

Energy
Networks
Australia

Customer Perceptions and Customer Engagement Frameworks

John Bradley, CEO
API Summer School
February 2017

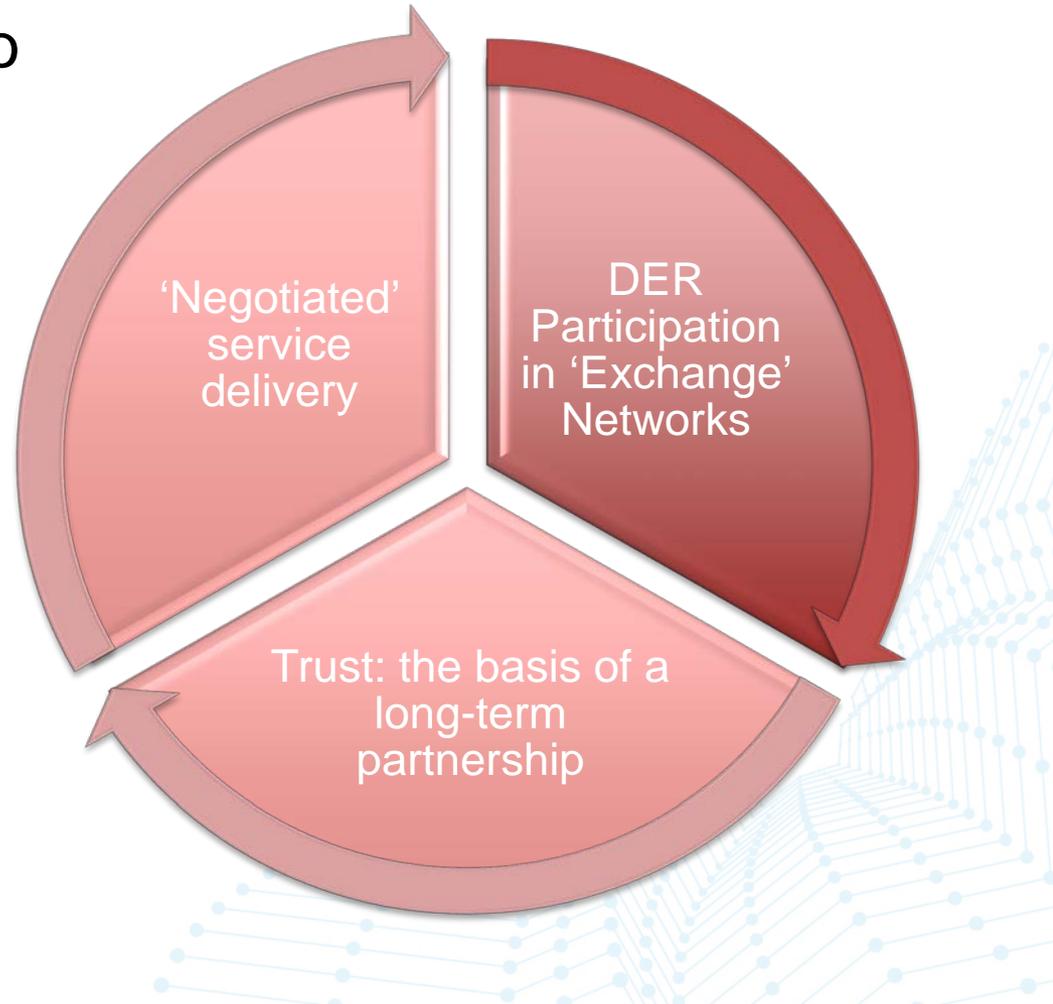
Standing with Customers

- **Interest in Energy is High**
 - but understanding limited and no real interest in 'learning' more
- **Value for Money is a key Driver**
 - But satisfaction is lower here
- **Reliability & Security is a strength**
- **Other important attributes –**
 - Perception network is run efficiently
 - Considers the needs of local community
- **Enabling & supporting shift to renewables is an opportunity**
 - Underrecognised but strong interest



Statements of the (new) Obvious

- Energy networks exist to serve their customer needs
- A Transforming Relationship :



Statements of the (new) Obvious

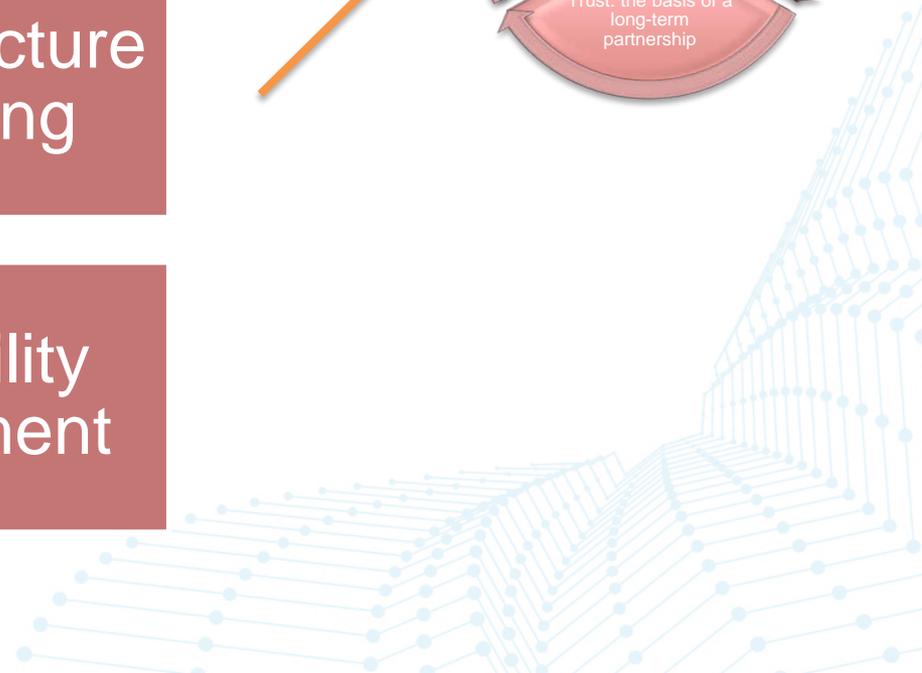
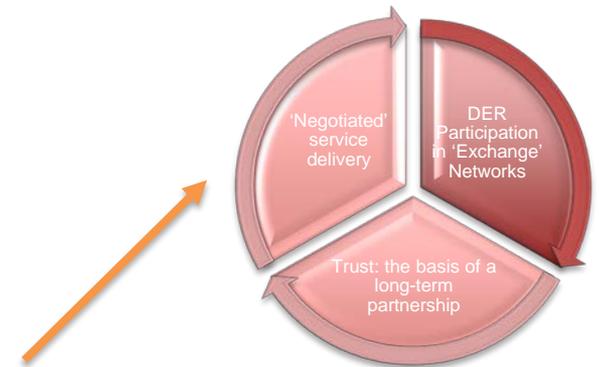
- Energy networks exist to serve their customer needs
- A Transforming Relationship :

Five year
business
plans

Infrastructure
Planning

Design of
Products and
Services

Reliability
Investment

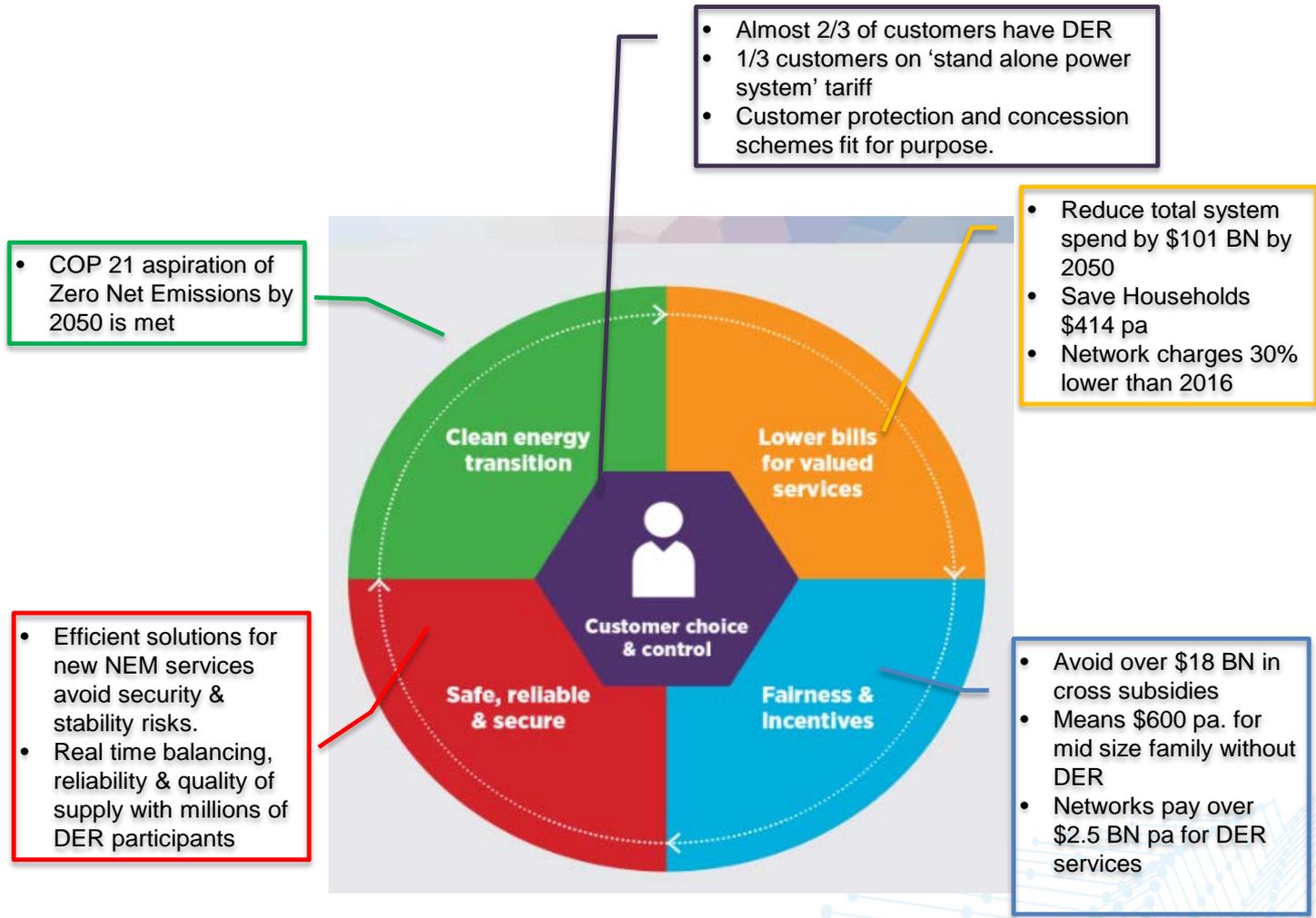


Energy Networks Australia & Customer Engagement Programs

- Customer Engagement Working Group – practitioners from across the gas and electricity network businesses
- Activities;
 1. Electricity Network Transformation Roadmap
 2. Customer Engagement Handbook
 3. Network Tariff Reform Handbook
 4. Hello Grid
www.hellogrid.com.au
- Engagement with customer advocates and representatives (ie ECA) and regulatory bodies



5 Customer Objectives at the Core of the Network Transformation Roadmap...



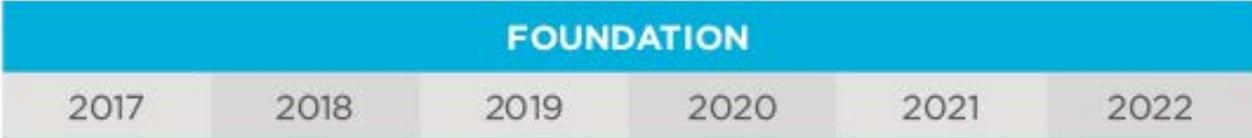
Overview of the Electricity Network Transformation Roadmap

	FOUNDATION						IMPLEMENTATION					
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2027+
 <p>CUSTOMER ORIENTED ELECTRICITY</p>	<p>Improve Trust with Customers</p> <ul style="list-style-type: none"> » Enhanced customer engagement and collaboration » Customised choices, better information on services and new connection and advisory services » Demonstrate investment reflects customer value while improving service performance and response times » Review of Consumer Protection and concessions 						<p>Networks provide a service platform</p> <ul style="list-style-type: none"> » Open network platforms embrace diverse customer needs and aspirations » Collaborate with customers and market actors to create new value with streamlined connections » Leverage network information and digital services for personalised innovation in a dynamic market 					
 <p>POWER SYSTEM SECURITY</p>	<p>New systems to support diverse generation</p> <ul style="list-style-type: none"> » Update Transmission Interconnection test » Review frameworks for protection systems, efficient capacity and balancing services » New market frameworks for ancillary services » Develop new power system forecasting and planning approaches to anticipate system constraints » Enhanced intelligence and decision making tools » Close focus on physical & cyber security 						<p>Harmonised System Operations at all levels</p> <ul style="list-style-type: none"> » Transmission networks support system stability with new services. » Distribution networks provide visibility of DER and potentially Frequency Control Ancillary Services (FCAS) and delegated balancing services. » Real-time communication and controls 					
 <p>CARBON ABATEMENT</p>	<p>A stable Carbon Policy for higher targets</p> <ul style="list-style-type: none"> » Develop nationally integrated carbon policy framework » Implement emissions Baseline & Credit Scheme » Set Light Vehicle emissions standard policy to provide incentives for electric vehicle uptake, supporting climate goals » Review Australia's emissions reduction target » Agile network connections and integration of large and small scale renewable technologies 						<p>Reviewing scope for greater efficiency</p> <ul style="list-style-type: none"> » Review technology specific incentive schemes to focus on least cost abatement » Review scope for more efficient economy wide carbon pricing where consensus » Review Australia's emissions reduction target (2027) 					
 <p>INCENTIVES & NETWORK REGULATION</p>	<p>Incentivising efficiency and innovation</p> <ul style="list-style-type: none"> » Ensure extensive smart meter penetration » Assign customers to new range of fairer demand-based network tariffs, with a choice to Opt Out » Enable standalone systems and micro-grids as a substitute for traditional delivery models » New innovation incentives in Regulation and Competition frameworks 						<p>Unlocking value of distributed energy resource orchestration</p> <ul style="list-style-type: none"> » Networks pay for distributed energy resource orchestration to provide system support in the 'right place at right time' » New network tariffs that provide beneficial incentives for standalone systems and micro-grids to stay connected to the grid » New and more adaptive regulatory approaches that are customer focused 					
 <p>INTELLIGENT NETWORKS & MARKETS</p>	<p>Essential information for an integrated grid</p> <ul style="list-style-type: none"> » Establish open standards and protocols to enable secure system operation, management and exchange of information and interoperability with distributed energy resources » Networks enhance current system monitoring and models to inform advanced system planning » Build distributed energy resource maps and feeder hosting analysis to support locational valuation of distributed energy based services 						<p>Networks optimised with distributed energy resources</p> <ul style="list-style-type: none"> » Active network management for technical stability, enabling distributed energy resource markets and efficient optimisation. » Networks provide a suite of grid intelligence and control architectures to animate distributed energy resource markets, as well as providing system security. » Establish a new network optimisation market to procure DER services for network support. » A flexible and agile workforce to support the new optimised energy system. 					

Overall Customer outcomes by	
2027	2050
<p>CUSTOMER CHOICE AND CONTROL</p> <ul style="list-style-type: none"> » Over 40% customers use onsite resources: 29 GW solar and 34 GWh of batteries. » Concessions to support those who need it most. » Almost 2/3 customers use onsite resources, including 1/3 customers on a new stand alone system tariff. 	
<p>LOWER BILLS FOR VALUED SERVICES</p> <ul style="list-style-type: none"> » Avoid over \$1.4 BN in network investment. » Average network bills 10% lower than 2016. » Total system spend is \$101BN lower to 2050. » Save households \$414 pa by 2050. » Network charges 30% lower than 2016. 	
<p>FAIRNESS & INCENTIVES</p> <ul style="list-style-type: none"> » Networks pay over \$1.1 BN pa for DER services. » Over \$1.4 BN in cross subsidies avoided, saving \$350 pa for med size family without DER. » Networks pay over \$2.5 BN pa for DER services. » Over \$18 BN in cross subsidies avoided, saving \$600 pa for med size family without DER. 	
<p>SAFETY, SECURITY, RELIABILITY</p> <ul style="list-style-type: none"> » Planned and efficient market response avoids security & stability risks. » Robust physical & cyber security management. » Real time balancing, reliability and quality of supply at small and large scale, with millions of market participants. 	
<p>CLEAN ENERGY TRANSITION</p> <ul style="list-style-type: none"> » Electricity sector carbon abatement to reach 40% by 2030 - greater than current national target of 26-28%. » Electricity sector achieves Zero Net Emissions by 2050. 	

Overview of the Electricity Network Transformation Roadmap

Strategic Pillar	Key Objectives	Key Initiatives	Key Performance Indicators
Customer Oriented Electricity	<ul style="list-style-type: none"> Improve Trust with Customers Enhanced customer engagement and collaboration Customised choices, better information on services and new connection and advisory services Demonstrate investment reflects customer value while improving service performance and response times Review of Consumer Protection and concessions 	<ul style="list-style-type: none"> Deliver a world class customer experience Improve service performance and response times Review of Consumer Protection and concessions 	<ul style="list-style-type: none"> Customer satisfaction score Service reliability Response time Complaints resolved
Efficient Electricity	<ul style="list-style-type: none"> Reduce System Operational Costs Optimise network operations and maintenance Improve asset performance and lifecycle management Reduce energy losses Improve network resilience and security 	<ul style="list-style-type: none"> Network System Operation of all levels Improve network resilience and security Optimise network operations and maintenance Improve asset performance and lifecycle management Reduce energy losses 	<ul style="list-style-type: none"> System operational costs Network reliability Asset performance Energy losses Network resilience
Secure Electricity	<ul style="list-style-type: none"> Ensure network resilience and security Improve network resilience and security 	<ul style="list-style-type: none"> Network System Operation of all levels Improve network resilience and security Optimise network operations and maintenance Improve asset performance and lifecycle management Reduce energy losses 	<ul style="list-style-type: none"> Network reliability Network security Network resilience Network security Network resilience
Green Electricity	<ul style="list-style-type: none"> Reduce carbon footprint Improve network resilience and security 	<ul style="list-style-type: none"> Network System Operation of all levels Improve network resilience and security Optimise network operations and maintenance Improve asset performance and lifecycle management Reduce energy losses 	<ul style="list-style-type: none"> Carbon footprint Network reliability Network security Network resilience Network security
Clear Energy Transition	<ul style="list-style-type: none"> Support clean energy transition Improve network resilience and security 	<ul style="list-style-type: none"> Network System Operation of all levels Improve network resilience and security Optimise network operations and maintenance Improve asset performance and lifecycle management Reduce energy losses 	<ul style="list-style-type: none"> Clean energy transition Network reliability Network security Network resilience Network security



CUSTOMER ORIENTED ELECTRICITY

Improve Trust with Customers

- » Enhanced customer engagement and collaboration
- » Customised choices, better information on services and new connection and advisory services
- » Demonstrate investment reflects customer value while improving service performance and response times
- » Review of Consumer Protection and concessions



Overview of the Electricity Network Transformation Roadmap

Strategic Pillar	Key Objectives	Key Initiatives	Key Outcomes
Customer Centricity	<ul style="list-style-type: none"> Enhance customer engagement and collaboration Customer choice, better information on services Enable open networks and energy services Improve service performance and response times Enable all customer engagement and capabilities 	<ul style="list-style-type: none"> Networks provide a service platform Customer choice and better information on services Open networks and energy services Improve service performance and response times Enable all customer engagement and capabilities 	<p>Customer Choice and Control</p> <ul style="list-style-type: none"> Customer choice and control Customer choice and control Customer choice and control Customer choice and control
Operational Resilience	<ul style="list-style-type: none"> Secure and reliable energy supply Resilient and secure energy supply Secure and reliable energy supply Resilient and secure energy supply 	<ul style="list-style-type: none"> Networks ensure a secure platform Secure and reliable energy supply Resilient and secure energy supply Secure and reliable energy supply 	<p>Lower Bills for Valued Services</p> <ul style="list-style-type: none"> Lower bills for valued services
Energy Efficiency	<ul style="list-style-type: none"> Reduce energy consumption Reduce energy consumption Reduce energy consumption Reduce energy consumption 	<ul style="list-style-type: none"> Networks ensure a secure platform Secure and reliable energy supply Resilient and secure energy supply Secure and reliable energy supply 	<p>Energy Efficiency</p> <ul style="list-style-type: none"> Energy efficiency Energy efficiency Energy efficiency Energy efficiency
Energy Security	<ul style="list-style-type: none"> Secure and reliable energy supply 	<ul style="list-style-type: none"> Networks ensure a secure platform Secure and reliable energy supply Resilient and secure energy supply Secure and reliable energy supply 	<p>Safety, Security, Reliability</p> <ul style="list-style-type: none"> Safety, security, reliability Safety, security, reliability Safety, security, reliability Safety, security, reliability
Energy Transition	<ul style="list-style-type: none"> Enable clean energy generation Enable clean energy generation Enable clean energy generation Enable clean energy generation 	<ul style="list-style-type: none"> Networks ensure a secure platform Secure and reliable energy supply Resilient and secure energy supply Secure and reliable energy supply 	<p>Clean Energy Transition</p> <ul style="list-style-type: none"> Clean energy transition Clean energy transition Clean energy transition Clean energy transition



Networks provide a service platform

- » Open network platforms embrace diverse customer needs and aspirations
- » Collaborate with customers and market actors to create new value with streamlined connections
- » Leverage network information and digital services for personalised innovation in a dynamic market

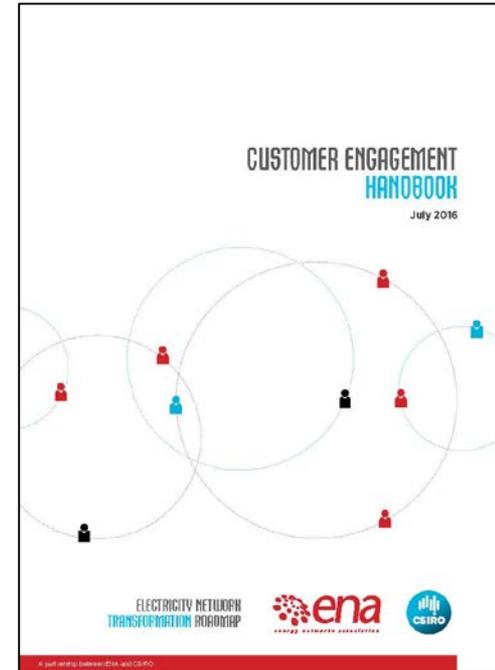
Customer Engagement Handbook

Goals

1. Provide **guidance to ENA member businesses** for customer engagement
2. Provide the opportunity for **continuous learning and evolution** of engagement activities
3. **Strengthen relationships** between energy networks, customers and consumer groups
4. **Support the use of performance measurement and indicator tools** in engagement activities
5. Leverage **opportunities for networks to collaborate** on customer engagement

Best Practice?

- Provides guidance on best practice BUT published at a point in time in current practice, best practice should evolve over time

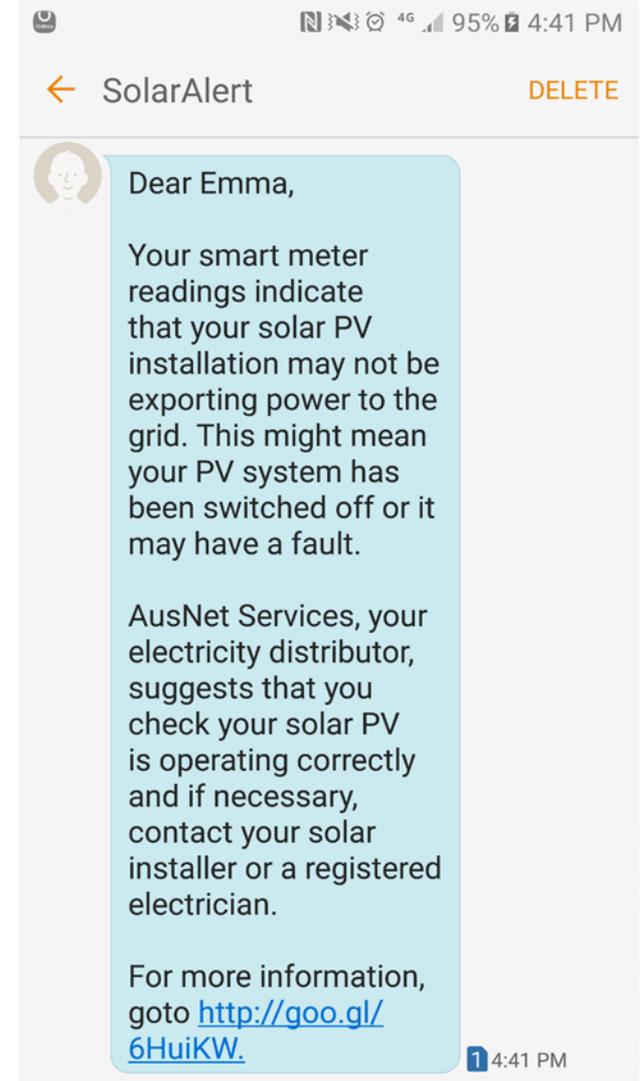


Engaging on what?

- **Reliability**
- **Planning**
- **Pricing**
- **Infrastructure**

In the future, will increasingly include:

- Consideration of demand management options
- Connections of embedded generation, energy storage and energy information
- Improved information on power supply and outages

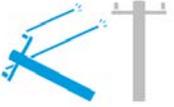


#Newystorm



Largest event to impact our network

 **369,000** homes and businesses affected

Power cut to half the Hunter and Central Coast 

 **275,000** calls  Crews called to **21,000** jobs

 **230,000** Facebook visitors  Website traffic  **800%**

 Facebook



Followers ↑
160% to 26,600 

7.7M  page impressions

24,000  comments

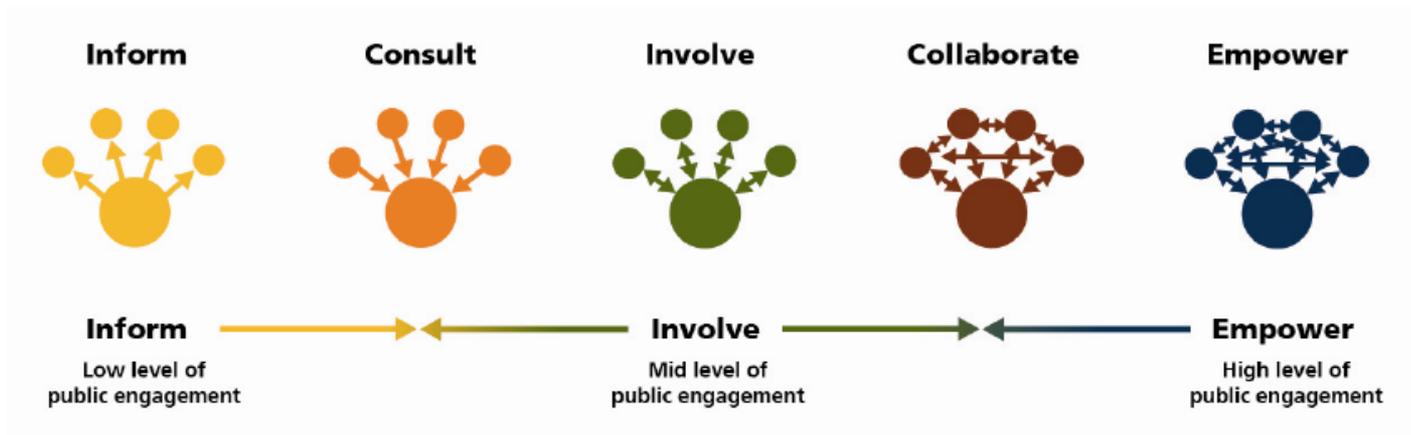
10,000 messages

- 366,000 clicks
- 30,000* likes
- 18,000* comments
- 6,000* shares



Effective customer engagement...

- Is a dialogue
- Aims to build mutual trust
- Is strategic and planned
- Recognises a scale of participation



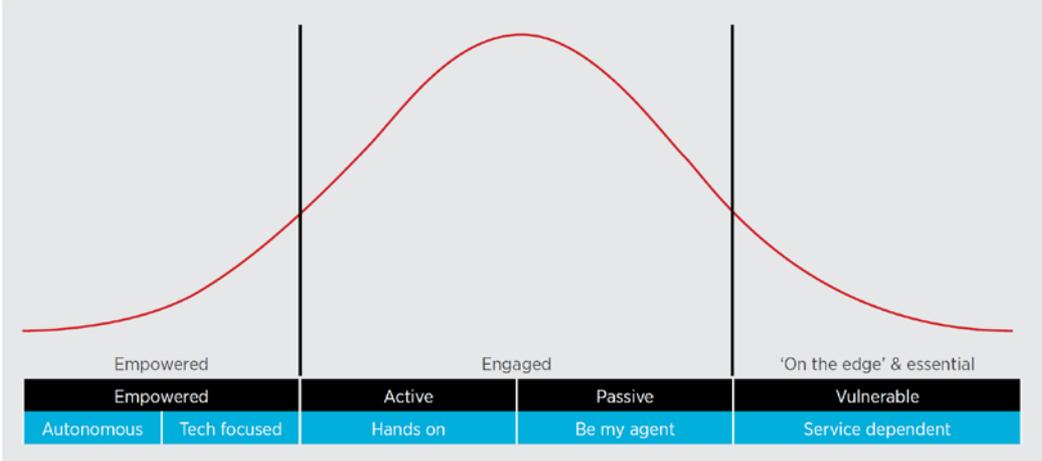
- Is conducted responsibly

Customer Diversity



Customer Diversity

Figure 2: Proposed market segmentation curve for residential customers



Source: Plausible 2025 customer segments were informed by an international literature review, commissioned expert papers and structured stakeholder workshops. In particular, Rosemary Sinclair of Energy Consumers Australia is acknowledged for employing the market curve device to graphically represent customer segments (adapted with permission).

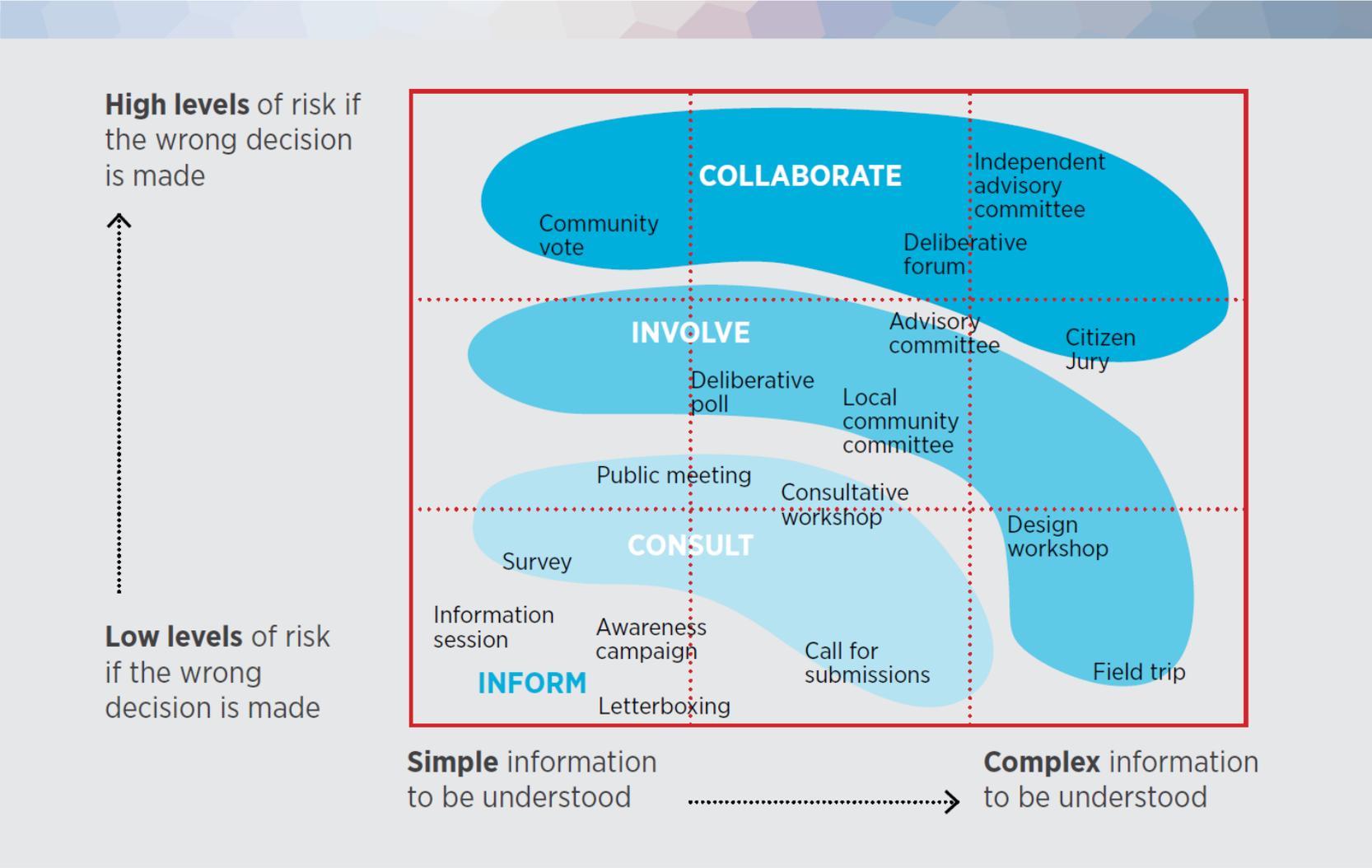
Figure 3: Proposed market segmentation curve for non-residential end customers



Source: Plausible 2025 customer segments were informed by an international literature review, commissioned expert papers and structured stakeholder workshops. In particular, Rosemary Sinclair of Energy Consumers Australia is acknowledged for employing the market curve device to graphically represent customer segments (adapted with permission).

Participation Matrix

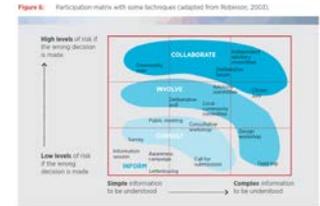
Figure 6: Participation matrix with some techniques (adapted from Robinson, 2003).



Clarity of Expectations

Best practice tips:

1. Show the **overall engagement plan** & where this fits.
2. Be clear about **Goals**, what the **performance measures** are, and **where on the spectrum** of levels of engagement.
3. **Be clear about the flexibility** on an issue before you start engaging – identify limits on business response.
4. **Ask customers what topics they are interested in** and what they want to understand.
5. Where complex, conduct some **early engagement** to build capacity.
6. **Be brave** about sharing specific business based information.
7. **Don't start engagement with the regulatory proposal.**
8. **Use case studies to explain how people might be affected.**



Early Experience in the Regulatory Process

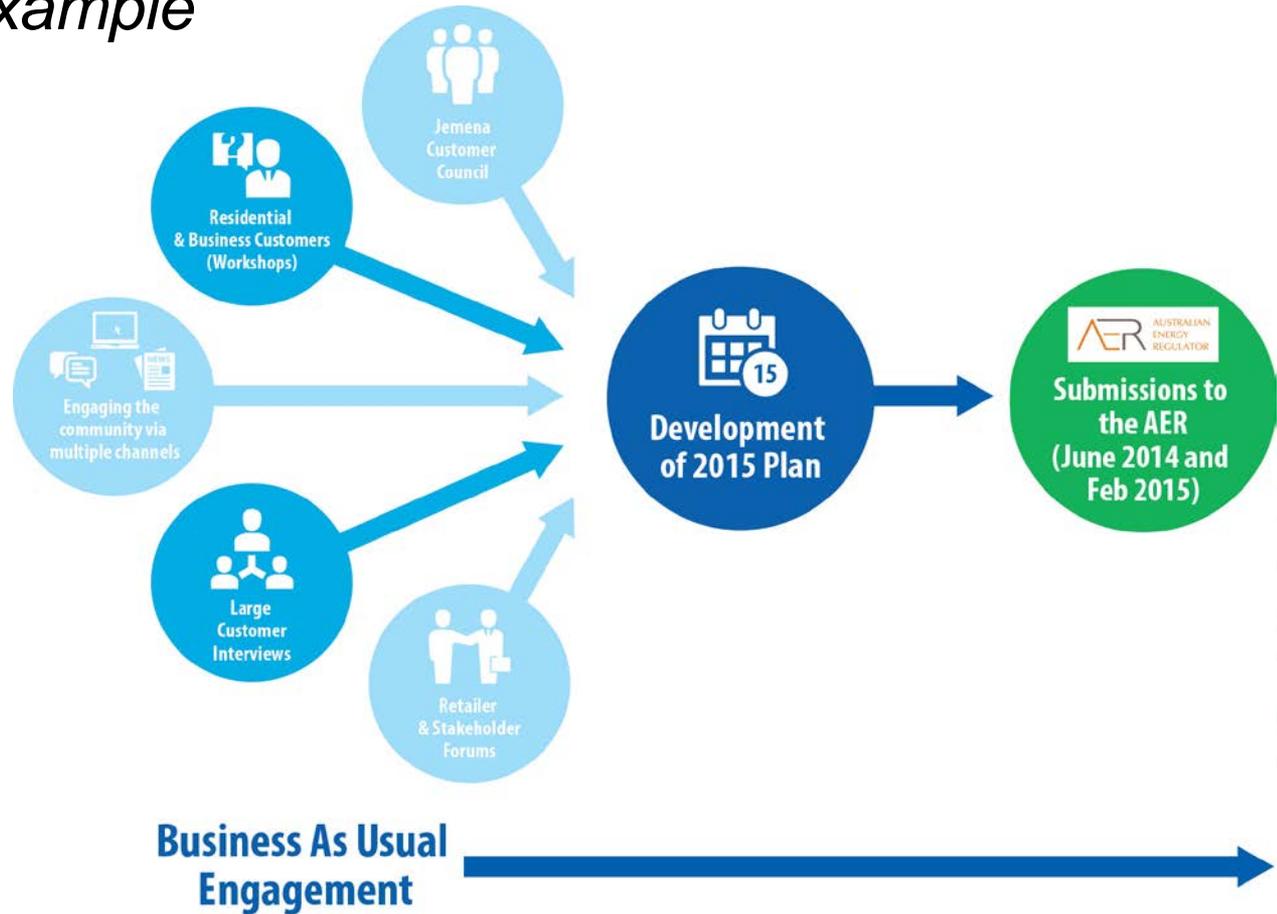
Figure 7: Energy network business engagement tools catalogued by the AER's Consumer Challenge Panel (2014).

Method	Ausgrid	Endeavour Energy	Essential Energy	ActewAGL	Energex	Ergon Energy	SA Power Networks	TransGrid	Transend	Jemena
Online survey	▲	▲	▲		▲	▲	▲	▲		
Telephone surveys	▲	▲			▲					
Directions & priorities paper						▲	▲			
Consultation paper								▲		
Customer Council meetings	▲		▲			▲				▲
Listening sessions						▲				
Consumer workshops		▲			▲		▲	▲	▲	▲
Customer discussion groups						▲				
Focus groups	▲	▲	▲		▲		▲	▲		▲
Stakeholder meetings	▲	▲	▲		▲	▲	▲	▲	▲	▲
Targeted strategic workshops							▲	▲		
Pricing methodology/tariff structure								▲	▲	
Website	▲	▲			▲		▲	▲		▲
Facebook campaign	▲	▲	▲							
Customer commitments						▲				
Customer engagement strategy	▲	▲	▲		▲		▲	▲		▲
Media releases	▲									
Stakeholder letters	▲	▲								
Research	▲	▲			▲		▲			
Willingness to pay research	▲	▲		▲	▲		▲	▲		
Cost trade off research						▲				
Media analysis	▲									
Online monitoring	▲									



Regulatory ENGAGEMENT

A Jemena Gas Example

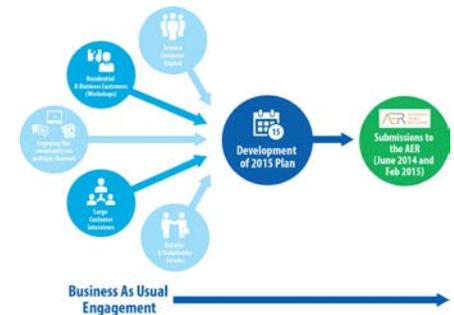


Regulatory ENGAGEMENT

Well received in regulatory process...

AER found:

- *identified and understood the relevant 'end user' or consumer cohorts.*
- *tailored engagement strategies to meet the needs of differing consumer groups.*
- *build consumer's ability to participate.*
- *clearly explained the role of consumers and how their input will influence decisions.*
- *developed and published a range of key performance indicators.*
- *provided strong internal engagement by having senior managers present at all meetings.*
- *clearly articulated the outcomes of their consumer engagement process.*



SIGNIFICANT RESOURCES can be INVESTED...

eg. SAPN Consumer Engagement Program

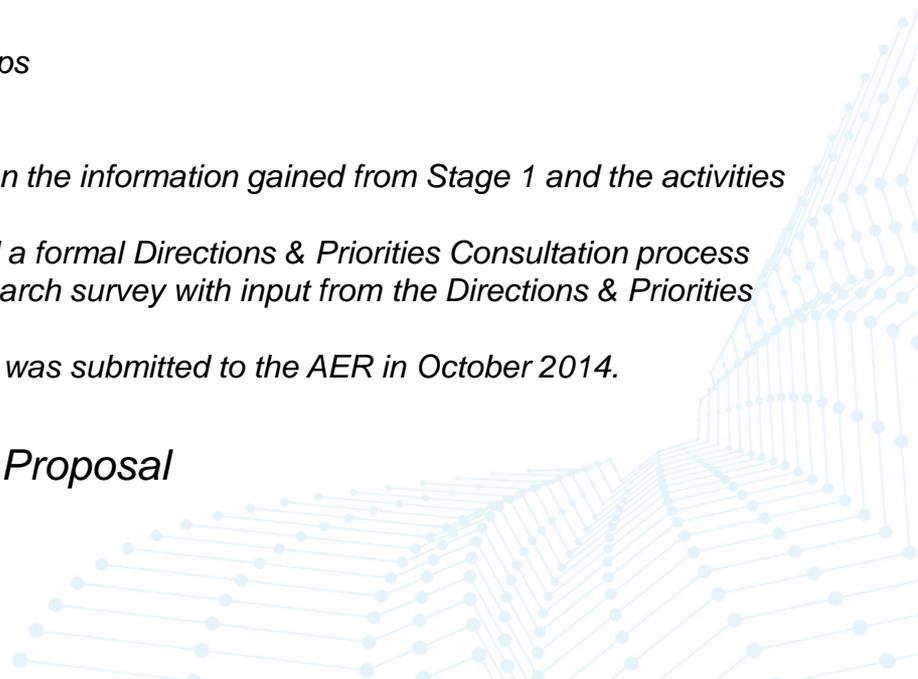
Stage 1: Research (since 2012):

- *Preliminary Stakeholder Perception surveys*
- *Stakeholder and Industry Consumer Workshops*
- *An Online Consumer Consultation Survey*
- *Bilateral Engagement with Key Stakeholders*

Stage 2: Strategy – which included:

- *Targeted Strategic Workshops*
- *Another round of Stakeholder and Consumer Workshops*
- *Further Bilateral Engagement with Key Stakeholders*
- *A Targeted Willingness to Pay Survey*
- *Development of a set of Directions & Priorities based on the information gained from Stage 1 and the activities above in Stage 2*
- *Conduct of a set of Directions & Priorities briefings and a formal Directions & Priorities Consultation process*
- *The development and conduct of a Service-Price Research survey with input from the Directions & Priorities consultation process*
- *Development of the SAPN Regulatory Proposal, which was submitted to the AER in October 2014.*

Stage 3: Regulatory –submittal of the Regulatory Proposal



SIGNIFICANT RESOURCES can be INVESTED...

eg. SAPN Regulatory Proposal – Chapter 6

ORC International: SAPN Customer Management Model Study – regulatory summary, February 2013 (attachment 6.1)

Deloitte: SAPN Stage 1 Stakeholder & Consumer Workshop Report, July 2013 (attachment 6.3)

Deloitte: SAPN Stage 1 Online Consumer Survey Report, July 2013 (attachment 6.5)

Deloitte, SAPN Stage 2 Stakeholder & Consumer Workshop Report, December 2013 (attachment 6.7)

The NTF Group: SA Power Networks Targeted Willingness to Pay Research Findings, July 2014 (attachment 6.8)

The NTF Group: Estimating Community Willingness to Pay – February 2009 (supporting document 6.12)

SAPN: Discussion Paper – Directions for vegetation management, SAPN's long –term plan for managing trees near power lines, March 2014 (attachment 6.9)

Local Government Association of South Australia: Submission – Directions for vegetation management, June 2014 (supporting document 15.1)

SAPN: The South Australian Distribution Network, Directions and Priorities 2015 to 2020, May 2014 (attachment 6.10)

SAPN: Directions and Priorities 2015 to 2020 consultation – submissions, June 2014 (supporting document 6.11)

The NTF Group: Service-Price Research Findings, October 2014 (attachment 17.3)

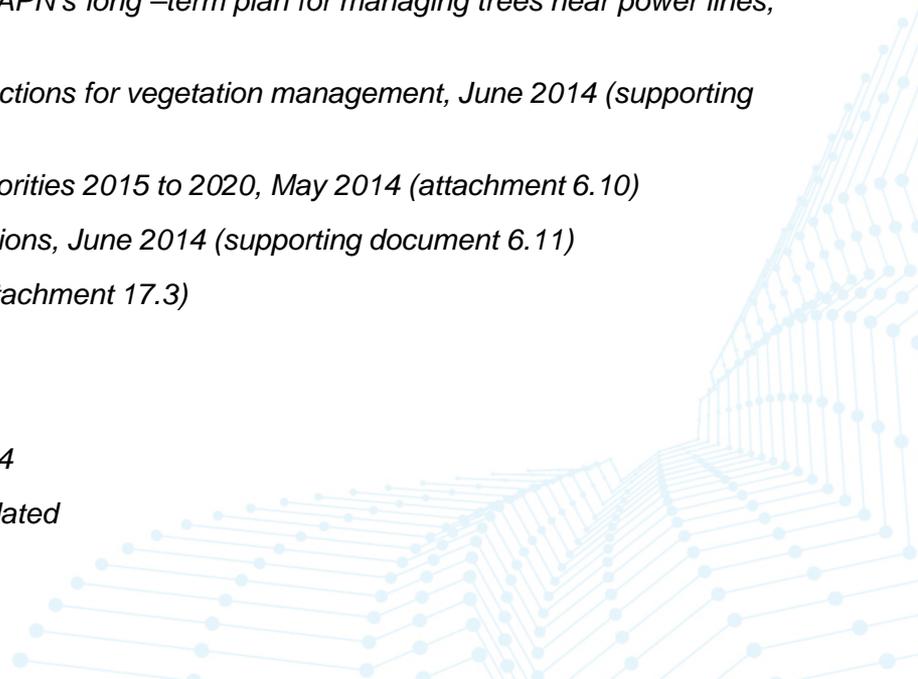
The supporting materials listed in Attachment B were:

SAPN RE: AER SAPN 031 – Consumer Engagement, March 2015

The NTF Group Service-Price Research Questionnaire, October 2014

The NTG Group Targeted Willingness to Pay Survey Instrument, undated

Deloitte, Stage 1 Online Consumer Survey Questionnaire, 2013



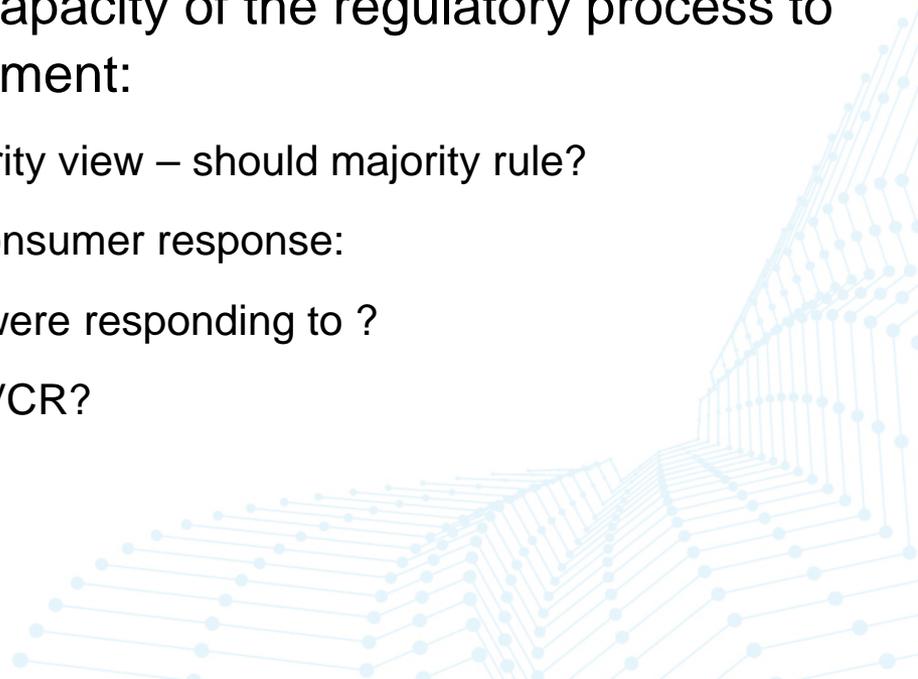
FOR A DISPUTED RESULT...

AER's Oakley Greenwood review :

- Recognised Robust statistical method, sample size etc
- Recognised SAPN had confirmed WTP on the questions asked
- Queried whether sufficiently broad testing of other priorities
- Queried whether other rankings were possible?

Raises challenging issues about the capacity of the regulatory process to second-guess the outcome of engagement:

- Alternative approaches to determining majority view – should majority rule?
- Questions raised premised on surprise at consumer response:
 - Did consumers really know what they were responding to ?
 - What if it it doesn't align with AEMO's VCR?



DETERMINING THE ‘REAL’ VOICE OF THE CONSUMER...?

Our conclusion: it is difficult for the AER to conclude, from any AER engagement with customer representatives, that our proposal does not reflect a service and price offering that promotes our customers’ long-term interests.

Activity	Target customer cohorts	JGN		AER	
		Engagement level	Outcomes	Engagement level	Outcome
JGN CC	Vulnerable, residential, small business, large customers, retailers	<p>Meetings with our CC were a primary means of engagement across issues that affect our entire customer base. Therefore, we engaged the CC on a broad range of issues related to our safety and services levels, our forecast costs and our proposed prices. Some of these specific issues were:</p> <ul style="list-style-type: none"> how we should engage with our customers and on what issues (<i>involve</i>) how our distribution gas prices are determined, including the regulatory framework and the role of the AER, and the role of other market participants in the gas supply chain, including retailers, and IPART (<i>inform</i>) how we should accommodate changes that are occurring in the gas market, and what aspects of the ‘customer experience’ we 	<p>Taking into account CC feedback we have:</p> <ul style="list-style-type: none"> conducted the deliberative forums discussed in Section 2 to engage directly with a representative sample of our customers committed to maintaining safety levels as our non-negotiable top priority proposed maintaining current service levels for most of our customers proposed improving service levels where necessary to provide a universal level of service considered our prices in the context of the total cost of gas and likely end-retail prices over the 2015 period proposed placing downward pressure on end-retail prices, particularly in later years of the 	<p>AER staff attended two out of JGN’s various CC meetings:</p> <ul style="list-style-type: none"> As an observer at a meeting of JGN’s customer council and site inspection when the CCP met with our CC to ask questions about JGN’s engagement (<i>observe</i>) As a presenter to inform JGN’s CC of the draft decision. (<i>inform</i>) 	<p>Unclear how feedback from the CC has influenced the draft decision.</p>

DETERMINING THE 'REAL' VOICE OF THE CONSUMER...?

NNSW:

- AER Draft decision made tradeoff proposals without engagement:
 - reduce replacement expenditure and accept greater risk and higher rates of asset failure
 - more efficient to have more local service interruptions at local level with customer compensation
- Statistically robust IPSOS Modelling using DCE rejected due to framing of question.
- Ausgrid experts concluded 7.3% increase in SAIFI and a 25% increase in SAIDI by 2020.

ENERGEX:

- AER Draft Decision instituted upfront meter charges without consultation.

*“Energex did not propose in its original proposal to charge upfront for new or upgraded metering installations but will apply the AER’s preliminary decision to charge upfront. **This represents a significant change to Energex’s original proposal for which there has been very little consultation or engagement.** Energex has continued reservations regarding customer impacts, noting that charging upfront may potentially reduce the take-up of solar PV and controlled load tariffs.”*

Energex Response

Evaluating engagement

- Customer engagement activities must be documented and evaluated
- Distinguish **overall engagement** measures and **specific activity** measures
- Effective metrics
 - Linked to engagement goals
 - Are consistent
 - Have defined scale
 - Allow for validation

Importantly

Those engaged should be able to see how their feedback has been taken into account

Measures for Specific Activities

- *Was this engagement activity worthwhile?*
- *Were you satisfied with the engagement process?*
- *Did you feel your views and contributions were accepted?*
- *Do you think the company will act on the outcomes of this engagement process?*
- *Was the engagement process open and transparent?*
- *Do you think the appropriate people have been included in this engagement process?*

Evaluating Engagement

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"So things are good, stuff is OK, and I reiterate my request for more specific data."

