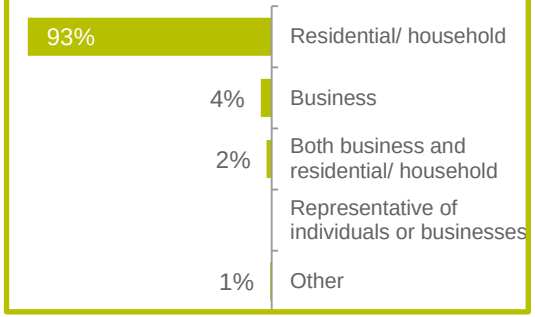
Gas bill



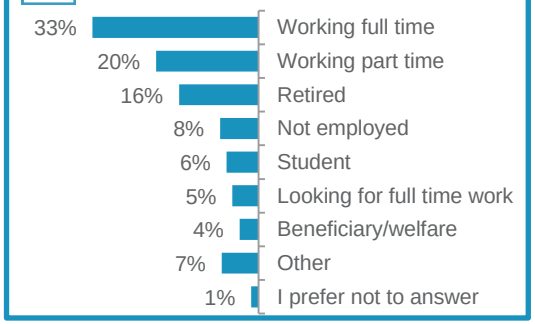
Household structure



Role in gas



Employment status



Q2. Which one of the following age groups do you fall into? Q33. Please indicate your gender. Q3. To help us best understand your responses to this survey, which of the below best describes your role in using gas, or involvement with the gas sector? Q31. Which of the following most applies to decisions made in your household relating to gas? Q32. On average, how much is your household gas bill each year? Q34. Please select which of the following options best describes your current employment status? Q37. What is the total of all wages/salaries, Government benefits, pensions, allowances and other income that YOUR HOUSEHOLD usually receives (Gross – before tax and superannuation deductions)? Q35. Which of the following categories best describes your household? Base: Total respondents n=620

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Study 4: Customer & Stakeholder Focus Groups & Interviews Sample Structure

Four (4) focus groups were held with AusNet Services SM Business Customers. Fieldwork was conducted between 17th and 25th May, 2016.

Group	Description	Specifications	Location
1	Small to medium sized businesses	• Mix of industry types • Fewer than 200 employees • Median annual average gas bill less than $10,000	**Regional** Ballarat
2-4	Small to medium sized businesses	• Mix of industry types • Fewer than 200 employees • Median annual average gas bill less than $10,000	**Metro** South Melbourne

Thirteen (13) in-depth interviews were conducted with Land Developers, Councils and a Big Business representative. Fieldwork was conducted between 16th May and 1st June, 2016.

N	Description	Specifications	Location
1	Big Business*	• Large manufacturing industry	**Geelong**
4	Local Councils	• Mix of metro and regional Councils	**Melbourne, Ballarat, Grampians**
8	Land Developers	• Commercial and/or Residential Land Developers • Mix of metro and regional customers.	**Melbourne and Ballarat**

Big Businesses are traditionally challenging to engage with in research project of this nature and as such this meant that only one Big Business accepted the invitation to engage in the consultation process. However, this business represents AusNet Services' largest commercial user of gas. Therefore this business provided sophisticated and comprehensive feedback on the issues involved in gas supply from the perspective of a Big Business.