

## Jemena Gas Networks (NSW) Ltd

### 2020-25 Access Arrangement Proposal

Attachment 2.3 Engagement materials

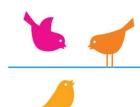




### Jemena Workbook - Forum 1

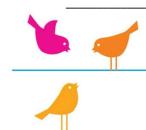
#### **INTRODUCTIONS**

#### **COST OF LIVING EXERCISE**



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#### **APPLIANCE EXERCISE**



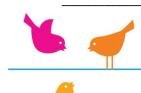
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#### UNDERSTAND USAGE CHARGES AND YOUR GAS BILL

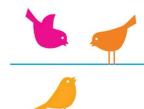
#### **ESTABLISHING A BASE LINE OF CUSTOMER PRIORITIES- WHAT'S IMPORTANT?**



#### WHAT CONTRIBUTES TO THE BILL?

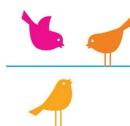


#### **EXPLORE THE THEME OF 'BILL SHOCK'**

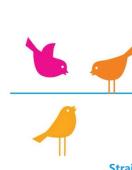


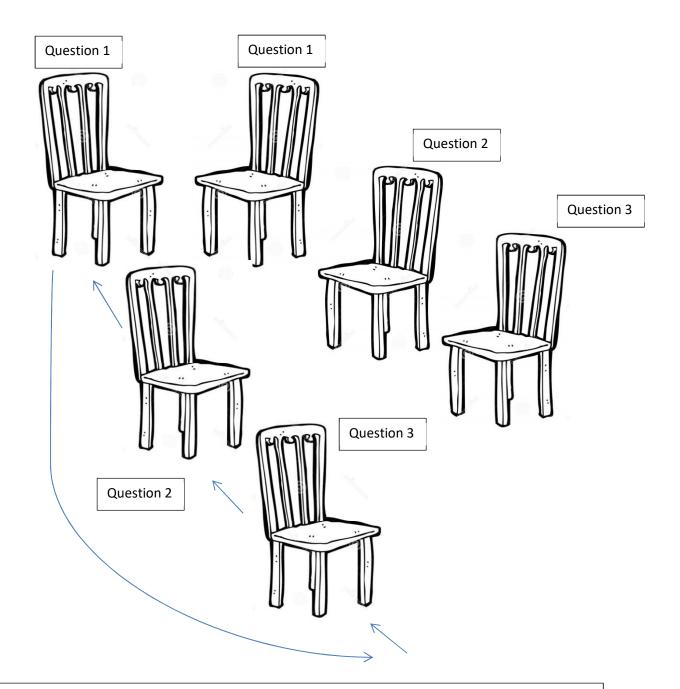
#### THE FUTURE OF GAS

#### **QUESTIONS FOR JEMENA**









Speed dating setup and directions

Participants interview each other – one side first, then after 1 or 2 minutes, they swap

One set of chairs stay where they are; those opposite move one place to either the right or left. One side asks their question of their opposite side and after 2 minutes they swap

After each person has answered each question, everyone on the moving side moves again

Participants take notes of their answers and, once everyone has rotated so they are back in their original seats, all the question 1's combine to synthesise what they heard that was the same, and what was different. They transcribe this onto butchers paper.



# WORKSHOP RUNSHEET

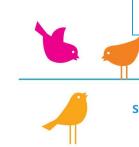
Project:	Jemena Gas Network - Phase 2 engagement							
Workshop:	Goulburn deliberative foru	Goulburn deliberative forum 2: household customers						
Details:								
Date:	Saturday 19 May 2018	Time:	10:30am - 3:30pm	Duration:	5 hours			
			Debrief: 3.40pm					
Venue:	Belmore Room	Team Member:	Nicola, Straight Talk (Lead I	Facilitator)				
	Goulburn Soldiers Club,		Merryn Spencer, Straight Talk					
	15/17 Market St		Kate Hawke, Jemena					
	Goulburn		3					
	02 4821 3300		Caroline Wykamp, Jemena					
			Dallas Smith, Jemena					
			John van Weel, Jemena					
			Sandeep Kumar, Jemena					
			Chris Fitz-Nead - Customer	Challenge Panel member				
Workshop purpose		Reconnect with each other						
		Refresh about deliberation, mini public and group consensus decision making						
		Confirm there is a third for	um and participants willingne	ess to participate				
		Provide answers to custom	er questions from Forum 1					
		Provide more information a	about the four key areas of fo	ocus				



Inform customers about the choices that materially impact the Access Arrangement
Explain the choices that need to be made under the themes price and reliability, price path, fairness and the future of gas
Agree priorities for engagement in forum 3

Time	Session	Content	Speaker	Equipment & Stimulus
10.00am- 10.30am (30 mins)	Room set up Morning tea on arrival	Organise tables and chairs, set up, check catering Orientation for table facilitators 9.30am	N/A	Video Chairs tables
10.30am	Welcome and introductions	Acknowledgement of Country Introduce each member of the team and their roles/responsibilities	Nicola and team	Sign in sheet
10.40am	Why we are here?	<ul> <li>Welcome the participants back</li> <li>Recap on forum 1 and the rules of engagement</li> <li>Confirm we would like to come back, on AUGUST 25, to explore some options for how Jemena could action the feedback that they have been giving.</li> <li>Please consider your willingness to participate in this forum - \$175 each - as we are finding real value in developing expertise within a small group of people and working deeply with them.</li> <li>Nicola to reference 4 extra people joining us in Goulburn</li> </ul>	Nicola	N/A
10.40am- 11.00am	What did you learn?	Did you talk to people since last time, what did they think of Jemena and gas? Or perhaps you looked at the videos and resources we suggested? Pair up in two rows facing each other. Each participant 'speed dates' and answers the following questions.	Nicola	Notebooks Pens Pre written booklet - questions with instructions and space for notes.

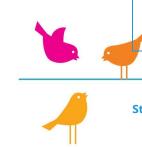
Time	Session	Content	Speaker	Equipment & Stimulus
	Speed dating exercise Groups to theme, clump and sort Plenary discussion	After each question - 4 minutes each, one row rotates to the next person. Question: What have you learnt, either last week or from the resources, that seems important to you? What do other people think about gas, gas pricing and the future of gas? Today we are going to explore fairness, the future of gas, pricing and reliability and the price path - which of these is most important to you? Why? Group reports back on each question		Butchers paper (if needed) Post-it notes (if needed) Instructions for speed dating with the questions (ST) Ensure the questions and instructions are included <b>1.1 Participant Workshop Booklet Forum 2 v2.00</b> <b>1.2 Speed dating description</b>
11am- 11.20am	Answering questions (that don't relate to themes below)	<ul> <li>Last time you asked a number of questions, some of which we will answer now, and others which we will cover off in later sessions.</li> <li>We have combined the questions from both forums - Goulburn and Goulburn - so you all have the same information, but also so you can benefit from the great ideas of each other!</li> <li>Please note the question on the sustainability and the future of gas will be answered in the future of energy session.</li> <li>Estimated meter readings</li> <li>Our investment in R&amp;D, our investment generally, and passing on savings to customers</li> <li>The role of retailers</li> <li>Educating customers on the use of gas</li> <li>Costs and impacts of costs</li> </ul>	Kate	<ul> <li>2.1 Frequently Asked Questions Goulburn and Griffith</li> <li>Will make sure it matches Q&amp;A</li> <li>Bill explanation sheets - see speaker notes</li> <li>2.2 Attachment 1_A Gas bill demystified</li> <li>2.3 Bench marketing graph</li> <li>2.4 Our costs</li> <li>2.5 Gas usage</li> <li>Lead facilitator to facilitate questions if needed.</li> </ul>



Time	Session	Content	Speaker	Equipment & Stimulus
		Jemena's call centre		
11.20am- 11.40am (20 minutes)	Recap on what you prioritised	Review of forum 1 prioritisations. What you told us last time was that for Goulburn, price, fairness and reliability were important but for Goulburn it was price, environment and customer service? Neither group thought aesthetics were important. We talked about the pressures of the cost of living and some of you identified that gas and electricity were significant and others less so; we also talked a lot about fairness and you identified that you wanted to talk about this in different ways, which we will do today is this reflective of what you said? (Plenary)	Nicola Kate	3.1 Priorities Goulburn and Goulburn v2.00
11.40am-12 noon	The regulatory environment Jemena operates in	Overview of the rules under which Jemena must operate, and how these impact on some decisions and approaches Questions of clarification	Catherine	
12 noon - 12.10pm	Explore the theme of Fairness - introduction	The aim of this session is to provide information that customers asked for that relates to fairness. Many of the decisions we make affect how fair things are, particularly around issues of who pays and how. There are many regulatory rules which tell us what we can and can't do. We'd like you to help us understand what you believe is fair. What does this group believe is fair? We know from last week that this question is too big, so we have split it into four different ways to look at fairness. You also asked last week for some examples of fairness - on your table there is a diagram showing three kids at a sports game.	Nicola	Picture of kids at sport Social justice model <b>3.2 Models for fairness</b>



Time	Session	Content	Speaker	Equipment & Stimulus
		The diagram shows that EQUALITY - treating everyone the same - doesn't necessarily mean FAIR: EQUITY is about making sure everyone has access and that may mean different things for different people. We also have a table which tries to demonstrate a Market Justice versus Social Justice model		
		We want you to think about what fair means for customers of Jemena, customers using gas.		
		We are going to divide into 4 tables, and each table will get a question to answer. There is also some background provided to the question.		
		After the groups spend 10 minutes on one question, the group then move to the next table.		
		Note: if less participants, divide into pairs or threes and discuss answers together		
		Then each group will nominate a spokesperson (or the facilitator) to present back to the room the group's views.		
12.10pm-		DEPRECIATION	Kate	Pre-written questions - booklet - p 3
12.20pm		QUESTION 1: With the uncertainty about whether our pipes will actually be used beyond 2050, would it be fairer for current customers to pay more for new		1.1 Participant Workshop Booklet Forum 2 v2.00
		investments we make on the network relative to future customers?		Each question has a space for table facilitator and participants to write their responses.
		BACKGROUND: Many of our gas assets – particularly the gas pipes – won't deteriorate for around 50. They are made of long-lasting plastic. However, there is		Rotating tables
		uncertainty about whether people will actually use gas		Textas
		in 50 years from now. Therefore, we are considering whether to recover the cost of new investment in gas		Butchers paper (if needed)
		pipes faster than we have in the past – for example 30 years instead of 50 years. This would mean that bills		Report back



Time Session	Content	Speaker	Equipment & Stimulus
	<ul> <li>would rise over the next 30 years – around \$7 per annum on average over the next 30 years. The alternative is that we wait until some point in the future when we are clearer about whether the assets aren't going to be used if that turns out to be the case, and only then move to a faster recovery. This would prove to be the right decision where the pipes did end up being needed beyond 30 years, because we wouldn't need to move to that faster recovery charging the additional \$7. However, if they end up being not used, this might result in future customers receiving a more significant price increase as we move closer that time, because we need to rush the recovery into a shorter period. If this was 10 years, we estimate an additional increase of \$20 per annum over those 10 years to cover the catch-up. With the different impacts on current and future customers, thinking on behalf of the community and both current and future generations, what is fairest way of addressing this uncertainty in whether our pipes will be used into the future in terms of how we recover our investment costs?</li> <li>ANALOGY IF REQUIRED: To use an analogy, imagine you own a hotel and just spent \$30,000 on a new renovation. This is a major investment for you. To pay for this, you think this should recover the cost of this \$30,000 investment. However imagine you suddenly receive information from the Government is considering introducing a new tax on hotels, 7 years from now, that might drive you out of business. Your calculations banked on your hotel business operating for at least 10 years. But that's now not clear anymore.</li> </ul>		

Time	Session	Content	Speaker	Equipment & Stimulus
		the price of your rooms even more than \$7 to speed up the recovery of the \$30,000 investment over the next 7 years? This will impact current customers. Or would you not increase your prices by more than the \$7 for now, and wait until the Government had made a decision, one way or another. The risk is that if the Government did follow-through with the ban, you would have to act quickly and increase the cost of your rooms by an additional \$20 over a short period of time to ensure you recovered your \$30,000 investment. This would impact those future customers. What's fair?		
12.20pm- 12.30pm		CAPITAL CONTRIBUTIONS QUESTION 2: Would it be fairer for all new customers to contribute to the cost of a new gas connection, when in the past most haven't had to contribute?	Caroline	1.1 Participant Workshop Booklet Forum 2 v2.00
		BACKGROUND: Around 45,000 new customers connect to the gas network each year. They might be developers who have built new homes, or customers who had all electric appliances but now want gas because they want gas cooking, hot water or heating. This is a good thing for existing customers because it means the cost of our large fixed investments – the \$3 billion of pipes and other equipment already installed – will then be shared amongst more customers in future. This means lower prices for everyone. However, in some cases, a customers can be quite expensive to connect because they might be in an isolated location. This might require us to install a longer more costly pipe, or use expensive excavation equipment to install the pipe. While this new customer would share in paying the cost of our large fixed investments – which is a good thing for all customers – this can be		
		outweighed by the additional large cost they put on everyone else to connect them to the network. We ask		



Time	Session	Content	Speaker	Equipment & Stimulus
		them to pay the difference upfront to connect to the network.		
		However, going forward, we are looking at changing our approach. We are looking at charging all new customers – not just the more costly ones – to connect to the network. This is because we are less confident about how long our customers will use the gas network. In the past, we were confident the gas connections would last over 30 years. Now, we are not so sure. So we want to recover the cost quicker. We may charge all customers an upfront connection fee. Is this fair?		
12.30 - 1pm	LUNCH			
1pm-1.10pm		VULNERABLE CUSTOMERS	Sandeep	1.1 Participant Workshop Booklet Forum 2 v2.00
		QUESTION 3: Is it fair that everyone pays a little bit more to help fund programs led by Jemena to assist vulnerable gas customers?		
		BACKGROUND: Currently, support for vulnerable gas customers (those having significant difficulty paying their gas bill) is generally limited to programs run by gas retailers and the NSW Government. All gas retailers in NSW have programs to help customers in financial difficulty manage their bills more effectively via hardship programs. Energy Accounts Payment Assistance (or EAPA) is a NSW Government Scheme designed to help people who are having trouble paying their gas bill because of a crisis or emergency situation. The Scheme is aimed at helping people in these situations to stay connected. The \$50 EAPA vouchers are distributed to gas (and electricity) customers by a range of community welfare organisations such as St Vincents de Paul. If you are in financial hardship due to a crisis or emergency		



Time	Session	Content	Speaker	Equipment & Stimulus
		situation you can apply for EAPA voucher assistance. The question for Jemena is whether we – as your gas distributor – also have a role in helping customers manage their bills, beyond just keeping a close watch on our 37% of the bill. We don't currently invest in programs to specifically support vulnerable customers. However we could look at targeted ways to supplement what the retailers and Government do. This would come at a cost, and this cost would be recovered from all customers. Roughly, every \$1 million we put towards these sort of programs would add around \$1 to your annual gas bills.		
1.10 -1.20pm		GAS PRESSURE QUESTION 4: Is it fair that the pressure in the network is lower in some areas than others meaning some customers can't use modern gas appliances (specifically instantaneous hot water)?	Dallas	1.1 Participant Workshop Booklet Forum 2 v2.00
		BACKGROUND In some of the older parts of our network—like Kensington in Sydney and Goulburn in regional NSW—we can't supply gas at the same pressure as in the newer parts of the network. For customers in their older network areas, this means that many can't use modern gas appliances like instantaneous gas hot water systems. Is it fair that some customers do not receive the same level of service than other customers? We could upgrade older parts of the network to a more modern standard – but that would meant a slight increase in bills for everyone.		
		ANALOGY: Our approach to managing the gas pressure is a bit like travelling with your children in the car. Dad turns down the aircon on a hot day because it costs more in petrol. Previously he would adjust the air con to provide 23 degrees in the car, but he now		

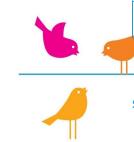
Time	Session	Content	Speaker	Equipment & Stimulus
		increases the air con at 25 degrees. Dad knows that around 28 degrees the kids become irritable and will start to complain. He also knows there are added risks as it might take longer for the car to cool at 25 degrees. To avoid this he continually monitors the car temperature gauge. We also want to reduce our costs to lower bills, we have effectively increased the car temperature as it is similar to how we monitor pressure in the network. We don't think there will be impact on customers but we don't know because we've never changed the temperature to risk the potential impact. However, we have now started to do this. What do you think about this?		
1.20pm- 1.40pm		Plenary - present back - what did you learn? (allow 4 min per group) What more information do you think you need in order to answer fairness questions better?		
1.50 pm	Explore the theme of Future of the Gas Network	QUESTIONS FROM LAST WEEK We are in a time of significant change – in many aspects of our lives technology is changing how we do things – and new technologies are changing the face of energy as well. RAISE YOUR HANDS IF YOU'VE HEARD OF ELON MUSK; RAISE YOUR HANDS IF YOU'D HEARD OF HIM 5 YEARS AGO. Tesla has become a household name in a very short space of time, and that's one example of the pace of change. The thing about change though, is that not everyone always agrees, and there is often a period of time where people discuss different views on how they think the future will be. In the future you might get your energy needs delivered to you in a very different way.	Nicola	Questions from last week4.1 Speaker Notes - Forum 2Hydrogen video:https://www.youtube.com/watch?v=e3xKfyc iEU4.2 videos1. Elon Muskhttps://www.youtube.com/watch?v=yFPnT-DCBVs2. Jemenahttps://www.youtube.com/watch?v=-6ZevrJwvyU3. ATA



Time	Session	Content	Speaker	Equipment & Stimulus
		No one knows what the future will look like for gas, but many people have different views, here are a few		https://1drv.ms/v/s!Al08m3BYjwYOmB9oLEH8aUqDXW 4. AEMO - the independent energy market operator
		different opinions:		https://www.youtube.com/watch?v=FFa1jLHP-Fg
		1. Elon Musk		<u>Interset in a graduate contraction in a grad ing</u>
		2. Jemena		4.2 Driavities for the future template
		3. ATA		4.3 Priorities for the future template
		4. AEMO - the independent energy market operator		Use chip tokens to prioritise in groups each priority for the future
		Group discussion with butchers paper and post it notes		
		Last week we looked at customer priorities for their		A3 sheet - 7 priorities per sheet
		energy supply, we thought about whether or not price was more important than safety and reliability and so on.		Coins - 10 per group
		As we start to delve into these themes a bit further we want to look at what customer priorities are for the longer term, let's say 2050		
		Not all of the things we are prioritising for the future are trade-offs – many of these things might be possible, but if we understand what customer preferences are we can make better decisions		IF there is time, ask the group to move to one side of t room for one position and the other for the opposing position, and facilitate a for/against discussion (light heartedly)
2.20pm		What are your priorities for the future?		If no time, continuum line
		Reducing the cost of energy for all customers - It's often hard to know whether changes will increase or decrease prices. We have talked to you a little about ways we can reduce costs, by delaying maintenance and renewals, for example. What we want to understand is how important for customers – as a whole, for everyone – that the cost of energy is reduced?		n no time, continuum me



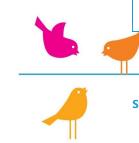
Time	Session	Content	Speaker	Equipment & Stimulus
		Zero Carbon energy for all of Australia - The government promised to reduce emissions by between 26 and 28 per cent by 2030 as part of the Paris climate change accord agreed in November last year. Jemena, like every other business, needs to do its bit to achieve this goal. Do you agree this is an important priority for Australia?		
		Individuals meeting their own energy needs - Do you think that people becoming more self-sufficient and meeting their own energy needs is the way of the future? Like solar and batteries or even at home bio- gas solutions?		
		Reducing our need for energy (energy efficiency) - The cleanest energy of all is the energy you don't have to produce or deliver. Should reducing our energy consumption be a priority for the future?		
		Having multiple sources of fuel in your house - If you went all electric and had no gas, then an electricity outage would affect all your appliances. If you had gas, you could still have cooking, heating and hot water. Is this important to you?		
		Come back to plenary for discussion around why you've prioritised these.		
		Finally on this issue - if you had to choose between reducing the cost of energy for all customers and encouraging self-sufficiency (which will increase costs for those left on the network), what would be your preference?		
		What other information would help you understand the future of the gas network?		
2.40pm	Explore the theme of	Many of the decisions we make are a trade-off between price and reliability. Given the uncertainty	Veronica & Kate	5.1 Price and reliability

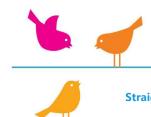


Time	Session	Content	Speaker	Equipment & Stimulus
	Price and Reliability	over the future we have been reviewing our current practices to make sure we get the balance right	Nicola	Table activity: Templates with scale for each table to identify where the
		between keeping costs down and ensure we meet the needs of the future.		think the priorities are - A3 as a table.
		Here are a couple of changes we are proposing,		Whole group activity:
		explain each one and the consequences, which of these do you think we should do more of or less of:		Plenary discussion on each issue, using a continuum lin- with group standing to establish a group view (once ea
		Reduce the pressure in the network (costs and reliability goes down): eg so your pasta doesn't cook		group has presented their perspective and a discussion has been held).
		as fast, but your bills are less		Prompt questions, for example - why do you think that? Explore each
		Defer upgrade works (costs and reliability go down), for example, your bills are less, but the gas is not as reliable.		
		Upgrade works effect everybody. Is it fair that everyone's costs go down, but some people (on the edge of the network) wear the impact of loss of reliability?		
		Discussion: Are there other things you think Jemena should be doing more of or less of?		
		What additional information would help you to answer questions about the trade offs of price and reliability?		
2.55pm	Afternoon tea	Working afternoon tea		
3.00pm	Explore the theme of Bill	Over the course of 2020-2025 we need to cover the	Nicola	6.1 Bill Shock
	Shock	costs of maintaining and building the network - there are a number of ways we could do that, we would like		Small group discussion
		our customers to steer our decision making.		Agreement as a group - template
		We know that unexpected increases in bills are really difficult for some people. We are looking at ways in		
		which we can better manage this, and we want to		



Time	Session	Content	Speaker	Equipment & Stimulus
		understand, from you, what you think about the impact of unexpected increases in your gas bill.		
		At what point does the gas bill prompt you to change your lifestyle? When it is: \$20, \$50, \$80, \$100, \$120, \$140 higher?		
		What additional information would help you with questions like this?		
3.20pm	Prioritisation of engagement	Of all the topics discussed today, what do you think are the most important for customers? We want to come back and work on practical examples of how we can reflect customer priorities - what should we focus on? At your table, discuss Plenary discussion - identify key themes.	Nicola	7.1 Prioritisation of engagement laminates
3.30pm	Wrap up and close	Thank you We would really love it if a couple of you, if you are interested, would agree to work with us on preparing materials for the next session? It would involve reviewing written materials and probably a couple of phone calls? Would anyone be interested in that? Look ahead to next session and what will be covered Stipends to be paid at the end of session 2 Discuss and ask if they are prepared to come back on the 25 August. Is there anyone who is not able to attend? Participants depart	Nicola	<ul> <li>3 Brochures from Jemena to give out - gas vision.</li> <li>Energy networks</li> <li>TA gas pre for Jeme5.ppx</li> <li>Feedback forms</li> <li>Sign in sheets for Stipend collection - participants will need to sign to receive</li> <li>Yes, I'm available to come back - indicate on sign in sheet.</li> <li>Collate feedback forms</li> </ul>
3.40pm	Team to stay behind	Debrief		







# WORKSHOP RUNSHEET

Project:	Jemena Gas Network - Ph	Jemena Gas Network - Phase 2 engagement					
Workshop:	Griffith deliberative forum	2: household customers					
Details:							
Date:	Saturday 19 May 2018	Time:	11:30am - 4:30pm	Duration:	5 hours		
			Debrief: 4.40pm				
Venue:	Riverina Room,	Team Members:	Lucy Cole-Edelstein, Straig	ht Talk (Lead Facilitator)			
	Quest Griffith,		Sesilia Devine, Straight Talk				
	53 Railway Street,		Gabrielle Sycamore, General Manager: Gas Markets				
	Griffith	ith Alex McPherson, Asset Regulation & Strategy Manager					
			Danielle Beinart, Product M	1anager: Gas Markets			
			Aaron Greaves, Network Development Manager I & C				
			Veronica Wieckowski, Capacity Planning Manager				
			Conrad Guimaraes, Policy & Engagement Coordinator				
Workshop purpose		Reconnect with each	a other				
			eration, mini public and group (	consensus decision making			
			nird forum and participants willi				
		Commit there is a third forum and participants winnighess to participate					

- Provide answers to customer questions from Forum 1
- Provide more information about the four key areas of focus



•	Inform customers about the choices that materially impact the Access Arrangement
•	Explain the choices that need to be made under the themes price and reliability, price path, fairness and the future of gas
•	Agree priorities for engagement in forum 3

Time	Session	Content	Speaker	Equipment & Stimulus
10:30am- 11.30am (30 mins)	Room set up Morning tea on arrival	Organise tables and chairs, set up, check catering Orientation for table facilitators 9.30am	N/A	Video Chairs tables Sign in sheet
11.30am	Welcome and introductions	Acknowledgement of Country Introduce each member of the team and their roles/responsibilities	Lucy and team	N/A
11.40am	Why we are here?	<ul> <li>Welcome the participants back</li> <li>Recap on forum 1 and the rules of engagement</li> <li>Confirm we would like to come back, on AUGUST 25, to explore some options for how Jemena could action the feedback that they have been giving.</li> <li>Please consider your willingness to participate in this forum - \$175 each - as we are finding real value in developing expertise within a small group of people and working deeply with them.</li> <li>Nicola to reference 4 extra people joining us in Goulburn</li> </ul>	Lucy	N/A
11.40am- 12noon	What did you learn?	Did you talk to people since last time, what did they think of Jemena and gas? Or perhaps you looked at the videos and resources we suggested?	Lucy	Notebooks Pens



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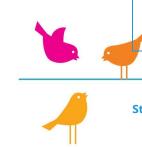
Time	Session	Content	Speaker	Equipment & Stimulus
	Speed dating	Pair up in two rows facing each other. Each participant 'speed dates' and answers the following questions.		Pre written booklet - questions with instructions and space for notes.
	exercise	After each question - 4 minutes each, one row rotates to the next person.		Butchers paper (if needed)
	Groups to theme,	Question:		Post-it notes (if needed)
	clump and	What have you learnt, either last week or from the		Instructions for speed dating with the questions (ST)
	sort	resources, that seems important to you?		Ensure the questions and instructions are included
		What do other people think about gas, gas pricing and the future of gas?		1.1 Participant Workshop Booklet Forum 2 v2.00 1.2 Speed dating description
	Plenary discussion	Today we are going to explore fairness, the future of gas, pricing and reliability and the price path - which of these is most important to you? Why?		
		Group reports back on each question		
12noon-	Answering	Last time you asked a number of questions, some of	Lucy	2.1 Frequently Asked Questions Goulburn and Griff
12.20pm	questions (that don't		Gabby	Will make sure it matches Q&A
	relate to	We have combined the questions from both forums -		Bill explanation sheets - see speaker notes
	themes below)	Goulburn and Goulburn - so you all have the same		2.2 Attachment 1_A Gas bill demystified
		ideas of each other!		2.3 Bench marketing graph
		Please note the question on the sustainability and the		2.4 Our costs
		future of gas will be answered in the future of energy session.		2.5 Gas usage
		Estimated meter readings		Lead facilitator to facilitate questions if needed.
		Our investment in R&D, our investment generally, and passing on savings to customers		
		The role of retailers		
		Educating customers on the use of gas		
A		Costs and impacts of costs		



Time	Session	Content	Speaker	Equipment & Stimulus
		Jemena's call centre		
12.20pm- 12.40pm	Recap on what you prioritised	Review of forum 1 prioritisations. What you told us last time was that for Goulburn, price, fairness and reliability were important but for Goulburn it was price, environment and customer service? Neither group thought aesthetics were important. We talked about the pressures of the cost of living and some of you identified that gas and electricity were significant and others less so; we also talked a lot about fairness and you identified that you wanted to talk about this in different ways, which we will do today is this reflective of what you said? (Plenary)	Lucy Gabby	3.1 Priorities Goulburn and Goulburn v2.00
12.40pm- 1.00pm	The regulatory environment Jemena operates in	Overview of the rules under which Jemena must operate, and how these impact on some decisions and approaches Questions of clarification	Alex	
00pm- 10pm	Explore the theme of Fairness - introduction	The aim of this session is to provide information that customers asked for that relates to fairness. Many of the decisions we make affect how fair things are, particularly around issues of who pays and how. There are many regulatory rules which tell us what we can and can't do. We'd like you to help us understand what you believe is fair. What does this group believe is fair? We know from last week that this question is too big, so we have split it into four different ways to look at fairness. You also asked last week for some examples of fairness - on your table there is a diagram showing three kids at a sports game.	Lucy	Picture of kids at sport Social justice model <b>3.2 Models for fairness</b>



Time	Session	Content	Speaker	Equipment & Stimulus
		The diagram shows that EQUALITY - treating everyone the same - doesn't necessarily mean FAIR: EQUITY is about making sure everyone has access and that may mean different things for different people. We also have a table which tries to demonstrate a Market Justice versus Social Justice model		
		We want you to think about what fair means for customers of Jemena, customers using gas.		
		We are going to divide into 4 tables, and each table will get a question to answer. There is also some background provided to the question.		
		After the groups spend 10 minutes on one question, the group then move to the next table.		
		Note: if less participants, divide into pairs or threes and discuss answers together		
		Then each group will nominate a spokesperson (or the facilitator) to present back to the room the group's views.		
1.10pm-		DEPRECIATION	Alex	Pre-written questions - booklet - p 3
1.20pm		QUESTION 1: With the uncertainty about whether our pipes will actually be used beyond 2050, would it be fairer for current customers to pay more for new		1.1 Participant Workshop Booklet Forum 2 v2.00
		investments we make on the network relative to future customers?		Each question has a space for table facilitator and participants to write their responses.
		BACKGROUND: Many of our gas assets – particularly the gas pipes – won't deteriorate for around 50. They are made of long-lasting plastic. However, there is		Rotating tables
		uncertainty about whether people will actually use gas		Textas
		in 50 years from now. Therefore, we are considering whether to recover the cost of new investment in gas		Butchers paper (if needed)
		pipes faster than we have in the past – for example 30 years instead of 50 years. This would mean that bills		Report back

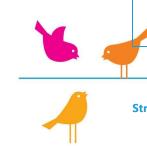


Time Session	Content	Speaker	Equipment & Stimulus
	<ul> <li>would rise over the next 30 years – around \$7 per annum on average over the next 30 years. The alternative is that we wait until some point in the future when we are clearer about whether the assets aren't going to be used if that turns out to be the case, and only then move to a faster recovery. This would prove to be the right decision where the pipes did end up being needed beyond 30 years, because we wouldn't need to move to that faster recovery charging the additional \$7. However, if they end up being not used, this might result in future customers receiving a more significant price increase as we move closer that time, because we need to rush the recovery into a shorter period. If this was 10 years, we estimate an additional increase of \$20 per annum over those 10 years to cover the catch-up. With the different impacts on current and future customers, thinking on behalf of the community and both current and future generations, what is fairest way of addressing this uncertainty in whether our pipes will be used into the future in terms of how we recover our investment costs?</li> <li>ANALOGY IF REQUIRED: To use an analogy, imagine you own a hotel and just spent \$30,000 on a new renovation. This is a major investment for you. To pay for this, you think this should recover the cost of this \$30,000 investment. However imagine you suddenly receive information from the Government is considering introducing a new tax on hotels, 7 years from now, that might drive you out of business. Your calculations banked on your hotel business operating for at least 10 years. But that's now not clear anymore.</li> </ul>		

the price of your rooms even monup the recovery of the \$30,000 in next 7 years? This will impact curr would you not increase your price \$7 for now, and wait until the Go decision, one way or another. The Government did follow-through twould have to act quickly and inc rooms by an additional \$20 over to ensure you recovered your \$30 This would impact those future cut 1.20pm- 1.30pm1.20pm- 1.30pmCAPITAL CONTRIBUTIONS QUESTION 2: Would it be fairer for to contribute to the cost of a new when in the past most haven't ha BACKGROUND: Around 45,000 ne connect to the gas network each developers who have built new hw who had all electric appliances bu because they want gas cooking, f This is a good thing for existing c means the cost of our large fixed billion of pipes and other equipm - will then be shared amongst mon future. This means lower prices for in some cases, a customers can be priced the pipel the	e than \$7 to speed		
1.30pm QUESTION 2: Would it be fairer for to contribute to the cost of a new when in the past most haven't ha BACKGROUND: Around 45,000 ne connect to the gas network each developers who have built new he who had all electric appliances bu because they want gas cooking, h This is a good thing for existing c means the cost of our large fixed billion of pipes and other equipm – will then be shared amongst me future. This means lower prices for in some cases, a customers can b	estment over the ent customers. Or s by more than the ernment had made a risk is that if the ith the ban, you ease the cost of your short period of time 000 investment.		
BACKGROUND: Around 45,000 ne connect to the gas network each developers who have built new he who had all electric appliances bu because they want gas cooking, h This is a good thing for existing c means the cost of our large fixed billion of pipes and other equipm – will then be shared amongst me future. This means lower prices for in some cases, a customers can b	r all new customers gas connection,	Danielle	1.1 Participant Workshop Booklet Forum 2 v2.00
This might require us to install a l pipe, or use expensive excavation the pipe. While this new custome paying the cost of our large fixed is a good thing for all customers outweighed by the additional larg	w customers ear. They might be mes, or customers in ow want gas of water or heating. stomers because it nvestments – the \$3 ent already installed re customers in everyone. However, quite expensive to an isolated location. orger more costly equipment to install would share in nvestments – which this can be		



Time	Session	Content	Speaker	Equipment & Stimulus
		them to pay the difference upfront to connect to the network.		
		However, going forward, we are looking at changing our approach. We are looking at charging all new customers – not just the more costly ones – to connect to the network. This is because we are less confident about how long our customers will use the gas network. In the past, we were confident the gas connections would last over 30 years. Now, we are not so sure. So we want to recover the cost quicker. We may charge all customers an upfront connection fee. Is this fair?		
1.30 - 2pm	LUNCH			
2.pm-2.10pm		VULNERABLE CUSTOMERS	Aaron	1.1 Participant Workshop Booklet Forum 2 v2.00
		QUESTION 3: Is it fair that everyone pays a little bit more to help fund programs led by Jemena to assist vulnerable gas customers?		
		BACKGROUND: Currently, support for vulnerable gas customers (those having significant difficulty paying their gas bill) is generally limited to programs run by gas retailers and the NSW Government. All gas retailers in NSW have programs to help customers in financial difficulty manage their bills more effectively via hardship programs. Energy Accounts Payment Assistance (or EAPA) is a NSW Government Scheme designed to help people who are having trouble paying their gas bill because of a crisis or emergency situation. The Scheme is aimed at helping people in these situations to stay connected. The \$50 EAPA vouchers are distributed to gas (and electricity) customers by a range of community welfare organisations such as St Vincents de Paul. If you are in		
		organisations such as St Vincents de Paul. If you are in financial hardship due to a crisis or emergency		



Time	Session	Content	Speaker	Equipment & Stimulus
		situation you can apply for EAPA voucher assistance. The question for Jemena is whether we – as your gas distributor – also have a role in helping customers manage their bills, beyond just keeping a close watch on our 37% of the bill. We don't currently invest in programs to specifically support vulnerable customers. However we could look at targeted ways to supplement what the retailers and Government do. This would come at a cost, and this cost would be recovered from all customers. Roughly, every \$1 million we put towards these sort of programs would add around \$1 to your annual gas bills.		
2.10 -2.20pm		GAS PRESSURE QUESTION 4: Is it fair that the pressure in the network	Veronica	1.1 Participant Workshop Booklet Forum 2 v2.00
		is lower in some areas than others meaning some customers can't use modern gas appliances (specifically instantaneous hot water)?		
		BACKGROUND In some of the older parts of our network—like Kensington in Sydney and Goulburn in regional NSW—we can't supply gas at the same pressure as in the newer parts of the network. For customers in their older network areas, this means that many can't use modern gas appliances like instantaneous gas hot water systems. Is it fair that some customers do not receive the same level of		
		service than other customers? We could upgrade older parts of the network to a more modern standard – but that would meant a slight increase in bills for everyone.		
		ANALOGY: Our approach to managing the gas pressure is a bit like travelling with your children in the car. Dad turns down the aircon on a hot day because it costs more in petrol. Previously he would adjust the air		
		con to provide 23 degrees in the car, but he now		



Time	Session	Content	Speaker	Equipment & Stimulus
		increases the air con at 25 degrees. Dad knows that around 28 degrees the kids become irritable and will start to complain. He also knows there are added risks as it might take longer for the car to cool at 25 degrees. To avoid this he continually monitors the car temperature gauge. We also want to reduce our costs to lower bills, we have effectively increased the car temperature as it is similar to how we monitor pressure in the network. We don't think there will be impact on customers but we don't know because we've never changed the temperature to risk the potential impact. However, we have now started to do this. What do you think about this?		
2.20pm- 2.40pm		Plenary - present back - what did you learn? (allow 4 min per group) What more information do you think you need in order to answer fairness questions better?		
2.50 pm	Explore the theme of Future of the Gas Network	QUESTIONS FROM LAST WEEK We are in a time of significant change – in many aspects of our lives technology is changing how we do things – and new technologies are changing the face of energy as well. RAISE YOUR HANDS IF YOU'VE HEARD OF ELON MUSK; RAISE YOUR HANDS IF YOU'D HEARD OF HIM 5 YEARS AGO. Tesla has become a household name in a very short space of time, and that's one example of the pace of change. The thing about change though, is that not everyone always agrees, and there is often a period of time where people discuss different views on how they think the future will be. In the future you might get your energy needs delivered to you in a very different way.	Gabby Lucy	Questions from last week4.1 Speaker Notes - Forum 2Hydrogen video:https://www.youtube.com/watch?v=e3xKfyc iEU4.2 videos1. Elon Muskhttps://www.youtube.com/watch?v=yFPnT-DCBVs2. Jemenahttps://www.youtube.com/watch?v=-6ZevrJwvyU3. ATA

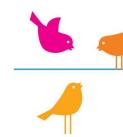


Time	Session	Content	Speaker	Equipment & Stimulus
		No one knows what the future will look like for gas, but many people have different views, here are a few different opinions:		https://1drv.ms/v/s!Al08m3BYjwYOmB9oLEH8aUqDXWM 4. AEMO - the independent energy market operator
		1. Elon Musk		https://www.youtube.com/watch?v=FFa1jLHP-Fg
		2. Jemena		4.3 Priorities for the future template
		<ul><li>3. ATA</li><li>4. AEMO - the independent energy market operator</li><li>Group discussion with butchers paper and post it</li></ul>		Use chip tokens to prioritise in groups each priority for the future
		Last week we looked at customer priorities for their energy supply, we thought about whether or not price was more important than safety and reliability and so		A3 sheet - 7 priorities per sheet Coins - 10 per group
		on. As we start to delve into these themes a bit further we want to look at what customer priorities are for the longer term, let's say 2050		
		Not all of the things we are prioritising for the future are trade-offs – many of these things might be possible, but if we understand what customer preferences are we can make better decisions		IF there is time, ask the group to move to one side of the room for one position and the other for the opposing position, and facilitate a for/against discussion (light heartedly)
		What are your priorities for the future?		If no time, continuum line
		Reducing the cost of energy for all customers - It's often hard to know whether changes will increase or decrease prices. We have talked to you a little about ways we can reduce costs, by delaying maintenance and renewals, for example. What we want to understand is how important for customers – as a whole, for everyone – that the cost of energy is reduced?		



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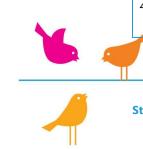
Time	Session	Content	Speaker	Equipment & Stimulus
		Zero Carbon energy for all of Australia - The government promised to reduce emissions by between 26 and 28 per cent by 2030 as part of the Paris climate change accord agreed in November last year. Jemena, like every other business, needs to do its bit to achieve this goal. Do you agree this is an important priority for Australia?		
		Individuals meeting their own energy needs - Do you think that people becoming more self-sufficient and meeting their own energy needs is the way of the future? Like solar and batteries or even at home bio- gas solutions?		
		Reducing our need for energy (energy efficiency) - The cleanest energy of all is the energy you don't have to produce or deliver. Should reducing our energy consumption be a priority for the future?		
		Having multiple sources of fuel in your house - If you went all electric and had no gas, then an electricity outage would affect all your appliances. If you had gas, you could still have cooking, heating and hot water. Is this important to you?		
		Come back to plenary for discussion around why you've prioritised these.		
		Finally on this issue - if you had to choose between reducing the cost of energy for all customers and encouraging self-sufficiency (which will increase costs for those left on the network), what would be your preference?		
		What other information would help you understand the future of the gas network?		
3.40pm	Explore the theme of	Many of the decisions we make are a trade-off between price and reliability. Given the uncertainty	Alex	5.1 Price and reliability

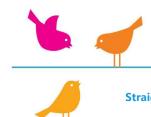


Time	Session	Content	Speaker	Equipment & Stimulus
	Price and Reliability	over the future we have been reviewing our current practices to make sure we get the balance right between keeping costs down and ensure we meet the needs of the future.	Lucy	Table activity: Templates with scale for each table to identify where the think the priorities are - A3 as a table.
		Here are a couple of changes we are proposing, explain each one and the consequences, which of these do you think we should do more of or less of:		Whole group activity: Plenary discussion on each issue, using a continuum lin with group standing to establish a group view (once each
		Reduce the pressure in the network (costs and reliability goes down): eg so your pasta doesn't cook as fast, but your bills are less		group has presented their perspective and a discussion has been held). Prompt questions, for example - why do you think that?
		Defer upgrade works (costs and reliability go down), for example, your bills are less, but the gas is not as reliable.		Explore each
		Upgrade works effect everybody. Is it fair that everyone's costs go down, but some people (on the edge of the network) wear the impact of loss of reliability?		
		Discussion: Are there other things you think Jemena should be doing more of or less of?		
		What additional information would help you to answer questions about the trade offs of price and reliability?		
3.55pm	Afternoon tea	Working afternoon tea		
4 pm	Explore the	Over the course of 2020-2025 we need to cover the	Conrad	6.1 Bill Shock
	theme of Bill Shock	costs of maintaining and building the network - there are a number of ways we could do that, we would like		Small group discussion
		our customers to steer our decision making.		Agreement as a group - template
		We know that unexpected increases in bills are really difficult for some people. We are looking at ways in which we can better manage this, and we want to		



Time	Session	Content	Speaker	Equipment & Stimulus
		understand, from you, what you think about the impact of unexpected increases in your gas bill.		
		At what point does the gas bill prompt you to change your lifestyle? When it is: \$20, \$50, \$80, \$100, \$120, \$140 higher?		
		What additional information would help you with questions like this?		
4.20pm	Prioritisation of engagement	Of all the topics discussed today, what do you think are the most important for customers? We want to come back and work on practical examples of how we can reflect customer priorities - what should we focus on? At your table, discuss Plenary discussion - identify key themes.	Lucy	7.1 Prioritisation of engagement laminates
4.30pm	Wrap up and close	Thank you We would really love it if a couple of you, if you are interested, would agree to work with us on preparing materials for the next session? It would involve reviewing written materials and probably a couple of phone calls? Would anyone be interested in that? Look ahead to next session and what will be covered Stipends to be paid at the end of session 2 Discuss and ask if they are prepared to come back on the 25 August. Is there anyone who is not able to attend? Participants depart	Lucy	3 Brochures from Jemena to give out - gas vision. Energy networks TA gas pre for Jeme5.ppx Feedback forms Sign in sheets for Stipend collection - participants will need to sign to receive Yes, I'm available to come back - indicate on sign in sheet. Collate feedback forms
4.40pm	Team to stay behind	Debrief		

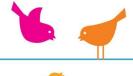






# RUNSHEET: FORUM 2

Project:	Jemena Gas Network - Pł	Jemena Gas Network - Phase 2 engagement						
Workshop:	Newcastle deliberative fo	rum 2: household customers						
Details:								
Date:	Saturday 30 <sup>th</sup> June 2018	Time:	9.30am-10am – briefing	Duration:	5 hours			
			10:30am - 3:30pm					
			Debrief: 3.40pm – 4pm					
Venue:	The King Street Room,	Team Member:	Rachel Fox, Straight Talk (Lead Facilitator)					
	NEX – Newcastle Exhibition and		Sesi Divine, Straight Talk					
	Convention Centre		Kate Hawke, Customer Engagement Manager, Jemena					
	309 King St,		Shaun Reardon, Executive	haun Reardon, Executive General Manager, Strategy Regulation and Markets, Jemena				
	Newcastle West		Chris Stewart, Senior Regu	latory Advisor, Jemena				
			Caroline McGeechan, Acce	ss Arrangement, Commercial	Stream Lead, Gas Markets, Jemena			
			Jasmine Wu, Senior Asset I	nvestment Engineer, Jemena				
			Stephen Angel, Manager N	letwork Connections, Jemena				
			Jacqueline Nalder, Marketi	ng and Communications Adv	isor, Jemena			
			Craig Memery, Policy Team Interest Advocacy Centre (		nsumers' Advocacy Program, Public			

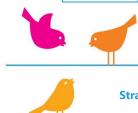


Workshop purpose	Reconnect with each other
	Refresh about deliberation, mini public and group consensus decision making
	Confirm there is a third forum and participants willingness to participate
	Provide answers to customer questions from Forum 1
	Provide more information about the four key areas of focus
	Inform customers about the choices that materially impact the Access Arrangement
	• Explain the choices that need to be made under the themes price and reliability, price path, fairness and the future of
	gas
	Agree priorities for engagement in forum 3

Time	Session	Content	Speaker	Equipment & Stimulus
9:30am-	Room set up	Organise tables and chairs, set up, check catering	N/A	Video
10am		Orientation for table facilitators 9.30am		Chairs tables
(30 mins)				Sign in sheet
10am –	Welcome	Team briefing	Lead Facilitator	Runsheet
10:30am	and introductions	Introduce each member of the team and their roles / responsibilities		Speaker Notes
(30 mins)	introductions			Notepads + Pens
10:30am –	Morning Tea	Welcome the participants back	Lead Facilitator	N/A
10:40am (10 mins)	on arrival	Acknowledgement of Country	Team	
(************		Housekeeping		
		Who is in the room?		
		Morning Tea		
10:40am –	Why we are	Recap on forum 1 and the rules of engagement, respect for each other	Lead Facilitator	N/A
10:50am (10 mins)	here?	Have you enjoyed this process?		



Time	Session	Content	Speaker	Equipment & Stimulus
		Confirm we would like to come back, on <b>SEPTEMBER 22</b> , to explore some options for how Jemena could action the feedback that they have been giving.		
		Please consider your willingness to participate in this forum - \$175 each - as we are finding real value in developing expertise within a small group of people and working deeply with them.		
10:50am – 11:05am	What did you learn?	Did you talk to people since last time, what did they think of Jemena and gas? Or perhaps you looked at the videos and resources we suggested?	Lead Facilitator	Notebooks & Pens Participant Workshop Booklet
(15 mins)	Small Group	Split into 3 groups, and change the groups for each question		Forum 2 v2.00
	exercise	After each question - 4 minutes each, one row rotates to the next person.		
		Questions:		
		1. What have you learnt, either last week or from the resources, that seems important to you?		
		2. What do other people think about gas, gas pricing and the future of gas?		
		3. Today we are going to explore fairness, the future of gas, pricing and reliability and the price path - which of these is most important to you? Why?		
		Group reports back on each question (plenary discussion)		
11:05am – 11:15am	Answering questions	Last time you asked a number of questions, some of which we will answer now, and others which we will cover off in later sessions.	Chris Lead Facilitator	FAQs Newcastle: Top 5 questions
(10 mins)	(that don't	We have collected the top 5 questions from Forum 1.		Handout: All Questions
	relate to themes below)	Please note the question on the sustainability and the future of gas will be answered in the future of energy session.		Bill explanation sheets - see speaker notes
	50.000)			Attachment 1_A Gas bill demystified
				Bench marketing graph
				Our costs
				Gas usage



Time	Session	Content	Speaker	Equipment & Stimulus
11:20am – 11:40am (15 mins)	Recap on what you prioritised	Review of forum 1 prioritisations. What you told us last time was that price and reliability were important. We also talked about safety, the environment and fairness. Is this reflective of what you said? We also have the results here from Goulburn, Griffith and Western Sydney forums. These are the similarities and differences between these communities. (Plenary discussion)	Lead Facilitator	Priorities Newcastle Includes priorities from othe Western Sydney, Griffith, Goulburn)
11:35am – 11:45am (10 mins)	The regulatory environment Jemena operates in	Overview of the rules under which Jemena must operate, and how these impact on some decisions and approaches. Questions of clarification from participants	Chris	Speaker notes
11:45am – 12:15pm (30 mins)	Future of the Gas Network	Now we're going to hear from different people around different opinions. It's not a clear future. We want to understand these different responses – so it will help Jemena in the future. Let's start thinking about this futureLast week we introduced the topic of what the future may have in store QUESTIONS FROM LAST WEEK - we did have some questions about hydrogen. Here we will learn about the hydrogen process. This first video is from Colruyt Group – about Hydrogen being the fuel of the future. We are in a time of significant change – in many aspects of our lives technology is changing how we do things – and new technologies are changing the face of energy as well. RAISE YOUR HANDS IF YOU'VE HEARD OF ELON MUSK; RAISE YOUR HANDS IF YOU'D HEARD OF HIM 10 YEARS AGO. Tesla has become a household name in a very short space of time, and that's one example of the pace of change. The thing about change though, is that not everyone always agrees, and there is often a period of time where people discuss different views on how they think the future will be. In the future you might get your energy needs delivered to you in a very different way.	Lead Facilitator	Video: Future of Gas         Newcastle: Questions from         week         Colruyt Group - hydrogen         video - the fuel of the futur         https://www.youtube.com/w         ch?v=e3xKfyc iEU         Elon Musk (why he thinks         hydrogen is not a good idea         https://www.youtube.com/w         ch?v=yFPnT-DCBVs         Australian Technology         Association (talking about         Solar)         https://1drv.ms/v/s!Al08m3         wYOmB90LEH8aUqDXWMK



Time	Session	Content	Speaker	Equipment & Stimulus
		No one knows what the future will look like for gas, but many people have different views, here are a few different perspectives:		AEMO - the independent energy market operator –
		1. Elon Musk (why he thinks hydrogen is not a good idea):		investigating Hydrogen fue cell powered cars.
		2. Australian Technology Association (talking about Solar)		https://www.youtube.com/v ch?v=FFa1jLHP-Fg
		3. AEMO - the independent energy market operator – investigating Hydrogen fuel cell powered cars.		
		What do you think of these? Have a discussion at your tables about this. Any questions? What did your discussion reveal?		
12:15pm –	Prioritisation	Group discussion with priorities for the future template and textas.	Lead Facilitator	Priorities for the future
12:35pm of Future (20 mins)	of Future	Last week we looked at customer priorities for their energy supply, we thought about whether or not price was more important than safety and reliability and so on.		template A3 sheet - 4 priorities per sheet. Group ranks priorities 1 to 4 on the laminated sheet. IF there is time, ask the group to move to one side of the
		As we start to delve into these themes a bit further we want to look at what customer priorities are for the longer term, let's say 2050.		
		Not all of the things we are prioritising for the future are trade-offs – many of these things might be possible, but if we understand what customer preferences are we can make better decisions		
		What are your priorities for the future?		room for one position and other for the opposing
		1. Reducing the cost of energy for all customers - It's often hard to know whether changes will increase or decrease prices. We have talked to you a little about ways we can reduce costs, by delaying maintenance and renewals, for example. What we want to understand is how important for customers – as a whole, for everyone – that the cost of energy is reduced?		position, and facilitate a for/against discussion (ligh heartedly)
		2. Zero Carbon energy for all of Australia - The government promised to reduce emissions by between 26 and 28 per cent by 2030 as part of the Paris climate change accord agreed in November last year. Jemena, like every other business, needs to do its bit to achieve this goal. Do you agree this is an important priority for Australia?		
	4	3. Individuals meeting their own energy needs - Do you think that people becoming more self-sufficient and meeting their own energy needs is the way of the future? Like solar and batteries or even at home bio-gas solutions?		

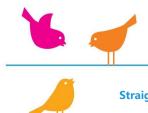
Time	Session	Content	Speaker	Equipment & Stimulus
		4. Reducing our need for energy (energy efficiency) - The cleanest energy of all is the energy you don't have to produce or deliver. Should reducing our energy consumption be a priority for the future?		
		Group discussion:		
		Having multiple sources of fuel in your house - If you went all electric and had no gas, then an electricity outage would affect all your appliances. If you had gas, you could still have cooking, heating and hot water. Is this important to you?		
		Come back to plenary for discussion around why you've prioritised these.		
		What other information would help you understand the future of the gas network?		
12:35pm – 1:05pm (30 mins)	Lunch	Catering supplied by the venue		
1:05pm – 1:15pm	Fairness	We briefly talked about the topic of Fairness in Forum 1. Do you recall the discussion around Equality and Equity? Refer to templates on the tables.	Lead Facilitator	Note group will have participant booklets
(10 mins)		Play Video – from St Vincent de Paul		Participant Booklets - each
		We are going to divide into 6 tables and each table will get a question to answer. As there are 6 tables, the same question will be asked on 2 tables each – 3 questions in total.		question has a space for table facilitator and participants to write their responses.
		There is also some background provided to the question. These questions are about fairness		Rotating tables
		and we're asking you to think deeply about these topics at your tables. Please write your thoughts in your booklets, or your table facilitator will also be capturing the discussion.		Pens
		After the groups spend 15 minutes on one question, the group then move to the next table.		Video: Fairness (from St
		Note: if less participants, divide into pairs or threes and discuss answers together		Vincent De Paul speaker)
		Then each group will nominate a spokesperson (or the facilitator) to present back to the room the group's views.		
1:15pm –	Fairness –	DEPRECIATION	Chris Stewart &	Pre-written questions - bookle
1:30pm (15 mins)	Round 1		Jacqueline Nalder	Participant Workshop Booklet Forum 2 v2.00



Time	Session	Content	Speaker	Equipment & Stimulus
		QUESTION: With the uncertainty about whether our pipes will actually be used beyond 2050, would it be fairer for current customers to pay more for new investments we make on the network relative to future customers?		Report back
		Scribe to capture tally of yes, no, unsure responses for each group		
1:30pm – 1:45pm (15 mins)	Fairness – Round 2	CAPITAL CONTRIBUTIONS QUESTION: Would it be fairer for all new customers to contribute to the cost of a new gas connection, when in the past most haven't had to contribute? Scribe to capture tally of yes, no, unsure responses for each group	Caroline McGeechan & Stephen Angel	Participant Workshop Book Forum 2 v2.00 Report back
1:45pm 2pm (15 mins)	Fairness – Round 3	<ul> <li>GAS PRESSURE</li> <li>QUESTION: Is it fair that the pressure in the network is lower in some areas than others meaning some customers can't use modern gas appliances (specifically instantaneous hot water)?</li> <li>Scribe to capture tally of yes, no, unsure responses for each group</li> </ul>	Kate Hawke & Jasmin Wu	Participant Workshop Book Forum 2 v2.00 Report back
2pm – 2:30pm (30 mins)	Group consensus	<ul> <li>Plenary discussion - present back results from tallies</li> <li>What did you learn? (allow 6 min per group)</li> <li>Group prioritisation – attempt to get group agreement on prioritisation of these topics</li> <li>If group cannot agree, this is okay</li> <li>What more information do you think you need in order to answer fairness questions better?</li> </ul>	Team	
2:30pm – 2:45pm (15 mins)	Afternoon tea	Working afternoon tea		
2:45pm – 3:15pm (30 mins)	Network	Explanation of the Jemena Gas Network, explaining gas pressure (refer to speaker notes) Present the A3 network map of Newcastle to the area. This map represents the age of the gas network pipes and the different colours represents the different ages of the network. Jemena representative to talk through what each of the parts of the map means, and what the different colours mean	Kate to talk through network Lead Facilitator to facilitate questions	Network map of Newcastle Sticky dots Group discussion and reflection



Time	Session	Content	Speaker	Equipment & Stimulus
		Place your dot on the map – the dot represents where you live. Turn to the person next to you and discuss – then share back as a group. Where does your house sit on the map? What does it mean for you?		
3.15pm – 3:25pm (10 mins)	Wrap up and close	Thank you We would really love it if a couple of you, if you are interested, would agree to work with us on preparing materials for the next session? It would involve reviewing written materials and probably a couple of phone calls? Would anyone be interested in that? Look ahead to next session and what will be covered Stipends to be paid at the end of session 2 Discuss and ask if they are prepared to come back on the 25 August. Is there anyone who is not able to attend? Participants depart	Lead Facilitator	<ul> <li>3 Brochures from Jemena to give out - gas vision. Energy networks</li> <li>TA gas pre for Jeme5.ppx</li> <li>Feedback forms</li> <li>Sign in sheets for Stipend collection - participants will need to sign to receive</li> <li>Yes, I'm available to come back</li> <li>- indicate on sign in sheet.</li> <li>Collate feedback forms</li> </ul>
3.30pm – 4pm (30 mins)	Team to stay behind	Debrief		





## **RUNSHEET: FORUM 2**

Project:	Jemena Gas Network - Phase 2 eng	agement					
Workshop:	Western Sydney deliberative forum	2: household cu	Video:	YES			
Details:				-			
Date:	Saturday 2 <sup>nd</sup> June 2018	Time:	Session: 10:30am - 3:30pm Debrief: 3.30pm – 4:15pm	Duration:	5 hours		
Venue:	Linden Room, Parramatta RSL Club, Cnr of O'Connell St & Macquarie St, PARRAMATTA (02) 8865 5100	Team Members:	Nicola Wass, Straight Talk (Lead Facilitator) Phoebe Schumacher, RPS Group (Project support) Kate Hawke, Customer Engagement Manager: Price Review, Jemena Ana Dijanosic, Projects Manager: Regulatory & Commercial, Jemena Alan Hume, Network IT Regulatory Submission Manager, Jemena Kristy Yip, Gas Connections Manager, Jemena				
Guests:	The Hon Nick Greiner, Member of the Board of SGSPAA Albert Tse, Member of the Board of SGSPAA		Jan Peric, GM Pipeline Markets, Jemena Cameron Dorse, EGM IT, Jemena Kat Thornton, Customer Operations Manager, Jemena Usman Saadat, General Manager: Regulation, Jemena Thea Bray, Public Interest Advocacy Centre				

Workshop purpose	Reconnect with each other
	Refresh about deliberation, mini public and group consensus decision making
	Confirm there is a third forum and participants willingness to participate
	Provide answers to customer questions from Forum 1
	Provide more information about the four key areas of focus
	<ul> <li>Inform customers about the choices that materially impact the Access Arrangement</li> </ul>
	<ul> <li>Explain the choices that need to be made under the themes price and reliability, price path, fairness and the future of gas</li> </ul>
	Agree priorities for engagement in forum 3

Time	Session	Content	Speaker	Equipment & Stimulus
9:00am- 10.30am (30 mins)	Room set up Morning tea on arrival	Organise tables and chairs, set up, check catering Orientation for table facilitators 9.30am	N/A	Video and television Laptop Chairs tables Sign in sheet
10.30am	Welcome and introductions	Acknowledgement of Country Introduce each member of the team and their roles/responsibilities Our second meeting. Re introduce the ground rules	Lead Facilitator + team	N/A
10.40am	Why we are here?	Welcome the participants back Show personal bias video - Recap on forum 1 and the rules of engagement. Debrief – what have you learned? - Lots of changes since last time.	Lead Facilitator – Nicola Wass	Personal bias video – MindTools (see lin below) Show confirmation bias video (optional) <u>https://youtu.be/tkbU8pNiwG4</u>



Time	Session	Content	Speaker	Equipment & Stimulus
		<ul> <li>Note for Nicola: Softer introduction to next session commitment.</li> </ul>		
		Have you enjoyed this process? If so, we would love you to come back, on Saturday <b>SEPTEMBER 8</b> , to explore some options for how Jemena could action the feedback that they have been giving.		
		Please consider your willingness to participate in this forum - and receive another incentive of \$175.		
		We are finding real value in developing expertise within a small group of people and working deeply with them.		
		This is an interactive process, will need to test the outcomes of this session, welcome to participants, welcome to participants in September.		
10:40am – 10:45am	Trust	Do you trust Jemena? On a scale of 1-5, write down on a post-it your degree of trust in Jemena, with 1 being 'not at all' and 5 being 'absolutely.' Is there a difference from before? Y/N.	Lead Facilitator – Nicola Wass	Post-its Pens Scribes to set up speed dating chairs whilst thi is happening
10.45am- 11.15am	What did you learn? Speed dating exercise Groups to theme, clump and	<ul> <li>Did you talk to people since last time, what did they think of Jemena and gas? Or perhaps you looked at the videos and resources we suggested?</li> <li>Pair up in two rows facing each other. Each participant 'speed dates' and answers the following questions. After each question - 4 minutes each, one row rotates to the next person.</li> <li>Interview 3 other people.</li> <li>Be interviewed by 3 others</li> </ul>	Lead Facilitator – Nicola Wass	Notebooks Pens Pre written booklet - questions with instruction and space for notes. Butchers paper (if needed) Post-it notes (if needed) Instructions for speed dating with the question



Time	Session	Content	Speaker	Equipment & Stimulus
12 mins	Plenary discussion	1. What have you learnt, either last week or from the resources, that seems important to you?		2.0 Participant Workshop Booklet – Forum 2.1 Speed dating description
		2. What do other people think about gas, gas pricing and the future of gas?		
4 mins – collect		3. Today we are going to explore fairness, the future of gas, pricing and reliability and the price path - which of these is most important to you? Why?		Price path – bill smoothing
4 mins - plenary		Group reports back on each question		
11.15am- 11.30am	Answering questions	Last time you asked a number of questions, some of which we will answer now, and others which we will cover off in later sessions.	Ana to cover speaking to	2.2 Frequently Asked Questions - Western Sydney
	•	(that don't relate to themesPlease note that any questions on 'sustainability' and 'the future of gas' will be answered in the future of energy session.	this content	Speaker notes
				2.3 Attachment 1_A Gas bill demystified
		Estimated meter readings	Lead facilitator to facilitate	2.4 Benchmarking graphic
		Our investment in RQD, our investment generally, and passing on		2.6 Gas usage
			The role of retailers	questions if needed.
		Educating customers on the use of gas	needed.	
11.40am what yo		Costs and impacts of costs		Lead facilitator to facilitate questions if neede
		Jemena's call centre		
	Recap on	Review of forum 1 prioritisations.	Lead	2.7 Priorities all v.200
	what you prioritised	What you told us last time was that for <b>price, safety and reliability</b> were important?	Facilitator	Western Codern 2 toking and arise was
		What have you reflected on about this?		Western Sydney: 2 tables said price was important
		We talked about the pressures of the cost of living and some of		2 tables said safety was important
		you identified that gas and electricity were significant and others less so. For example, last week, 2 tables said price was important,		Reliability receive less votes across the tables b was still important (eq, the votes were 2, 3, 1, 2



Time	Session	Content	Speaker	Equipment & Stimulus
		and 2 tables said safety was important Are these priorities reflective of what you said?		WE didn't come to an agreement on this, lots of inconsistencies across the group. All agreed that aesthetics wasn't important.
		If we did this exercise again, how would your priorities be different? (Plenary)		See how this compares with Goulburn and Griffith. for example fairness was slightly higher in Griffith.
11.40am - 12noon	The regulatory environment Jemena operates in	The purpose of this session is to provide an overview of the rules under which Jemena must operate, and how these impact on some decisions and approaches Questions of clarification	Usman	Speaker notes Discussion
12 noon- 12.10pm	Explore the theme of	This afternoon, we want to talk to you about the topic of FAIRNESS.	Lead Facilitator	2.8 Models for fairness (picture of kids at sport, market justice vs social justice)
	Fairness - introduction	The aim of this session is to provide information that customers		2.9 Video: Fairness
		asked for that relates to fairness. Many of the decisions we make affect how fair things are, particularly around issues of who pays and how.		(Gavin Duffy, speaking from St Vincent De Paul)
		There are many regulatory rules which tell us what we can and can't do.		
		We'd like you to help us understand what you believe is fair. What does this group believe is fair? We know from last week that this question is too big, so we have split it into four different ways to look at fairness.		
		You also asked last week for some examples of fairness - on your table there is a diagram showing three kids at a sports game.		
		The diagram shows that EQUALITY - treating everyone the same - doesn't necessarily mean FAIR: EQUITY is about making sure everyone has access and that may mean different things for different people. We also have a table which tries to demonstrate a Market Justice versus Social Justice model.		



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Time	Session	Content	Speaker	Equipment & Stimulus
		We want you to think about what fair means for customers of Jemena, customers using gas.		
		We are starting to consider 4 different topic areas and what they mean.		
		We are going to divide into 4 tables, and each table will get a question to answer. There is also some background provided to the question.		
		After the groups spend 10 minutes on one question, the group then move to the next table.		
		Note: if less participants, divide into pairs or threes and discuss answers together.		
		Then each group will nominate a spokesperson (or the facilitator) to present back to the room the group's views.		
		Introduce questions and topic areas.		
12.10pm-		DEPRECIATION	Usman	Pre-written questions - booklet - p 3
12.20pm		QUESTION 1: With the uncertainty about whether our pipes will		2.0 Participant Workshop Booklet – Forun
		actually be used beyond 2050, would it be fairer for current customers to pay more for new investments we make on the		2.1 Questions only for screen
		network relative to future customers?		Each question has a space for table facilitato
		BACKGROUND: Many of our gas assets – particularly the gas pipes		and participants to write their responses.
		- won't deteriorate for around 50. They are made of long-lasting		
		plastic. However, there is uncertainty about whether people will actually use gas in 50 years from now. Therefore, we are		Rotating tables
		considering whether to recover the cost of new investment in gas		Textas
	pipes faster than we have in the past – for example 30 years instead of 50 years. This would mean that bills would rise over the		Butchers paper (if needed)	
	next 30 years – around \$7 per annum on average over the next 30		Report back	
		years. The alternative is that we wait until some point in the future		
		when we are clearer about whether the assets aren't going to be		
		used if that turns out to be the case, and only then move to a faster recovery. This would prove to be the right decision where		



Time	Session	Content	Speaker	Equipment & Stimulus
		the pipes did end up being needed beyond 30 years, because we wouldn't need to move to that faster recovery charging the additional \$7. However, if they end up being not used, this might result in future customers receiving a more significant price increase as we move closer that time, because we need to rush the recovery into a shorter period. If this was 10 years, we estimate an additional increase of \$20 per annum over those 10 years to cover the catch-up. With the different impacts on current and future customers, thinking on behalf of the community and both current and future generations, what is fairest way of addressing this uncertainty in whether our pipes will be used into the future in terms of how we recover our investment costs?		
		ANALOGY IF REQUIRED: To use an analogy, imagine you own a hotel and just spent \$30,000 on a new renovation. This is a major investment for you. To pay for this, you intend to increase the price of a room by \$7 per night over the next 10 years. Doing your calculations, you think this should recover the cost of this \$30,000 investment. However imagine you suddenly receive information from the Government is considering introducing a new tax on hotels, 7 years from now, that might drive you out of business. Your calculations banked on your hotel business operating for at least 10 years. But that's now not clear anymore. What would you do? Hedge your bets by increasing the price of your rooms even more than \$7 to speed up the recovery of the \$30,000 investment over the next 7 years? This will impact current customers. Or would you not increase your prices by more than the \$7 for now, and wait until the Government had made a decision, one way or another. The risk is that if the Government did follow-through with the ban, you would have to act quickly and increase the cost of your rooms by an additional \$20 over a short period of time to ensure you recovered your \$30,000 investment. This would impact those future customers. What's fair?		
12.20pm- 12.30pm		CAPITAL CONTRIBUTIONS	Kate	2.0 Participant Workshop Booklet – Forum 2



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Time	Session	Content	Speaker	Equipment & Stimulus
		QUESTION 2: Would it be fairer for all new customers to contribute to the cost of a new gas connection, when in the past most haven't had to contribute?		
		BACKGROUND: Around 45,000 new customers connect to the gas network each year. They might be developers who have built new homes, or customers who had all electric appliances but now want gas because they want gas cooking, hot water or heating. This is a good thing for existing customers because it means the cost of our large fixed investments – the \$3 billion of pipes and other equipment already installed – will then be shared amongst more customers in future. This means lower prices for everyone. However, in some cases, a customers can be quite expensive to connect because they might be in an isolated location. This might require us to install a longer more costly pipe, or use expensive excavation equipment to install the pipe. While this new customer would share in paying the cost of our large fixed investments – which is a good thing for all customers – this can be outweighed by the additional large cost they put on everyone else to connect them to the network. We ask them to pay the difference upfront to connect to the network.		
		However, going forward, we are looking at changing our approach. We are looking at charging all new customers – not just the more costly ones – to connect to the network. This is because we are less confident about how long our customers will use the gas network. In the past, we were confident the gas connections would last over 30 years. Now, we are not so sure. So we want to recover the cost quicker. We may charge all customers an upfront connection fee. Is this fair?		
12.30 – 1.00pm	LUNCH			
1pm-1.10pm		VULNERABLE CUSTOMERS	Alan	2.0 Participant Workshop Booklet – Forum 2



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Time	Session	Content	Speaker	Equipment & Stimulus
		QUESTION 3: Is it fair that everyone pays a little bit more to help fund programs led by Jemena to assist vulnerable gas customers?		
		BACKGROUND: Currently, support for vulnerable gas customers (those having significant difficulty paying their gas bill) is generally limited to programs run by gas retailers and the NSW Government. All gas retailers in NSW have programs to help customers in financial difficulty manage their bills more effectively via hardship programs. Energy Accounts Payment Assistance (or EAPA) is a NSW Government Scheme designed to help people who are having trouble paying their gas bill because of a crisis or emergency situation. The Scheme is aimed at helping people in these situations to stay connected. The \$50 EAPA vouchers are distributed to gas (and electricity) customers by a range of community welfare organisations such as St Vincent's de Paul. If you are in financial hardship due to a crisis or emergency situation you can apply for EAPA voucher assistance. The question for Jemena is whether we – as your gas distributor – also have a role in helping customers manage their bills, beyond just keeping a close watch on our 37% of the bill. We don't currently invest in programs to specifically support vulnerable customers. However we could look at targeted ways to supplement what the retailers and Government do. This would come at a cost, and this cost would be recovered from all customers. Roughly, every \$1 million we put towards these sort of programs would add around \$1 to your annual gas bills.		
1.10 -1.20pm		GAS PRESSURE QUESTION 4: Is it fair that the pressure in the network is lower in some areas than others meaning some customers can't use modern gas appliances (specifically instantaneous hot water)?	Ana	2.0 Participant Workshop Booklet – Forum
		BACKGROUND In some of the older parts of our network—like Kensington in Sydney and Goulburn in regional NSW—we can't supply gas at the same pressure as in the newer parts of the network. For customers in their older network areas, this means that many can't use modern gas appliances like instantaneous gas		



Time	Session	Content	Speaker	Equipment & Stimulus
		hot water systems. Is it fair that some customers do not receive the same level of service than other customers? We could upgrade older parts of the network to a more modern standard – but that would meant a slight increase in bills for everyone.		
		ANALOGY: Our approach to managing the gas pressure is a bit like travelling with your children in the car. Dad turns down the aircon on a hot day because it costs more in petrol. Previously he would adjust the air con to provide 23 degrees in the car, but he now increases the air con at 25 degrees. Dad knows that around 28 degrees the kids become irritable and will start to complain. He also knows there are added risks as it might take longer for the car to cool at 25 degrees. To avoid this he continually monitors the car temperature gauge. We also want to reduce our costs to lower bills, we have effectively increased the car temperature as it is similar to how we monitor pressure in the network. We don't think there will be impact on customers but we don't know because we've never changed the temperature to risk the potential impact. However, we have now started to do this. What do you think about this?		
1.20pm- 1.40pm (10mins)		Plenary - present back - what did you learn? (allow 4 min per group)	Facilitators to present back	Phoebe to take notes on laptop
(10mins)		What more information do you think you need in order to answer fairness questions better?	Lead facilitator	
1:40pm – 1.50pm (10mins)	Explore the theme of Future of the Gas Network	We introduced hydrogen last week and started talking about it. We'd like to give you some more information on this. QUESTIONS FROM LAST FORUM + PLAY HYDROGEN VIDEO Kate to discuss questions from last week.	Lead Facilitator	Video: Hydrogen: the fuel of the future (Colruyt Group) https://www.youtube.com/watch?v=e3xKfyc
		In the future you might get your energy needs delivered to you in a very different way. No one knows what the future will look like for gas, but many people have different views.		2.10 Priorities for the future template



Time	Session	Content	Speaker	Equipment & Stimulus
		Last week we saw very different views from Elon Musk of Tesla, Dean Lombard from ATA, AEMO and Jemena. Here is another viewpoint:		2.11 Video: Future of Energy (Andrew Dillon – Energy Networks Association)
		Play Video: The Future of Energy		
		Reflect on what you heard		
		Plenary – key take outs.		
		What might this mean for Jemena?		
1.50-2.30pm (40mins)		Last week we also looked at customer priorities for their energy supply, we thought about whether or not price was more important than safety and reliability and so on.	Lead facilitator	As a table - number the priorities from 1 to 4 of the A3 sheet using a marker.
		As we start to delve into these themes a bit further we want to look at what customer priorities are for the longer term, let's say 2050		Discuss – must prioritise. If there is time, ask the group to move to one side of the room for one position and the othe for the opposing position, and facilitate a
		Not all of the things we are prioritising for the future are trade- offs – many of these things might be possible, but if we understand what customer preferences are we can make better decisions		for/against discussion (light heartedly)
		What are your priorities for the future?		
		1. Reducing the cost of energy for all customers - It's often hard to know whether changes will increase or decrease prices. We have talked to you a little about ways we can reduce costs, by delaying maintenance and renewals, for example. What we want to understand is how important for customers – as a whole, for everyone – that the cost of energy is reduced?		
		2. Zero Carbon energy for all of Australia - The government promised to reduce emissions by between 26 and 28 per cent by 2030 as part of the Paris climate change accord agreed in November last year. Jemena, like every other business, needs to do its bit to achieve this goal. Do you agree this is an important priority for Australia?		



Time	Session	Content	Speaker	Equipment & Stimulus
		3. Individuals meeting their own energy needs - Do you think that people becoming more self-sufficient and meeting their own energy needs is the way of the future? Like solar and batteries or even at home bio-gas solutions?		
		4. Self sufficiency – Taking care of your own energy needs and reducing the need for large scale infrastructure, this could be solar and batteries or even your own bio gas.		
		Come back to plenary for discussion around why you've prioritised these.		Discuss
		• FINAL QUESTION: Having multiple sources of fuel in your house – if you went all electric and had no gas, then an electricity outage would affect all your appliances. If you had gas, you could still have cooking, heating and hot water. Is this important to you?		Discuss
		What other information would help you understand the future of the gas network? This will help us for forum three		
2.30pm - 2.50pm (suggest 20mins)	Explore the theme of Price and Reliability	Play video and introduce Many of the decisions we make are a trade-off between price and reliability. Given the uncertainty over the future we have been reviewing our current practices to make sure we get the balance	Kate to introduce topic	2.12 Price and reliability template 2.13 Video: Price and reliability (Oliver Derum – Energy Consumers Australia)
		right between keeping costs down and ensure we meet the needs of the future.	Lead Facilitator to	Table activity:
		Here are a couple of changes we are proposing, explain each one and the consequences, which of these do you think we should do more of or less of:	facilitate activity and questions	Templates with scale for each table to identif where they think the priorities are - A3 as a table.
		• Reduce the pressure in the network (costs and reliability goes	questions	Whole group activity:
		down): e.g. so your pasta doesn't cook as fast, but your bills are less		Plenary discussion on each issue
		<ul> <li>Defer upgrade works (costs and reliability go down), for example, your bills are less, but the gas is not as reliable.</li> </ul>		Prompt questions, for example - why do you think that? Explore each.



Time	Session	Content	Speaker	Equipment & Stimulus
		• Upgrade works effect everybody. Is it fair that everyone's costs go down, but some people (on the edge of the network) wear the impact of loss of reliability?		
		Discussion: Are there other things you think Jemena should be doing more of or less of?		
		What additional information would help you to answer questions about the trade-offs of price and reliability? This information will help us for session 3.		Laptop- phoebe to take notes
2:50 – 3pm	Afternoon tea	Working afternoon tea		
3pm-3.20pm	Prioritisation of engagement	Of all the topics discussed today, what do you think are the most important for customers? We want to come back and work on practical examples of how we can reflect customer priorities - what should we focus on?	Lead Facilitator	2.14 Prioritisation of engagement laminate Post it notes
		If no time, write your number one priority on a post it note and Straight Talk will collect.		
		At your table, discuss.		
		Plenary discussion - identify key themes.		
		This will help inform us for session 3.		
3.20pm –	Wrap up and	Thank you	Lead	3 Brochures from Jemena
3:30pm	close	We would really love it if a couple of you, if you are interested,	Facilitator	Energy networks
		would agree to work with us on preparing materials for the next session? It would involve reviewing written materials and probably a couple of phone calls? Would anyone be interested in that?		Feedback forms
		Look ahead to next session and what will be covered		Sign in sheets for Stipend collection - participants will need to sign to receive
		Stipends to be paid at the end of session 2 – participants to sign for stipend.		Yes, I'm available to come back - indicate on sign in sheet.
				Collate feedback forms



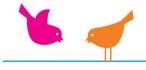
Time	Session	Content	Speaker	Equipment & Stimulus
		Discuss, and ask if they are prepared to come back on the 8 September. Is there anyone who is not able to attend? Participants depart		
3.30pm – 4:15pm	Team to stay behind	Debrief	Team	

#### Video questions (for Phoebe – interviews at lunch break and end of day, with Marcus):

What have you found out about gas that you didn't know before?

What have you found interesting?

What have you learnt?





# RUNSHEET: FORUM 2

Project:	Jemena Gas Network - Ph	Jemena Gas Network - Phase 2 engagement				
Workshop:	Bathurst deliberative foru	Bathurst deliberative forum 2: household customers				
Details:						
Date:	Saturday 30 <sup>th</sup> June 2018	Time:	9.30am-10am – briefing 10:30am - 3:30pm Debrief: 3.40pm – 4pm	Duration:	5 hours	
Venue:	The Rydges, Mt Panorama, 1 Conrod Straight, Bathurst x 4 tables total (3 for discussion activities)	Team Member:		alk (support) nager Regulation, Jemena ervices Manager, Jemena Project Manager, Jemena Regulatory Analysis and Strat ng and Communications Adv		

#### Workshop purpose

- Reconnect with each other
- Refresh about deliberation, mini public and group consensus decision making



Confirm there is a third forum and participants willingness to participate
Provide answers to customer questions from Forum 1
Provide more information about the four key areas of focus
Inform customers about the choices that materially impact the Access Arrangement
• Explain the choices that need to be made under the themes price and reliability, price path, fairness and the future of
gas
Agree priorities for engagement in forum 3

Time	Session	Content	Speaker	Equipment & Stimulu
9:30am-	Room set up	Organise tables and chairs, set up, check catering	N/A	Video
10am		Orientation for table facilitators 9.30am		Chairs tables
(30 mins)				Sign in sheet
10am –	Morning Tea on arrival	Team briefing	Lead Facilitator	Runsheet
10:30am		Introduce each member of the team and their roles / responsibilities		Speaker Notes
(30 mins)		Morning Tea		Notepads + Pens
10:30am –	Welcome and	Welcome the participants back	Lead Facilitator	N/A
10:40am (10 mins)	introductions	Acknowledgement of Country	Team	
(10 111115)		Housekeeping		
		Who is in the room?		
10:40am –	Why we are here?	Recap on forum 1 and the rules of engagement, respect for each other	Lead Facilitator	N/A
10:50am (10 mins)		Have you enjoyed this process?		
(10 mms)		Confirm we would like to come back, on <b>SEPTEMBER 22</b> , to explore some options for how Jemena could action the feedback that they have been giving.		



Time	Session	Content	Speaker	Equipment & Stimulus
		Please consider your willingness to participate in this forum - \$175 each - as we are finding real value in developing expertise within a small group of people and working deeply with them.		
10:50am – 11:05am (15 mins)	What did you learn? Small Group exercise	<ul> <li>Did you talk to people since last time, what did they think of Jemena and gas? Or perhaps you looked at the videos and resources we suggested?</li> <li>Split into 3 groups, and change the groups for each question</li> <li>Questions: <ol> <li>What have you learnt, either last week or from the resources, that seems important to you?</li> <li>What do other people think about gas, gas pricing and the future of gas?</li> <li>Today we are going to explore fairness, the future of gas, pricing and reliability and the price path - which of these is most important to you?</li> </ol> </li> </ul>	Lead Facilitator	Notebooks & Pens Participant Workshop Bookle Forum 2 Bathurst
11:05am – 11:20am (15 mins)	Answering questions (that don't relate to themes below)	Last time you asked a number of questions, some of which we will answer now, and others which we will cover off in later sessions. We have collected the top 5 questions from Forum 1. Please note the question on the future of gas will be answered in the future of energy session.	Usman Lead Facilitator	<ul> <li>FAQs Bathurst: Top 5 questions</li> <li>Handout: All Questions</li> <li>Bill explanation sheets - see speaker notes</li> <li>Attachment 1_A Gas bill demystified</li> <li>Bench marking graph</li> <li>Our costs</li> <li>Gas usage</li> </ul>
11:20am – 11:40am (10 mins)	Recap on what you prioritised	Review of forum 1 prioritisations. What you told us last time was that <b>Price and reliability</b> were important. Next most important on the list are <b>fairness and safety.</b>	Lead Facilitator	Priorities Bathurst Includes priorities from othe Western Sydney, Griffith,



Time	Session	Content	Speaker	Equipment & Stimulus
		No one rated aesthetics as important. We also discussed environment and customer service, but these were also down the list of priorities.		Goulburn, West Syd, Newcastle)
		Is this reflective of what you said?		Show votes on screen if
		We also have the results here from Goulburn, Griffith, Western Sydney and Newcastle forums. These are the similarities and differences between these communities – for example pricing was agreed as a priority for all.		needed – on excel spreadshe
		(Plenary discussion)		
11:35am – 11:45am	The regulatory environment Jemena	Overview of the rules under which Jemena must operate, and how these impact on some decisions and approaches.	Usman	Speaker notes
(10 mins)	operates in	Questions of clarification from participants		
11:45am – 12:15pm (30 mins) 12:15pm – 12:20pm	Your local gas network Quick break – if needed	<ul> <li>Explanation of the Jemena Gas Network, explaining gas pressure (refer to speaker notes)</li> <li>Present the A3 network map of Bathurst to the area. This map represents the age of the gas network pipes and the different colours represents the different ages of the network. Jemena representative to talk through what each of the parts of the map means, and what the different colours mean</li> <li>Place your dot on the map – the dot represents where you live.</li> <li>Turn to the person next to you and discuss – then share back as a group. Where does your house sit on the map? What does it mean for you?</li> </ul>	James Lead Facilitator to facilitate questions	Network map of Bathurst Sticky dots Group discussion and reflection
(5 mins)				
12:20pm – 12:50pm (30 mins)	Future of the Gas Network	Now we're going to hear from different people around different opinions. It's not a clear future. We want to understand these different responses – so it will help Jemena in the future. Let's start thinking about this futureLast week we introduced the topic of what the future may have in store	Lead Facilitator	Video: Future of Gas Bathurst: Questions from last week Colruyt Group - hydrogen video – the fuel of the future



Time	Session	Content	Speaker	Equipment & Stimulus
		QUESTIONS FROM LAST WEEK we did have some questions about hydrogen. Here we will learn about the hydrogen process. This first video is from Colruyt Group – about Hydrogen being the fuel of the future.		https://www.youtube.com/ ch?v=e3xKfyc_iEU Elon Musk (why he thinks
		We are in a time of significant change – in many aspects of our lives technology is changing how we do things – and new technologies are changing the face of energy as well. RAISE YOUR HANDS IF YOU'VE HEARD OF ELON MUSK; RAISE YOUR HANDS IF YOU'D HEARD OF HIM 10 YEARS AGO.		hydrogen is not a good ide https://www.youtube.com/ ch?v=yFPnT-DCBVs
		Tesla has become a household name in a very short space of time, and that's one example of the pace of change. The thing about change though, is that not everyone always agrees, and there is often a period of time where people discuss different views on how they think the future will be.		Australian Technology Association (talking about Solar) <u>https://1drv.ms/v/s!Al08m</u>
		In the future you might get your energy needs delivered to you in a very different way.		wYOmB9oLEH8aUqDXW AEMO - the independent
		No one knows what the future will look like for gas, but many people have different views, here are a few different perspectives:		energy market operator – investigating Hydrogen fu cell powered cars.
		1. Elon Musk (why he thinks hydrogen is not a good idea):		https://www.youtube.com
		2. Australian Technology Association (talking about Solar)		<u>ch?v=FFa1jLHP-Fg</u>
		3. AEMO - the independent energy market operator – investigating Hydrogen fuel cell powered cars.		
		What do you think of these? Have a discussion at your tables about this. Any questions? What did your discussion reveal?		
12:50pm –	Prioritisation of Future	Group discussion with priorities for the future template and textas.	Lead Facilitator	Priorities for the future
1:10pm (20 mins)		Last week we looked at customer priorities for their energy supply, we thought about whether or not price was more important than safety and reliability and so on.		template A3 sheet - 4 priorities per sheet.
		As we start to delve into these themes a bit further we want to look at what customer priorities are for the longer term, let's say 2050.		Group ranks priorities 1 to on the laminated sheet.
	4			IF there is time, ask the gi to move to one side of th room for one position an



Time	Session	Content	Speaker	Equipment & Stimulus
		Not all of the things we are prioritising for the future are trade-offs – many of these things might be possible, but if we understand what customer preferences are we can make better decisions		other for the opposing position, and facilitate a for/against discussion (ligl
		What are your priorities for the future?		heartedly)
		1. Reducing the cost of energy for all customers - It's often hard to know whether changes will increase or decrease prices. We have talked to you a little about ways we can reduce costs, by delaying maintenance and renewals, for example. What we want to understand is how important for customers – as a whole, for everyone – that the cost of energy is reduced?		If no time, continuum line
		2. Zero Carbon energy for all of Australia - The government promised to reduce emissions by between 26 and 28 per cent by 2030 as part of the Paris climate change accord agreed in November last year. Jemena, like every other business, needs to do its bit to achieve this goal. Do you agree this is an important priority for Australia?		
		3. Individuals meeting their own energy needs - Do you think that people becoming more self-sufficient and meeting their own energy needs is the way of the future? Like solar and batteries or even at home bio-gas solutions?		
		4. Reducing our need for energy (energy efficiency) - The cleanest energy of all is the energy you don't have to produce or deliver. Should reducing our energy consumption be a priority for the future?		
		Group discussion:		
		Having multiple sources of fuel in your house - If you went all electric and had no gas, then an electricity outage would affect all your appliances. If you had gas, you could still have cooking, heating and hot water. Is this important to you?		
		Come back to plenary for discussion around why you've prioritised these.		
		What other information would help you understand the future of the gas network?		
1:10pm – 1:35pm	Lunch	Catering supplied by the venue		
(25 mins)				



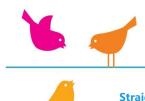
Time	Session	Content	Speaker	Equipment & Stimulus
1:35pm – 1:45pm	Fairness	We briefly talked about the topic of Fairness in Forum 1. Do you recall the discussion around Equality and Equity? Refer to templates on the tables.	Lead Facilitator	Participant Workshop Booklet Forum 2 Bathurst
(10 mins)		Play Video – from St Vincent de Paul		Rotating tables
		We are going to divide into 6 tables and each table will get a question to answer. As there are 6 tables, the same question will be asked on 2 tables each – 3 questions in total.		Pens Video: Fairness (from St Vincent De Paul speaker)
		There is also some background provided to the question. These questions are about fairness and we're asking you to think deeply about these topics at your tables. Please write your thoughts in your booklets, or your table facilitator will also be capturing the discussion.		,
		After the groups spend 15 minutes on one question, the group then move to the next table.		
		Note: if less participants, divide into pairs or threes and discuss answers together		
		Then each group will nominate a spokesperson (or the facilitator) to present back to the room the group's views.		
1:45pm –	Fairness – Round 1	DEPRECIATION	Sandeep & Usman	Pre-written questions - booklet
2pm (15 mins)		QUESTION: With the uncertainty about whether our pipes will actually be used beyond 2050, would it be fairer for current customers to pay more for new		Participant Workshop Booklet Forum 2 Bathurst
		investments we make on the network relative to future customers?		Report back
		Refer to Speaker Notes		
		Scribe to capture tally of yes, no, unsure responses for each group		
2pm –	Fairness – Round 2	CAPITAL CONTRIBUTIONS	Matt & Jacqueline	Participant Workshop Booklet Forum 2 Bathurst
2:15pm (15 mins)		QUESTION: Would it be fairer for all new customers to contribute to the cost of a new gas connection, when in the past most haven't had to contribute?		Report back
		Refer to Speaker Notes		
		Scribe to capture tally of yes, no, unsure responses for each group		



Time	Session	Content	Speaker	Equipment & Stimulus
2:15pm – 2:30pm (15 mins)	Fairness – Round 3	<ul> <li>GAS PRESSURE</li> <li>QUESTION: Is it fair that the pressure in the network is lower in some areas than others meaning some customers can't use modern gas appliances (specifically instantaneous hot water)?</li> <li>Refer to Speaker Notes</li> <li>Scribe to capture tally of yes, no, unsure responses for each group</li> </ul>	James & Syed	Participant Workshop Bookle Forum 2 Bathurst Report back
2:30pm – 3pm (30 mins)	Group consensus	<ul> <li>Plenary discussion - present back results from tallies</li> <li>What did you learn? (allow 6 min per group)</li> <li>Group prioritisation – attempt to get group agreement on prioritisation of these topics</li> <li>If group cannot agree, this is okay</li> <li>What more information do you think you need in order to answer fairness questions better?</li> </ul>	Team	
3pm – 3:15pm (15 mins)	Afternoon tea	Working afternoon tea		
3.15pm – 3:25pm (10 mins)	Wrap up and close	<ul> <li>Thank you</li> <li>We would really love it if a couple of you, if you are interested, would agree to work with us on preparing materials for the next session? It would involve reviewing written materials and probably a couple of phone calls? Would anyone be interested in that?</li> <li>Look ahead to next session and what will be covered</li> <li>Stipends to be paid at the end of session 2</li> <li>Discuss and ask if they are prepared to come back on the 25 August. Is there anyone who is not able to attend?</li> </ul>	Lead Facilitator	<ul> <li>3 Brochures from Jemena to give out - gas vision. Energy networks</li> <li>ATA gas pre for Jeme5.ppx</li> <li>Feedback forms</li> <li>Sign in sheets for Stipend collection - participants will need to sign to receive</li> <li>Yes, I'm available to come ba - indicate on sign in sheet.</li> </ul>

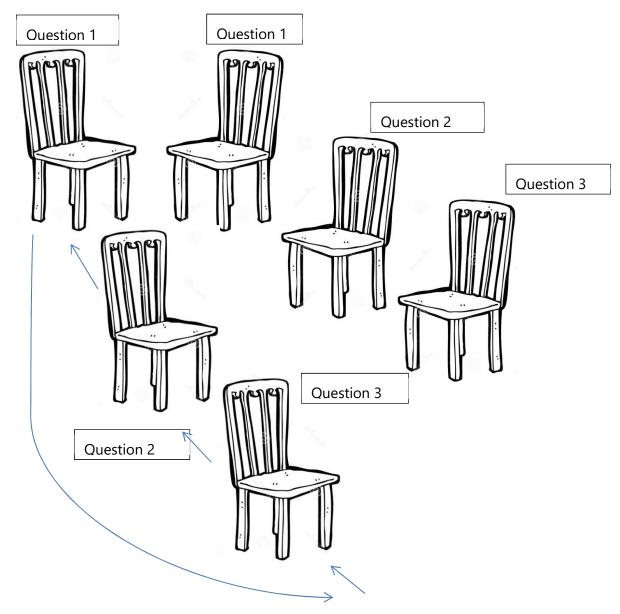


Time	Session	Content	Speaker	Equipment & Stimulus
3.30pm – 4pm (30 mins)	Team to stay behind	Debrief		





#### Jemena Workbook - Forum 2



#### Speed dating setup and directions:

Participants interview each other - one side first, then after 1 or 2 minutes, they swap

One set of chairs stay where they are; those opposite move one place to either the right or left. One side asks their question of their opposite side and after 2 minutes they swap

After each person has answered each question, everyone on the moving side moves again

Participants take notes of their answers and, once everyone has rotated so they are back in their original seats, all the question 1's combine to synthesise what they heard that was the same, and what was different. They transcribe this onto butchers paper.



### **SPEED DATING QUESTIONS!**

**QUESTION 1:** What have you learnt, either last week or from the resources, that seems important to you?



QUESTION 2: What do other people think about gas, gas pricing and the future of gas?



QUESTION 3: Today we are going to explore fairness, the future of gas, pricing and reliability and the price path - which of these is most important to you? Why?



### QUESTION 1: WITH THE UNCERTAINTY ABOUT WHETHER OUR PIPES WILL ACTUALLY BE USED BEYOND 2050, WOULD IT BE FAIRER FOR CURRENT CUSTOMERS TO PAY MORE FOR NEW INVESTMENTS WE MAKE ON THE NETWORK RELATIVE TO FUTURE CUSTOMERS?

BACKGROUND: Many of our gas assets – particularly the gas pipes – won't deteriorate for around 50 to 80 years. They are made of long-lasting plastic. However, there is uncertainty about whether people will actually use gas in 50, let alone 80, years from now. Therefore, we are considering whether to recover the cost of new investment in gas pipes faster than we have in the past – for example 30 years instead of 50 years. This would mean that bills would rise over the next 30 years – around \$7 per annum on average over the next 30 years. The alternative is that we wait until some point in the future when we are clearer about whether the assets aren't going to be used, if that turns out to be the case, and only then move to a faster recovery. This would prove to be the right decision where the pipes did end up being needed beyond 30 years, because we wouldn't need to move to that faster recovery.

However, if they end up being not used, this might result in future customers receiving a more significant price increase as we move closer that time, because we need to rush the recovery and into a shorter period. If this was 10 years, we estimate an increase over those 10 years. With the different impacts on current and future customers, thinking on behalf of the community and both current and future generations, what is fairest way of addressing this uncertainty in whether our pipes will be used into the future in terms of how we recover our investment costs?



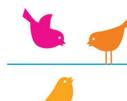
# QUESTION 2: WOULD IT BE FAIRER FOR NEW CUSTOMERS TO CONTRIBUTE TO THE COST OF THEIR CONNECTION, WHEN IN THE PAST THEY HAVEN'T HAD TO CONTRIBUTE?

BACKGROUND: Around 45,000 new customers connect to the gas network each year. They might be developers who have built new homes, or customers who had all electric appliances but now want gas because they want gas cooking, hot water or heating. This is a good thing for existing customers because it means the cost of our large fixed investments – the \$3 billion of pipes and other equipment already installed – will then be shared amongst more customers in future. This means lower prices for everyone. However, in some cases, a customer can be quite expensive to connect because they might be in an isolated location.

This might require us to install a longer, more costly pipe, or use expensive excavation equipment to install the pipe. While this new customer would share in paying the cost of our large fixed investments – which is a good thing for all customers – this can be outweighed by the additional large cost they put on everyone else to connect them to the network. We ask them to pay the difference upfront to connect to the network.

However, going forward, we are looking at changing our approach. We are looking at charging all new customers – not just the more costly ones – to connect to the network. This is because we are less confident about how long our customers will use the gas network. In the past, we were confident the gas connections would last over 30 years. Now, we are not so sure. So we want to recover the cost quicker. We may charge all customers an upfront connection fee. Is this fair?

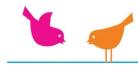
Write your thoughts here:



#### QUESTION 3: IS IT FAIR THAT EVERYONE PAYS A LITTLE BIT MORE TO HELP FUND PROGRAMS LED BY JEMENA TO ASSIST VULNERABLE GAS CUSTOMERS?

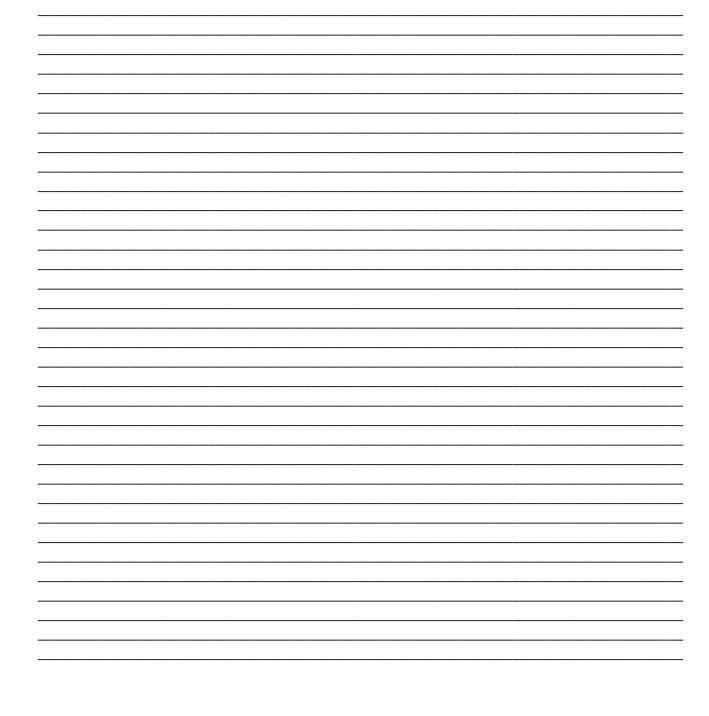
BACKGROUND: Currently, support for vulnerable gas customers (those having significant difficulty paying their gas bill) is generally limited to programs run by gas retailers and the NSW Government. All gas retailers in NSW have programs to help customers in financial difficulty manage their bills more effectively via hardship programs. Energy Accounts Payment Assistance (or EAPA) is a NSW Government Scheme designed to help people who are having trouble paying their gas bill because of a crisis or emergency situation. The Scheme is aimed at helping people in these situations to stay connected. The \$50 EAPA vouchers are distributed to gas (and electricity) customers by a range of community welfare organisations such as St Vincents de Paul. If you are in financial hardship due to a crisis or emergency situation you can apply for EAPA voucher assistance.

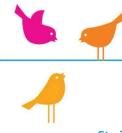
The question for Jemena is whether we – as your gas distributor – also have a role in helping customers manage their bills, beyond just keeping a close watch on our 37% of the bill. We don't currently invest in programs to specifically support vulnerable customers. However we could look at



targeted ways to supplement what the retailers and Government do. This would come at a cost, and this cost would be recovered from all customers. Roughly, every \$1 million we put towards these sort of programs would add around \$1 to your annual gas bills.

Write your thoughts here:



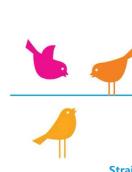


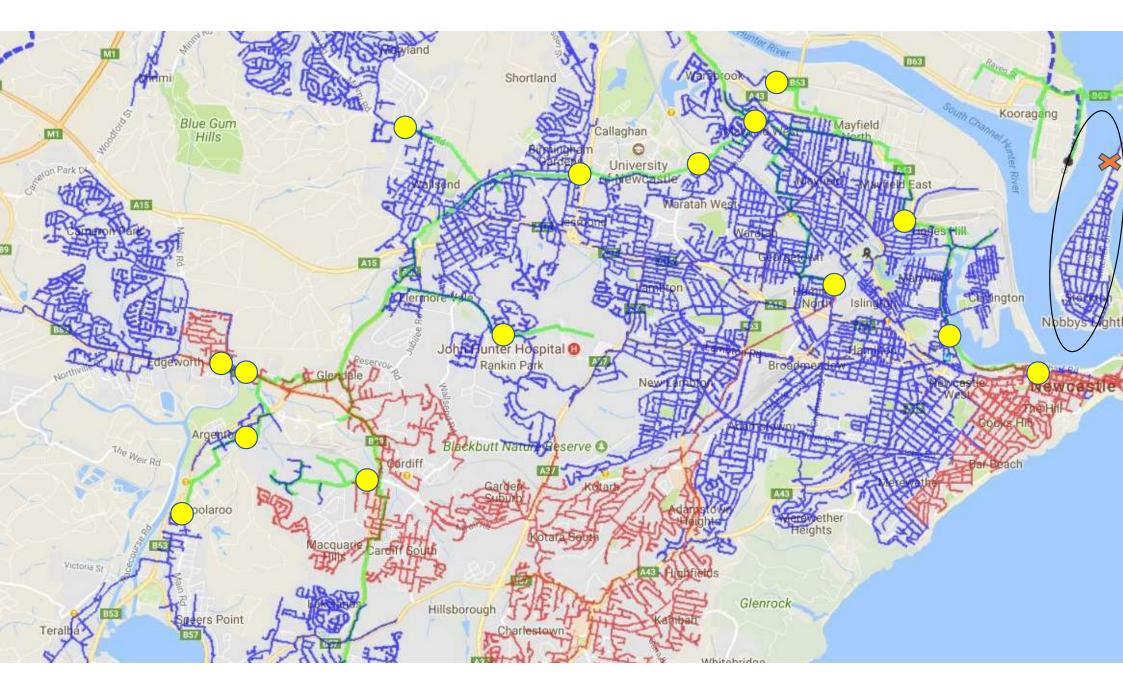
### QUESTION 4: IS IT FAIR THAT THE PRESSURE IN THE NETWORK IS LOWER IN SOME AREAS THAN OTHERS MEANING SOME CUSTOMERS CAN'T USE MODERN GAS APPLIANCES (SPECIFICALLY INSTANTANEOUS HOT WATER)?

BACKGROUND In some of the older parts of our network—like Kensington in Sydney and Goulburn in regional NSW—we can't supply gas at the same pressure as in the newer parts of the network. For customers in their older network areas, this means that many can't use modern gas appliances like instantaneous gas hot water systems. Is it fair that some customers do not receive the same level of service than other customers? We could upgrade older parts of the network to a more modern standard – but that would meant a slight increase in bills for everyone. Write your thoughts here:













### **Explore the theme of Price and Reliability!**

Here are a couple of changes we are proposing. Please rate each one according to the scale below as a group, according to which of these you think we should do more of (10) or less of (0):

#### Reduce the pressure in the network (costs and reliability goes down): eg so your pasta doesn't cook as fast, but your bills are less

(do nothing - reduce pressure)

(put all resources into it - increase)

0	1	2	3	4	5	6	7	8	9	10

#### Defer upgrade works (costs and reliability go down), for example, your bills are less, but the gas is not as reliable.

(Defer upgrade works)

(Do upgrade works)

0	1	2	3	4	5	6	7	8	9	10

## Upgrade works effect everybody. Is it fair that everyone's costs go down, but some people (for example, on the edge of the network) wear the impact of loss of reliability?

(not fair for all)

(extremely fair for everyone)

0	1	2	3	4	5	6	7	8	9	10

#### Question: Are there other things you think Jemena should be doing more of or less of?

#### Write your thoughts here:

Member of RPS Group Plc



# The future of gas networks

Some thoughts from the Alternative Technology Association



Alternative Technology Association May 2018 www.ata.org.au

# **Household Fuel Choice**



Technological changes in heating, hot water, and cooking appliances mean that consumers' understanding of the economics of different fuels may be out of date.

*Increasing fuel prices make the cost outcomes more significant.* 

Accurate information on the economics of gas and electricity as household fuels for new appliances will help consumers make informed decisions about appliance replacement, and inform public policy.

The household fuel choice project was funded by Energy Consumers Australia as part of its grants process for consumer advocacy projects and research projects for the benefit of consumers of electricity and natural gas. The views expressed in this presentation do not necessarily reflect the views of ECA.

# Which fuel is cheapest?



When replacing an end-of-life gas appliance (heater, hot water, stove/cooker), what's the economic benefit (or cost) of:

- choosing electric rather than gas?
- also replacing other gas appliances with electric equivalents?
- and how does having (or installing) solar PV help?

reverse-cycle aircon vs. gas wall furnace + portables (or ducted) heat pump hot water vs. gas instantaneous (or storage) induction cooktop/elec. oven vs. gas cooktop/gas oven

Alternative Technology Association

# **The Methodology**



## 5 different household types:

- 1. Couple, frugal, small house
- 2. Medium family, consistent daytime usage, medium house
- 3. Medium family, low daytime usage, medium house
- 4. Large family, large house
- 5. Large family, large new (6-star) house

## Based on detailed usage profiles





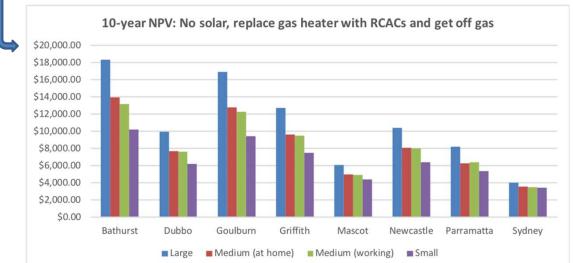
Detailed heating, cooling, appliance load, and solar generation models



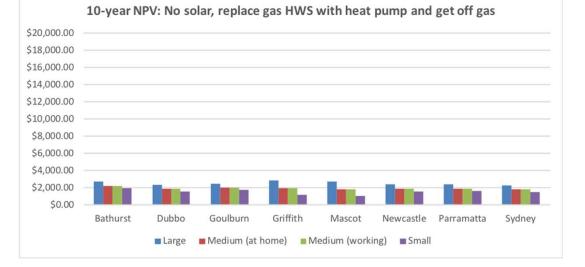
Alternative Technology Association

## This is the financial benefit over ten years of switching from gas to electric

## Homes with only one gas appliance



**Sydney** = CBD and environs. **Mascot**  $\cong$  rest of Central Sydney. **Parramatta**  $\cong$  Western Sydney





### Heating -> electric

Between \$3,500 and \$14,000 better off over ten years for medium-sized households

## ONE GAS APPLIANCE

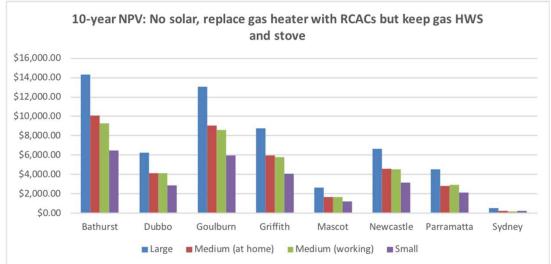
Always worth switching to electric and end the gas fixed charge.



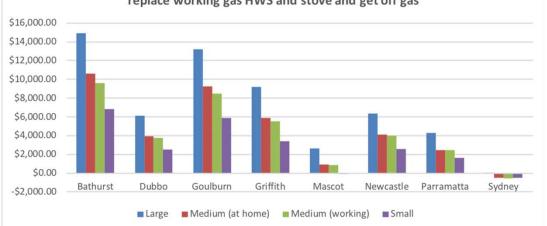
*Hot water -> electric* Between \$1,000 and \$2,500 better off over ten years



## Homes with three gas appliances



**Sydney** = CBD and environs. **Mascot**  $\cong$  rest of Central Sydney. **Parramatta**  $\cong$  Western Sydney



10-year NPV: Existing 2.5kW solar, replace gas heater with RCACs, also replace working gas HWS and stove and get off gas





### HEATING when you have other gas appliances

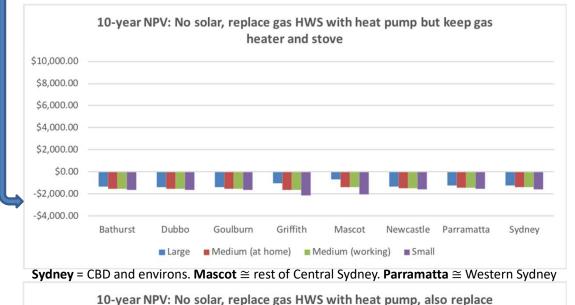
•Usually worth switching to electric (RCACs) even if you keep other gas appliances (barely worth it in inner Sydney)

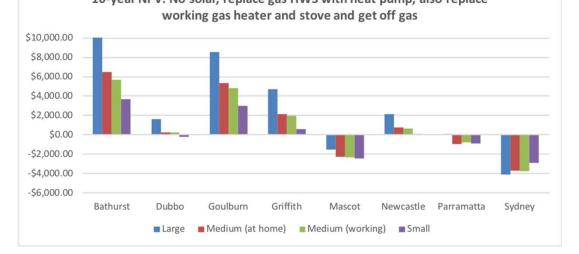
•If you *also* switch other gas appliances, still a good outcome (marginally better or worse depending where you are; not worth it in inner Sydney)

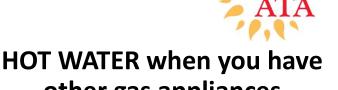
A BIT BETTER IF YOU HAVE SOLAR

Negative \$ means it will cost more over ten years if you switch from gas to electric

## Homes with three gas appliances







 other gas appliances
 Not worth switching to electric if you keep other gas appliances (unless you also install a large solar system)

•But if you *also* switch other gas appliances and go all-electric, it's worth it in some places (Bathurst, Goulburn, Griffith, Newcastle, large households in Dubbo) but still not in others (Sydney, smaller households in Dubbo) *A BIT BETTER IF YOU HAVE* 

SOLAR

## **New homes**

\$14,000

\$12,000

\$10,000

\$8,000

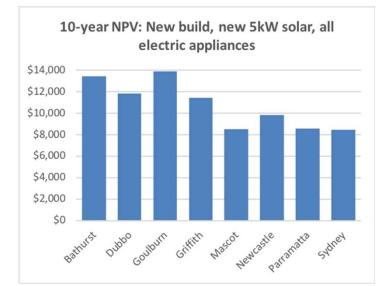
\$6,000

\$4,000 \$2,000

\$0

Bathurst





## With solar

It's a no-brainer to go all-electric



### Without solar Why?!? But still a better choice to go all-electric in most places (less so in

central Sydney)

Dubbo Couldurn Crittin Mascot Newcostle Paranat

10-year NPV: New build, no solar, all

electric appliances



sydne



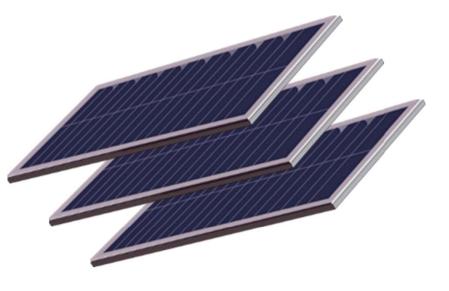


## **Other details**



**SOLAR:** Having solar increases the benefit of switching to electric, especially HWS (improves value across the board).

Putting a new solar system on at the same time as appliance replacement always makes a switch to all-electric worth it.





**COOKERS:** Makes little difference unless switching allows you to disconnect from gas and avoid the fixed charge. (So if a stove is your only gas appliance, it's always worth switching to an electric induction stove (with electric oven).

Alternative Technology Association

# What does it mean?



- Increasingly, RCACs will replace gas heating for most people
- Environmentally conscious people will switch off gas earlier than others
- For the rest, the shift to electric hot water and cooking more likely to accompany big solar installations or major renovations
  - Bottled gas may be used for cooking in some households
- Gas will probably remain a luxury fuel for a few

## For the energy system:

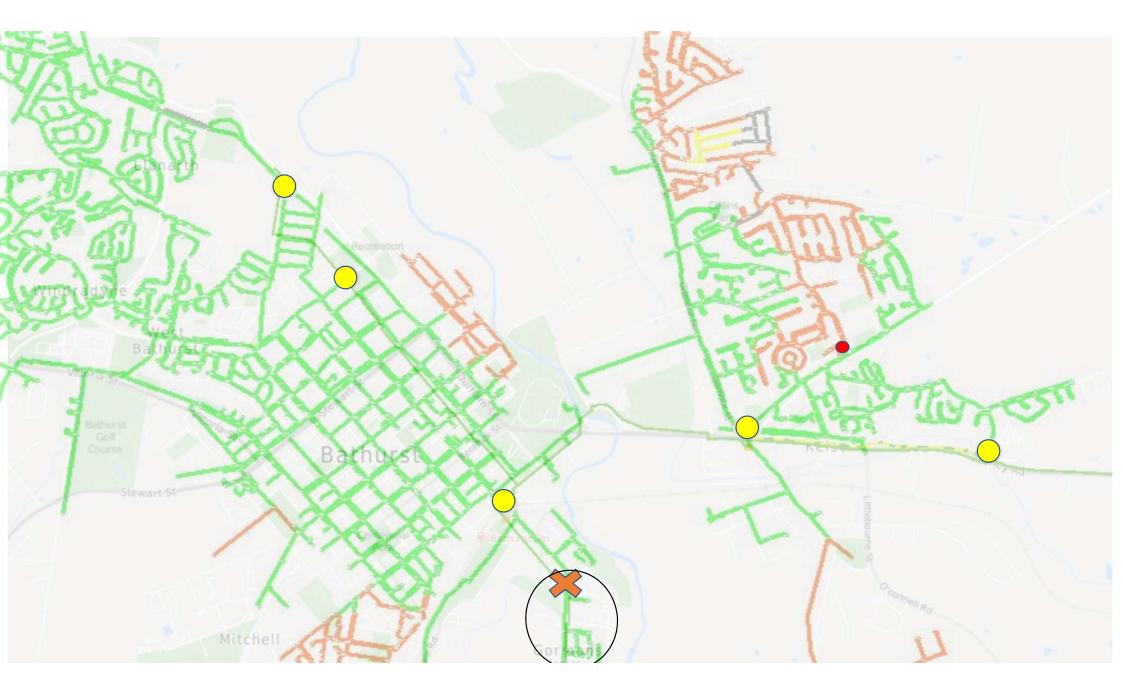
- Many industrial processes can be served by electricity rather than gas, and this will be cheaper as industry installs on-site generation
- Some processes require combustion, still needing natural gas or an alternative combustible fuel (e.g. hydrogen)
- Mains gas networks may remain to mostly serve these industries and (at higher prices) households prepared to pay a significant premium for gas





# THE ALTERNATIVE TECHNOLOGY ASSOCIATION

Helping Australians live sustainably in their homes and communities since 1980 www.ata.org.au







# POST EVENT FEEDBACK FORM

Event	Deliberative Forum Newcastle					
Date	Saturday 23 June					
Venue	The King Street Room, NEX – Newcastle Exhibition and Convention Centre					
	309 King St, Newcastle West NSW 2302					
Time	10.30am-3.30pm					

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
The workshop timing was appropriate	1	2	3	4	5
The venue was appropriate	1	2	3	4	5
The workshop objectives were clearly stated	1	2	3	4	5
The facilitator presented clearly and logically	1	2	3	4	5
The workshop content was interesting	1	2	3	4	5
The facilitator allowed me and others to have a say	1	2	3	4	5
There were opportunities for me to participate in an engaging and appropriate way	1	2	3	4	5

Do you have any suggestions about how the workshop could have been improved?

What did you value most about today's workshop?

Do you have any other comments about Jemena and household gas?

Thank you for your feedback. Please return this sheet at the end of the workshop. Member of RPS Group Plc