



Customer and Stakeholder Engagement Activities and Findings Part F



Part F

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MEETING MINUTES

Wednesday, 22 March 2017, 9.30am to 11.30am

Chairperson:	Bruce Rowley (BR)	Endeavour Energy General Manager Corporate and Customer Services
Attendees:	Lesley Scarlett (LS) Annie Kiefer (AK) Michelle Playford (MP) Trevor Oldfield (TO) Endeavour Energy Kate McCue (KMc) Jon Hocking (JH) Dan Bubb (DB) James Tydd (JT) Meghan Bibby (MB) Kieran Shanahan (KS) Rachel Hardman (RH)	Illawarra Pilot Joint Organisation Country Women's Association (CWA) Western Sydney Regional Organisation of Councils (WSROC) Greater Blacktown Business Chamber Manager, Corporate Affairs Manager, Network Regulation Manager, Network Pricing Stakeholder & Community Relations Manager (minutes) Manager, Customer Service Manager, Major Contracts Branch Administrator
Apologies:	Peter El Khouri (PEK) Michelle Caruso (MC) Christine Winning (CW) Kristal Burry (KB) Douglas McCloskey (DMc) Katherine Baker (KB) Paul Knight (PK) James White (JW)	Multicultural NSW NSW Business Chamber Macarthur Regional Organisation of Councils (MACROC) Public Interest Advocacy Centre (PIAC) NSW Council of Social Services (NCOSS) Illawarra Business Chamber Member - Illawarra Aboriginal Land Council Urban Development Institute of Australia (UDIA)

Minutes

1. Welcome and introduction - BR

BR provided brief overview of agenda items. (Attendees were given a meeting pack which included an agenda, presentation and previous minutes)

Previous minutes were accepted and actions closed.

2. Business update

Lease transaction - BR provided summary of lease transaction. Long process. Management presentations to potential buyers occurring. Bidding stage ongoing and Q&A continuing.

Coronial inquest – BR provided summary. EE was awaiting coroner’s report into cause of Blue Mountains bushfires in October 2013. The Coroner is examining the possible causes of two fires. There is a claim the fire on Linksvie Road started when a tree fell on powerlines. Winds were 100km/h on day of fires.

General committee discussion about responsibility of tree trimming in different areas i.e. residents and networks have different responsibilities. TA commented that it was important that people were aware of their responsibilities and take care to carry them out. BR said EE invested a lot of money into tree trimming to maintain safety including LiDAR aerial surveys of some network areas. KS commented that 40 per cent of our trees were in bushfire prone areas.

3. CCC membership

BR provided summary of members who had moved on or been replaced.

Name	Replaced by...
Jess Mutton Public Interest Advocacy Centre Senior Policy Officer	Kristal Burry Public Interest Advocacy Centre Acting Senior Policy Officer
Rebecca Burdick Illawarra Business Chamber Policy Manager	Katherine Baker Illawarra Business Chamber Policy Manager
Stephen Albin CEO Urban Development Institute of Australia	James White Manager, Policy and Research Urban Development Institute of Australia NSW
Noel Hiffenan Break Thru People Solutions, Greystaines Disability Services, Mountains Youth Services Team, Syd-West Multicultural Services Inc.	Replacement TBC

EE looking to increase membership and scope of CCC in future. EE would approach Energy Consumers Australia and Ethnic Communities Council to look to include these important stakeholder organisations in the CCC.

4. Pilot program - Life support customer notification - KS

BR introduced KS. KS provided background and summary of how we notify Life Support Customers (LSCs) prior to planned outages.

National Energy Customer Framework (NECF) was implemented on 1 July 2013; whereby distributors must give LSCs minimum of 4 business days’ notice prior to a planned outage. If not, breaches and fines may apply. EE’s Primary means of outage is via letterbox drop. In addition to the letterbox drop, EE adopted an approach that for life support customers’ personal contact (doorknock) would also be made. If customer was not home, follow-up phone calls, or further site visits. However in many instances, after multiple attempts at personal contact, when contact was finally made, the customer would advise us they only use a Continuous Positive Airways Pressure (CPAP, to treat sleep apnea) machine at night and were not concerned by the outage.

PILOT PROGRAM - KS summarised a pilot process which had commenced to provide more targeted customer focus and increased safety for this vulnerable customer group. Process included replacing the door knock etc., with letters automatically sent to all directly impacted life support customers, and all life supports in proximity. Pilot also wanted to test whether the vast majority of life support customers were not concerned about a planned outage, provided they

have notice.

RESULTS - The pilot has been conducted for over 40 planned outages organised by Narellan Field Service Centre (FSC) since early February 2017. Up to the 17 March 2017:

- 474 letters had gone to life support customers, who did not receive a door knock or phone call.
- Of these 474 life support customers, only 1 customer (0.2%) had contacted Endeavour Energy prior to the outage requesting assistance, as they have a 24 hour dependency for dialysis.
- For the 201 life support customers in proximity, 3 of these customers (1.5%) had rung on the day of the outage to enquire as to whether or not they would be losing power for the day.
- For these customers, checks are made with crews on site, and if the outage has been implemented and the life support customer still has power, we can advise customer by phone that they should not be impacted by the outage

NEXT STEPS - The pilot will be expanded to other FSC's within Central Region to 30 June 2017. Planning has commenced for consideration of a full rollout across all areas, subject to feedback and further analysis of pilot results.

5. Tariff Structure Statement - DB

DB presented a timeline slide which provided a summary of the tariff reform process to date. The most recent milestone was that the AER approved Endeavour Energy's TSS on 28 February 2017. EE will submit its annual pricing proposal to AER on 31 March. Prices would go live on 1 July 2017.

EE has calculated that between FY16 to FY17 there would be a bill reduction of 4.5% and 5.3% for small and average residential customers respectively. Large customers could expect an increase of around 0.7%.

TSS feedback loop

Stakeholder feedback on TSS had included the following: 'Remove the DBT', 'Encourage TOU pricing through opt-out programmes', 'introduce demand based tariffs for small customers', 'strive for simplicity', 'manage impacts through considered transition'.

DB said that as a result, Endeavour Energy had implemented the following key changes to its initial TSS 1 (FY18 to FY19).

- transition from Declining Block Tariff (DBT) to a flat tariff
- introduce opt-out Time of Use (TOU) pricing for new and upgrading customers from 1 July 2018
- removal of weekend shoulder rates for residential TOU, thereby aligning with business TOU definition.

TSS 2 (FY20 to FY24) – what we will take to stakeholders

- Introduce demand component to TOU pricing
- consider opt-out TOU tariff options for customers with metering installed prior to 1 July 2018
- review TOU charging window definitions to better target periods of likely network congestion

Future engagement

Engagement and consultation with stakeholders and the community will be ongoing throughout the development of the TSS for 2019-24. LS raised issue about tariffs for business customers and the importance of providing predictability to for business customers. General discussion about tariffs for business customers. It was recognised that retailers' actions may negate the effects tariffs set by the network distributors.

6. 2019-24 Network Regulation - JH

Slide showing average residential bill had increased \$96 between 2011-12 and 2016-17.

Endeavour Energy charges had decreased \$11 during this period.

Framework and Approach Preliminary Framework and Approach paper - slide showing the AER's proposed classification for network services for 2019-24. Classification shows what services would be regulated what would not

be. Unclassified to include Type 1-4 metering services and unregulated distribution services. Other considerations in paper are what incentive schemes should be applied to what services, and the forecast expenditure approach. Submissions to paper close 21 April 2017.

7. Customer and stakeholder engagement review - JT

Brief overview provided showing the electricity network is changing, with greater penetration in future of grid side services and technology; centralised and local energy production; cleaner and diverse sources of energy; and smart grids. Research shows customers want increased value and choice from energy decisions and emerging technologies. Engagement continues to be critical to the development of our 2019-24 AER regulatory proposal. Energy Networks Association / CSIRO Network Transformation Roadmap will help frame our engagement approach.

JT provided high level findings independent review of our customer engagement in 2016. Review included internal and external interviews with key stakeholders. Proposed engagement activities until submission of regulatory proposal in Jan 2018, shown. These will include focus groups and deliberative planning forums with residential and SMEs customers, and roundtables with key stakeholder organisations.

8. General business

Action – JT to circulate minutes of meeting (complete)

Next meeting

Date: Tuesday 25 July 2017
Time: 9am to 11.30am
Location: Warragamba Room
Ground Floor
Endeavour Energy
51 Huntingwood Drive
Huntingwood NSW 2148

MEETING MINUTES

Tuesday, 25 July 2017, 9.30am to 11.30am

Chairperson:	Bruce Rowley (BR)	Endeavour Energy General Manager Customer and Corporate Services
Attendees:	Louise Benjamin (LB) Annie Kiefer (AK) Andy Karklins (AK2) Lynne Gallagher (LG) Michelle Caruso (MC) Christine Winning (CW) Tim Harrison (TH) Sue Vercoe (SV) <u>Endeavour Energy</u> Rod Howard (RH) Bruce Rowley (BR) Kate McCue (KMc) Jon Hocking (JH) James Tydd (JT) Meghan Bibby (MB) Daniel Bubb (DB) Rachel Hardman (RCH)	AER Consumer Challenge Panel Country Women's Association (CWA) Western Sydney Regional Organisation of Councils (WSROC) Energy Consumers Australia, Director, Research NSW Business Chamber Macarthur Regional Organisation of Councils (MACROC) Public Interest Advocacy Centre Newgate Research (Keynote Speaker) Chief Operating Officer GM, Customer and Corporate Services Manager, Corporate Affairs Manager, Network Regulation Stakeholder & Community Relations Manager (minutes) Manager, Customer Service Network Pricing Manager Branch Assistant
Apologies:	Lesley Scarlett (LS) Peter El Khouri (PEK) Trevor Oldfield (TO) Kristal Burry (KB) Douglas McCloskey (DMc) Katherine Baker (KB) Paul Knight (PK) James White (JW)	Illawarra Pilot Joint Organisation Multicultural NSW Greater Blacktown Business Chamber Public Interest Advocacy Centre (PIAC) NSW Council of Social Services (NCOSS) Illawarra Business Chamber Member - Illawarra Aboriginal Land Council Urban Development Institute of Australia (UDIA)

Minutes

1. Welcome and introduction - BR

BR provided brief overview of agenda items. (Attendees were given a meeting pack which included an agenda, presentation and previous minutes)

Previous minutes were accepted and actions closed.

BR formally welcomed AER Consumer Challenge Panel member Louise Benjamin and thanked her for attending.

2. Directions Paper - JH

JH gave an overview of Directions Paper which would be published in early August 2017 in lead up to submission of initial Regulatory Proposal.

Key points:

Paper is aimed at seeking engagement from informed stakeholder groups – other engagement modes are being used to engage with end use customers. The purpose is also to seek genuine feedback – we are asking questions where we can genuinely guide the direction of our January proposal.

Paper is focused on attaining feedback on the most important priorities for customers, how we can deliver these priorities, investment in future growth and new technology and tariff reform.

JH said tariff reform was a big issue as we moved towards cost reflective pricing. The question of transition was critical so as to prevent bill shock and assist vulnerable customers. Paper discusses three types of tariffs: flat, seasonal time of use and seasonal time of use demand and the potential ST and LT impacts of each. The tariff must send the right price signals to customers so increased investment doesn't lead to increased prices for customers.

JH asked what were the central issues and priorities you want us to address in our proposal?

Summary of feedback

MC said reliability was crucial for businesses and they could lose a lot of revenue from power outages. MC said it was important for government to play a role to keep prices down in the long term. Look at ways the government can subsidise the cost of electricity. AK said customers were using less energy and the cost of maintaining the network had to be passed on to somewhere.

LB asked how EE was addressing potential increases in capex. JH said the main way this was done was through addressing peak demand. JH said EE was also undertaking battery trials to store electricity to be used during the peak. RH said the main purpose of the battery trials was to find out the best ways to use technology to decrease the need for capital investment. RH said it was important that EE was proactive and had to learn from technology trials.

AK said that it was important for customers to have smart meters so they could respond to price signals. JH said that the roll out of smart meters was being led by the retailers, that EE was not allowed to roll them out.

LG said it was important when engaging with customers to be able to demonstrate how they would be affected by different price / reliability trade-offs, so they could make like-for-like comparisons of different price levels and the effect of this price on services.

3. Engagement - KMc

KMc said it was important from our engagement that we understood customers' energy priorities; improve relationships with key stakeholder and customer groups; made sure we took steps to enable customers' future energy choices and aligned ourselves with the ENA Roadmap; kept looking to improve our engagement approach, including our day-to-day business as usual engagement with our customers and key stakeholders.

KMc invited SV to provide a summary of some specific engagement that had been undertaken and the findings of that engagement. SV provided details of :

- 10 x two hour focus groups held in Parramatta, Wollongong, Camden, Katoomba and Bella Vista
- Two x four hour deliberative forums planned for Parramatta and Wollongong in early August 2017. This included a two-day online community the week prior to the forums and a follow up quantitative survey.

SV said the focus groups were important to attain an early understanding of what issues were of most interest to

customers. Focus groups were to explore and understand customer priorities and preferences and listen to their feedback on five key areas: knowledge and attitudes towards electricity; knowledge and perceptions of Endeavour Energy; expectations in relation to the future of the network; initial reactions to specific tariff structures; preferences in relation to engagement and decision-making.

Video shown to demonstrate some of the ways in which EE educated customers so they were able to make informed decisions

Key themes of focus groups were:

1. Affordability; however there was an increasing interest in renewables and the security of supply.
2. Customers were encouraged by the idea of the grid becoming a two-way platform however some questioned the likelihood of a two-way platform happening unless there is an increased incentive for consumers to install solar via higher feed-in tariffs. In the longer-term, customers are keen to see further investigation into large-scale battery storage solutions and micro-grids.
3. Customers were comfortable with the concept of cost reflective pricing but wanted detail on the bill impacts so they could make a more informed judgement

LG said it was important for EE to demonstrate how it responded to the feedback that had been attained from its customers.

SV provided a high level summary of the engagement approach to be used in the online community and deliberative forums occurring in early August 2017. SV said the idea of the online community was to educate customers prior to the forums and seek opinions on a series of topics to be explored in more detail at the deliberative forums.

SV went through the structure of the deliberative forums and the main topics to be covered. These were:

1. Affordability – specifically tariffs and pricing. The shift to cost reflective pricing including exploring options, possible tariff options including flat tariff – higher fixed charge; seasonal time of use pricing; seasonal time of use demand charge;
2. Reliability – exploring opinions around different options for reliability: improve / maintain or decrease levels of reliability;
3. Future grid and proposed options for investment to address growth in our franchise area; battery storage, micro-grids and solar connections;
4. Supporting vulnerable customers; and back-up supply (generators) for businesses during planned outages.

KMc prompted a general discussion around the method of engagement to be used at forums.

LG said it was important for customers to understand the practicality of different investment decisions when they were presented with different choices. You might be able to present an option as to how it might be introduced, such as a 'try before you buy' type of arrangement for a tariff, for example. LG said bill predictability was important and customers needed to understand their current load and the implications of different types of tariffs and changes in behaviour and how this impacts bills.

General discussion moved to how to best cover issues related to vulnerable customers. LG said it was important that people with medical needs like life support equipment be dealt with separately as people would have separate opinions around levels of acceptability of different service levels and costs when supporting vulnerable customers. KMc said EE had also been in consultation with PIAC and NCOSS about the right questions to ask in order to obtain opinions about support for vulnerable customers.

LB - a large part of the engagement would be asking people's opinions on how to recover revenue in terms of tariffs which is a complex topic that is difficult for people to understand. LB encouraged EE to look at the most appropriate way to seek feedback on these questions as the approach outlined could be improved. Informing customers about the concepts of demand, capital investment, tariffs and revenue and how they were linked was critical for them to be able to make informed choices. Feedback was acknowledged.

LB said the questioning around the future grid and future energy choices should be approached differently with a greater emphasis on bill impacts rather than general opinions of proposed investment. KMc acknowledged feedback from LB.

4. Ownership change - RH

RH gave a presentation summarising the recent change of ownership of EE.

Key points:

On 14 June 2017, an Australian led consortium of long-term institutional investors acquired 50.4% ownership of the rights to manage Endeavour Energy's network assets under a 99-year lease.

Consortium members (Macquarie, bcIMC, AMP Capital, Qatar Investment Authority) are long-term investors in infrastructure assets worldwide. The consortium would focus on the following priorities for EE: improving safety for employees, contractors and the general public, developing a stronger and better skilled work force, investing to improve network resilience and reliability, reducing consumer bills, supporting urbanisation and growth in western Sydney.

General discussion around the new ownership including the future of the network and accommodating new growth areas. MC said she was supportive of initiatives to reduce costs for businesses. RH was asked the percentage of the network that had underground wires and the percentage that was overhead. RH said approximately one third of customers had underground power lines and two thirds were overhead, however in 20-25 years time it was likely the majority of customers would have underground power lines in their street. RH said servicing growth in new areas including the new Sydney Airport would be critical.

5. General business

Action – JT to circulate minutes of meeting (complete)

Next meeting

Date: Wednesday 22 November 2017
Time: 9am to 11.30am
Location: Warragamba Room
Ground Floor
Endeavour Energy
51 Huntingwood Drive
Huntingwood NSW 2148

MEETING MINUTES

Wednesday, 22 November 2017, 8.45am to 11.45am

Chairperson:	Andrew Schille (AS)	Endeavour Energy General Manager Regulation and Corporate Affairs
Attendees:	Mike Swanston (LB) Annie Kiefer (AK) Nic Pasternatsky (NP) Oliver Derum (OD) Tim Harrison (TH) Sue Vercoe (SV) Trevor Oldfield (TO) Sam Stone (SS) Endeavour Energy Tony Narvaez (TN) Rod Howard (RH) Ty Christopher (TC) Kate McCue (KMc) Jon Hocking (JH) Meghan Bibby (MB) Rachel Hardman (RCH) Peter Langdon (PL) James Tydd (JT)	AER Consumer Challenge Panel Country Women's Association (CWA) Western Sydney Regional Organisation of Councils (WSROC) Energy Consumers Australia Public Interest Advocacy Centre Newgate Research (Keynote Speaker) Greater Blacktown Business Chamber Urban Development Institute of Australia Chief Executive Officer Chief Operating Officer General Manager Asset Management Manager, Corporate Affairs Manager, Network Regulation Manager, Customer Service Branch Assistant Manager, Asset Strategy and Planning Stakeholder & Community Relations Manager (minutes)
Apologies:	Lesley Scarlett (LS) Douglas McCloskey (DMc) Katherine Baker (KB) Michelle Caruso (MC) Christine Winning (CW)	Illawarra Pilot Joint Organisation NSW Council of Social Services (NCOSS) Illawarra Business Chamber NSW Business Chamber Macarthur Regional Organisation of Councils (MACROC)

Minutes

1. Welcome and introduction

AS provided brief overview of agenda.

Attendees were given a meeting pack which included an agenda, presentation and previous minutes.

Previous minutes were accepted.

TN spoke briefly about his professional experience prior to becoming EE CEO in mid-2017. TN outlined the important role of the CCC in the EE's engagement activities and thanked CCC participants for their ongoing commitment.

2. Customer Research

SV presented key findings of deliberative consultation with community and SMEs to date.

Some key energy issues that emerged during the consultation

Affordable electricity – this is the primary issue for customers.

Reliability- most customers were happy with the current levels of reliability but some indicated they would accept more blackouts if it did not inconvenience them.

Cost reflective pricing - most customers ultimately supported the concept of cost reflective pricing. 80% of customers would choose cost reflective pricing options over a flat tariff. Overall, a 'seasonal time of use' tariff was preferred over a 'seasonal time of use demand' tariff.

Vegetation management - a contentious topic - most did not want to pay more but many felt there must be a better way to improve amenity and address this issue over the long term.

Future of the grid - customers were focused on the future and how changes will impact what's important to them – reliability, affordability and choice. Strong support for proposed investment to trial new technology and start adapting the network so it can be ready to respond to customers' technology choices such as electric batteries and cars.

Support for vulnerable customers - the majority believed Endeavour's focus on efficiency was doing enough for vulnerable customers however there was some interest in improving services for life support customers

General discussion. CCC members raised questions about the significance of asking customers about their attitudes to reliability, relationship of Time Of Use (TOU) to reducing peak demand and capital investment and the role of retailers in implementing TOU pricing. EE responses below.

Attitudes to reliability were an important part of our regulatory proposal. We also must be focused on meeting our licence conditions around reliability.

We will continue to consult with consumers to encourage them to go to Time Of Use (TOU) pricing. At present we are looking to introduce an opt-out TOU demand tariff. When connecting +100K customers over the next five years, if these customers change their behaviour to reduce bills that is a big drop in capital expenditure.

Retailers requested that they wanted to work with us to help encourage customers to transition to TOU. There is still work to do with retailers.

TA added that implementing TOU tariffs is a challenge as retailer behaviour may be uncertain.

EE is looking to request an extension to deadline to submit proposal to undertake further engagement. EE looking to approach the AER by end of Dec 2017.

3. Directions Paper feedback

KMc outlined summary of key findings of responses to our Directions Paper. Some key issues which emerged were: affordability, reliability of electricity supply, tariff simplicity (retailers), review of Street Lighting Use of System tariffs (councils); strong support for investment in new greener technology, particularly from local government; more collaboration and education regarding regulatory plans.

4. 2019-24 Regulatory Proposal Price Path and OPEX

AS and JH provided key points:

- Directions Paper nominated CPI plus \$1 to \$2 per annum price rise per customer
- After the Directions Paper was published and EE attained feedback which indicated growth was originally underestimated.
- despite these cost increases we improved our price commitment and propose to do more than we originally said at the same price commitment.

EE originally estimated a \$1 to \$2 price rise each year or rise of CPI plus \$7 in the first year. Stakeholders raised questions about the origin of the \$7 rise (MS).

OD: Commented that growth would lead to increased connections which would lead to costs being shared across a greater number of people. OD asked whether the EE Rate of Return would be in line with the AER guideline. AS said there was a difference between guideline and our calculations but the results were similar - a \$1.5m difference.

OPEX – 2014-19

AS - AER accepted our base costs as efficient and disallowed additional tree clearing costs. OPEX for FY18 and FY19 forecast to be \$3m less (respectively) than AER final decision. This is a good outcome for customers. Network reliability and customer service levels have been maintained. Tree trimming as per original plans. This demonstrates our efficiency programs have been effective.

RH – Through our efficiency programs we have had to maintain compliance. We have about 500-600 less staff than in April 2015. We have had to pay redundancy payments as part of this reduction in staff which contributed to operating costs.

AS presented slide showing that under our current regulatory proposal average the operating cost per customer will decrease from 2014-19 (\$308) to 2019-24 (\$275). Despite decrease we plan to maintain the same levels of service. MS asked: when OPEX decreases by \$25 (approx.) per customer how does that translate to the final bill. ACTION – AS to provide MS information on effect of decrease in OPEX into final bill.

5. 2019-24 Proposal

RH provided overview of current regulatory proposal. Table showing breakdown of proposed capex for 2019-24 presented.

Key points

New connections – a main driver of the increase in proposed capex was an increase in new connections and growth. UDIA and local councils have reinforced with us the importance of being able to respond to growth. General discussion about the drivers of growth and changes in proposal from Directions Paper (\$150m) and current proposal (\$310m).

Capital contributions – EE analysis across distributors showed that we were seeking higher levels of contribution towards new assets and therefore this was impacting housing affordability. In response we are contributing more to the network costs of new development and we are now more consistent with other areas in Australia – also this should be reflected in future land prices.

Contingent projects - We have identified the following project for further discussions and consideration prior to finalising our submission: Sydney second airport development - \$65m.

Replacement - EE proposing to maintain our expenditure consistent with the Directions Paper (\$850m). AK how EE decided which assets needed replacing. PL said a thorough risk assessment was completed. MS raised the topic of the ENA's transformation roadmap and asked how the penetration of renewables was being used in demand management forecasts. RH commented that EE had picked up elements of the road map, like pilot testing and demand management.

Information Technology - EE forecast is lower in the next period than current levels. EE to substantially complete our IT transformation within the current period. EE will also ensure the security of IT systems is improved in the next period to satisfy new IPART licence conditions.

MS questioned how EE had determined the higher level of capital contributions asked whether EE had figures on the efficient level of capital contributions. It was noted that EE would continue to engage with stakeholders on its capex proposal including capital contributions.

6. General business

None

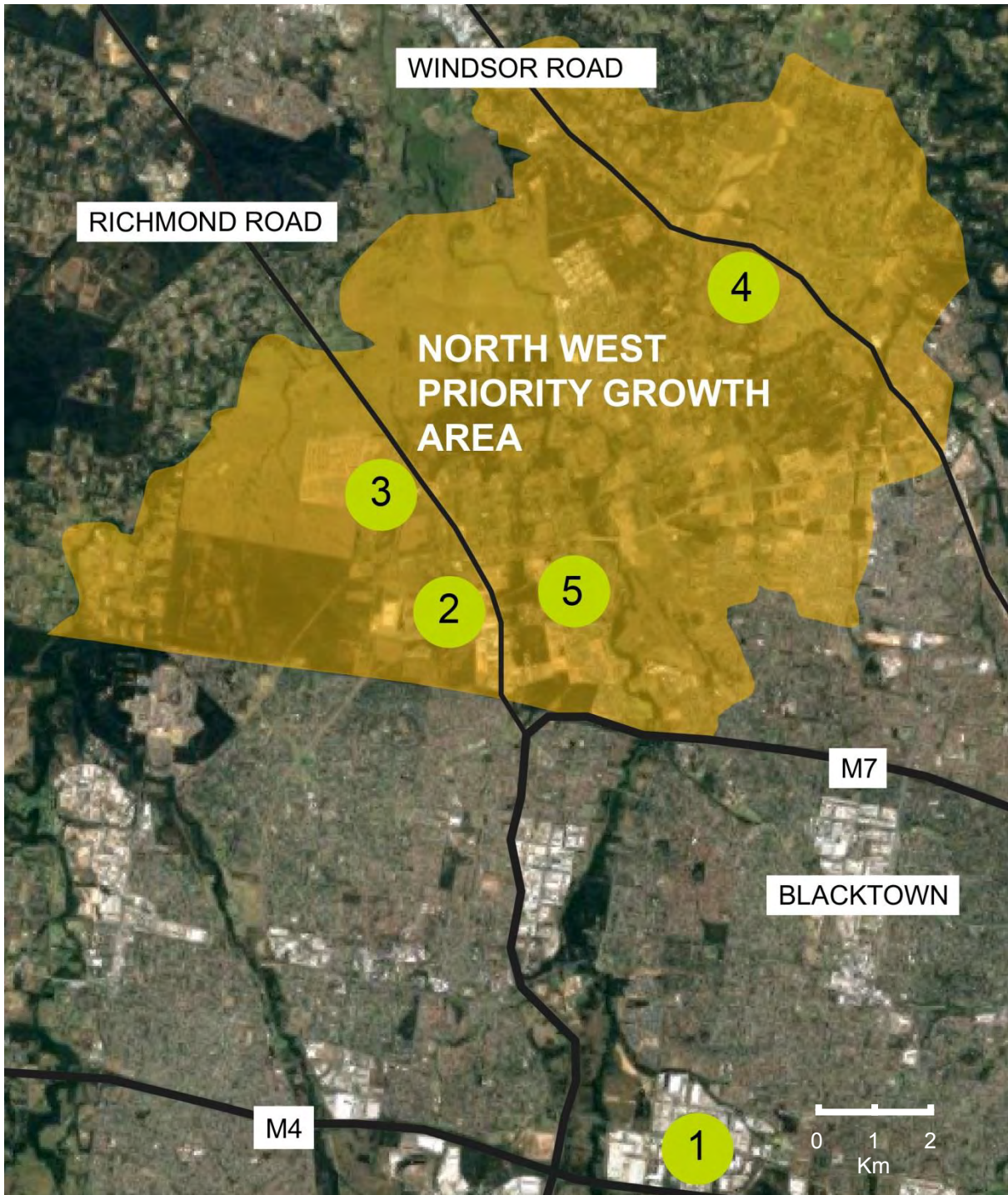
**CUSTOMER
CONSULTATIVE
COMMITTEE**

**NORTH WEST PRIORITY
GROWTH AREA SITE TOUR**

22 NOVEMBER 2017



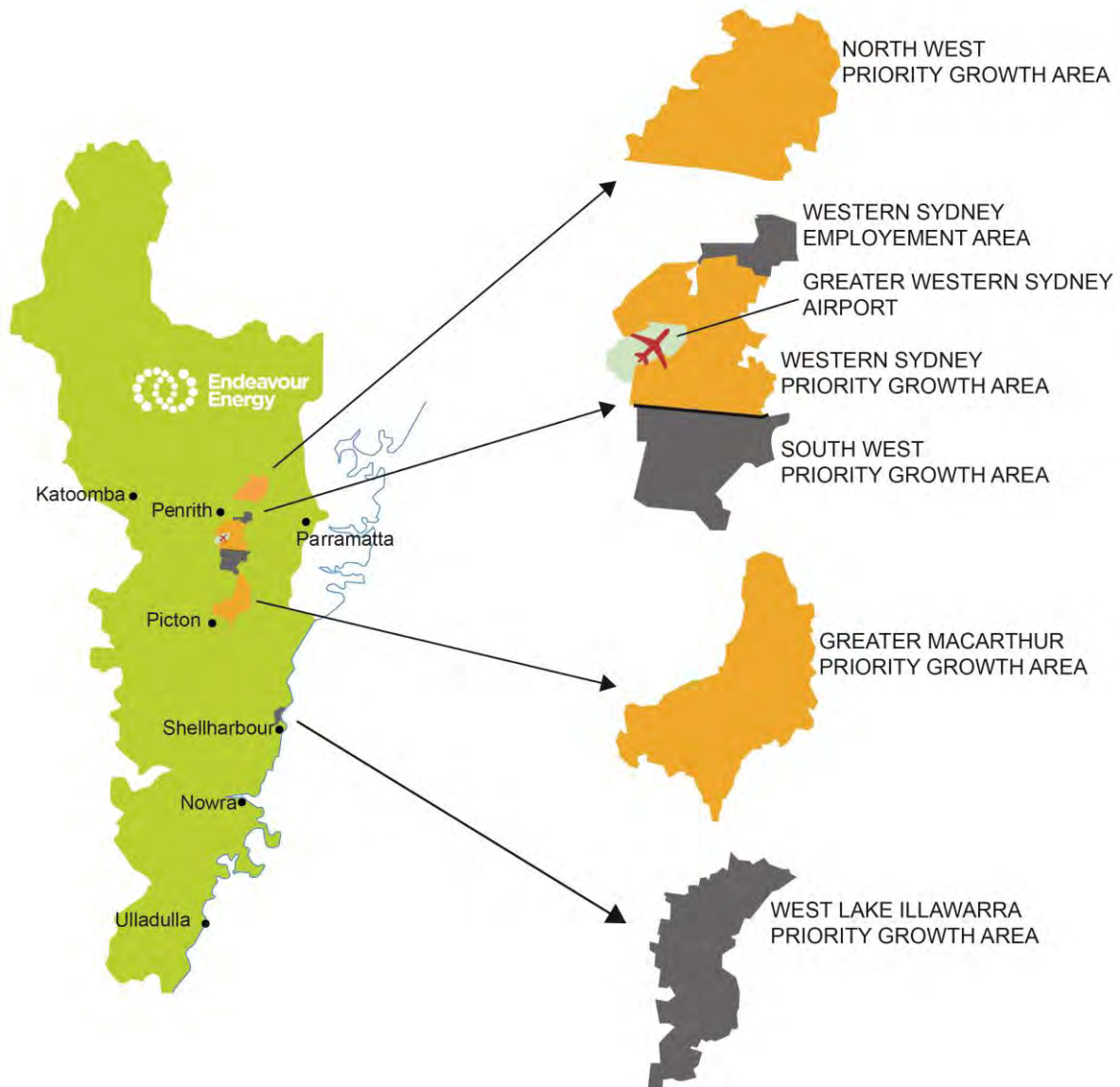
TOUR MAP



1. Endeavour Energy Head Office
2. South Marsden Park Zone Substation
3. Marsden Park Zone Substation*

4. Riverstone East Zone Substation
5. Schofields Zone Substation

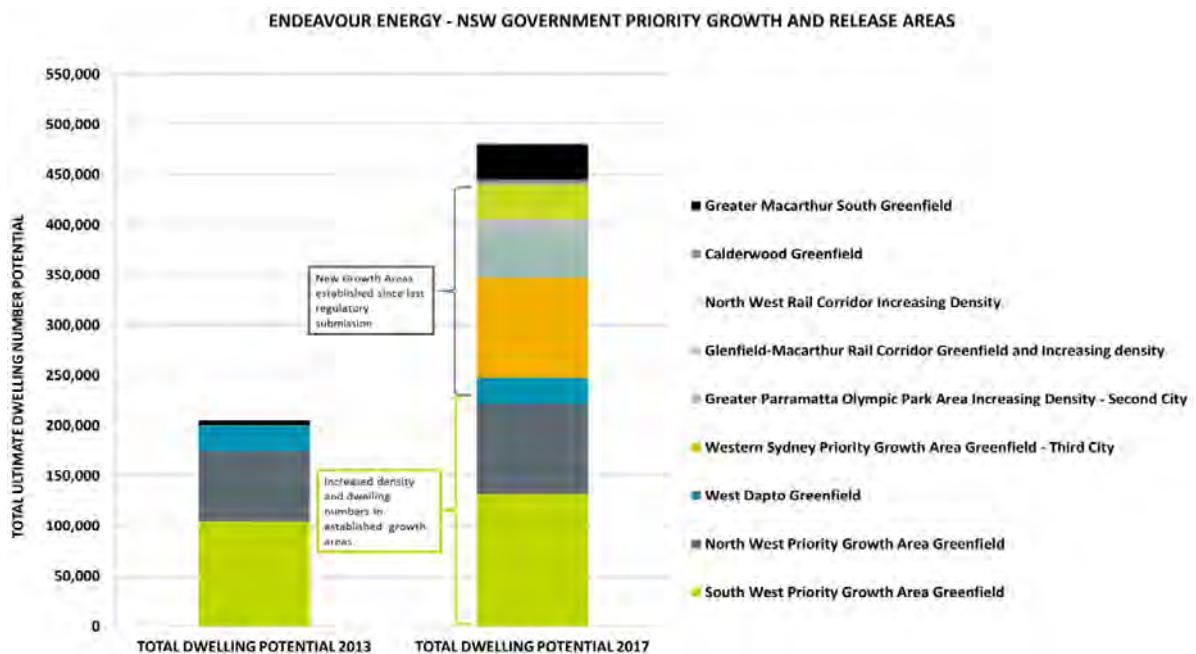
THE BIG PICTURE - GROWTH AREAS IN OUR NETWORK



Growth is occurring right now. Furthermore, the NSW Government has provided new dwelling projections which indicate that the number of customers we will be servicing in growth areas will dramatically increase. This is in part due to rezoning and increased housing density.

We currently connect about **23,000 homes** to the network each year; predominantly in green fields or new growth areas. Independent HIA housing construction data shows **29,000** homes commenced construction in the last year in our service area, triple the number recorded in 2012 (10,000 homes). NSW Government projections indicate that we could potentially connect more than **20,000 homes** each year for the next 25 years.

FORECAST GROWTH RATES



TOTAL DWELLING POTENTIAL

	2013 FORECASTING	2017 FORECASTING
Major Growth and Release Areas	205,000	480,200

ANNUAL GROWTH RATES

	2013 FORECASTING	2017 FORECASTING
Major Growth and Release Areas	8,200	19,208
Rest of Endeavour Energy network	3,000	4,000
Total	11,200	23,208

Figures are approximate

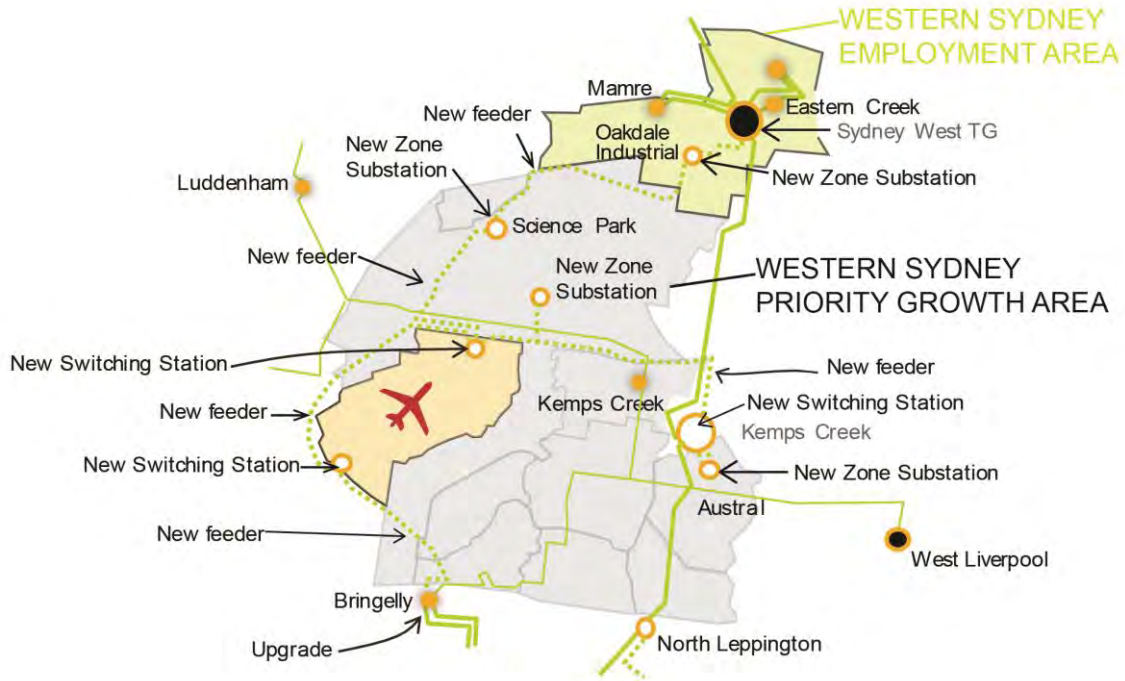
NORTH WEST PRIORITY GROWTH AREA



Project (2019-24)	Dwellings	Industrial Land	Town Centres
South Marsden Park ZS - Stage 2	2,000	317 Ha	None
Marsden Park ZS - Stage 2	13,000	Residential	1
Riverstone East ZS - Stage 1	9,000	100 Ha	1
Box Hill ZS- Stage 1	14,000	122 Ha	2
TOTAL	38,000	539 Ha	4
Ultimate potential	90,000	540 Ha	7-10

1 Ha = 10,000 sqm or 1 football field (approx.)
 Figures are approximate

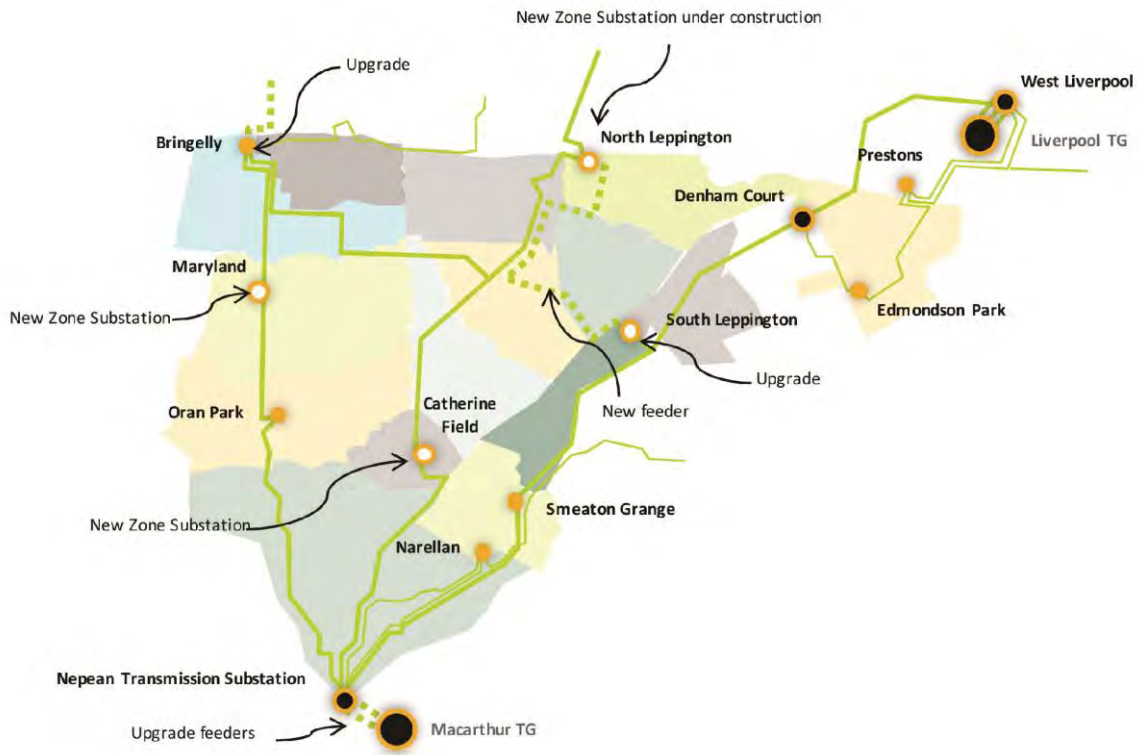
WESTERN SYDNEY EMPLOYMENT AREA & PRIORITY GROWTH AREA / WESTERN SYDNEY AIRPORT



Project (2019-24)	Dwellings	Industrial Land	Town Centres
Southpipe (Oakdale Estate) ZS Stage 1	Industrial	440 Ha	None
Luddenham Sydney Science Park supply Stage 1	3,000	250 Ha	1
Western Sydney Employment Lands ZS	Industrial	300 Ha	None
Western Sydney Airport and surrounding development 132kV supply	Industrial	1674 Ha	1
TOTAL	3,000	2,664 Ha	2
Ultimate Potential	100,000	8,000 Ha	3-5

1 Ha = 10,000 sqm or 1 football field (approx.)
 Figures are approximate

SOUTH WEST PRIORITY GROWTH AREA



Project (2019-24)	Dwellings	Industrial Centres	Town Centres
Edmondson Park ZS	10,600	Residential	1
Maryland ZS Stage 1	22,000	Residential	1
Leppington North ZS	10,000	220 Ha	1
Leppington South ZS Stage 2	14,000	Residential	1
Catherine Field ZS Stage 2	12,500	Residential	1
Nepean ZS Stage 2	10,000	Residential	1
TOTAL	79,100	220 Ha	6
Ultimate Potential	132,000	1000 Ha	15-20

1 Ha = 10,000 sqm or 1 football field (approx.)
 Figures are approximate

GREATER MACARTHUR PRIORITY GROWTH AREA



Project (2019-24)	Dwellings	Industrial Centres	Town Centres
Menangle Park ZS Stage 1	4,000	28 Ha	1
Mt Gilead ZS Stage 1	6,000	Residential	1
South Gilead ZS Stage 1	5,000	Residential	1
TOTAL	15,000	28 Ha	3
Ultimate Potential	35,000	28 Ha	5-7

1 Ha = 10,000 sqm or 1 football field (approx.)
 Figures are approximate

WEST LAKE ILLAWARRA PRIORITY GROWTH AREA



Project (2019-24)	Dwellings	Industrial Centres	Town Centres
West Dapto ZS Stage 1	17,000	20 Ha	2
Calderwood ZS Stage 1	8,000	Residential	1
TOTAL	25,000	20 Ha	3
Ultimate Potential	26,000	20 Ha	3

1 Ha = 10,000 sqm or 1 football field (approx.)
 Figures are approximate

SAFETY

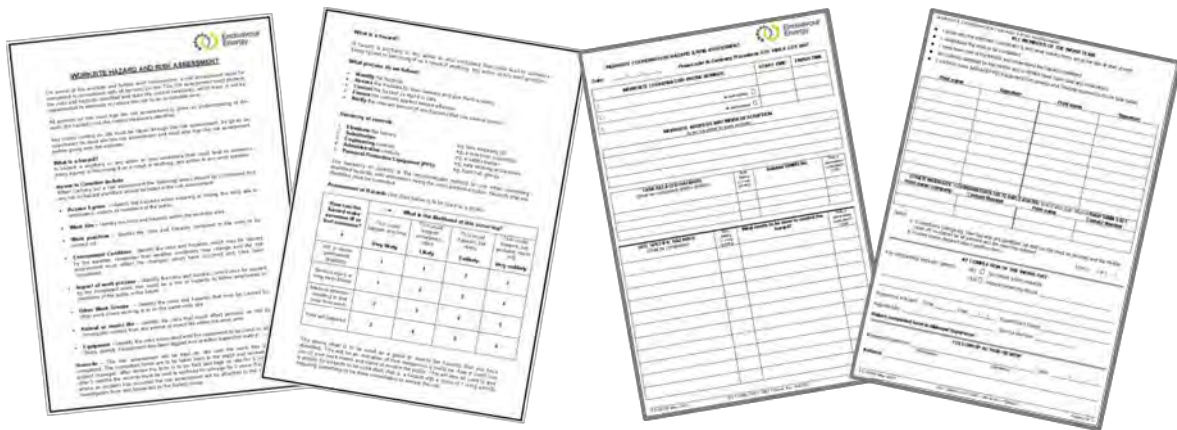
Endeavour Energy is committed to providing a safe place of work for all employees, contractors and visitors. We will not take shortcuts when it comes to safety and are committed to achieving a zero harm workplace.





We want your visit to be a safe one and make sure everyone returns without incident. It is important you read and understand these principles regarding your safety.

Worksite Hazard and Risk Assessment (WHRA)

During the tour we will refer you to the WHRA for the site and ask you to sign on at the first site.

- Documented method to identify and assess hazards: and
- Enables us to establish controls to manage risks at the worksite prior to work.



	<p>At all times, stay with your Endeavour Energy representatives and do not leave the group. There will be a moderate amount of walking and a number of stairs that will be climbed today. If you have a concern please let us know.</p>
	<p>You will be passing live equipment. Do not touch or operate and maintain a safe distance at all times. Keep hands down and/or in pockets near equipment.</p>
	<p>Entry to Endeavour Energy sites requires the following protective equipment: helmet, glasses, gloves and safety vest. Endeavour Energy will provide this equipment.</p>
	<p>Substations have live electrical equipment, DO NOT reach up or point into the air near equipment. Keep hands down and/or in pockets near equipment.</p>

	<p>You must not leave the ground or climb any structure. Maintain a safe distance at all times.</p>
	<p>Umbrellas and other extendable metal items (e.g. camera sticks) are NOT permitted on site. In the event of rain, wet weather attire will be provided.</p>
	<p>Calls are only to be taken when on the bus or during the lunch break or in the event of an emergency.</p> <p>Mobile phones can be used any time to take pictures.</p>
	<p>There are first aid kits and trained first aiders available.</p>
	<p>You must wear suitably enclosed and flat footwear. Entry will be refused to Endeavour Energy sites if inappropriate footwear is not worn.</p>
	<p>Sunscreen protection and insect repellent is available on the bus and at each site as parts of the site visits will be outdoors.</p>
	<p>No smoking on Endeavour Energy sites or the bus. There is a designated smoking area during the lunch break.</p>
	<p>Endeavour Energy requirement that you are not under the influence of alcohol or other substances.</p>
	<p>Use handrails at all times whilst using stairs.</p>



TELECONFERENCE – 2014-19 REMITTAL PROPOSAL

Wednesday, 28 March 2018, 3pm to 4pm

Participants:	Slavko Jovanoski (SJ)	Australian Energy Regulator
	Mike Swanston (LB)	AER Consumer Challenge Panel
	Louise Benjiman (LB)	AER Consumer Challenge Panel
	Mark Henley (MH)	AER Consumer Challenge Panel
	Nic Pasternatsky (NP)	Western Sydney Regional Organisation of Councils (WSROC)
	Oliver Derum (OD)	Energy Consumers Australia
	Miyuru Ediriweera (ME)	Public Interest Advocacy Centre
	Bev Hughson (BH)	Public Interest Advocacy Centre
	Trevor Oldfield (TO)	Greater Blacktown Business Chamber
	Sam Stone (SS)	Urban Development Institute of Australia
	Lesley Scarlett (LS)	Illawarra Pilot Joint Organisation
	Endeavour Energy	
	Andrew Schille (AS)	Endeavour Energy General Manager Regulation and Corporate Affairs
	Kate McCue (KMc)	Manager, Corporate Affairs,
	Jon Hocking (JH)	Manager, Network Regulation
	James Tydd (JT)	Stakeholder & Community Relations Manager

Apologies:	Michelle Caruso (MC)	NSW Business Chamber
	Tim Harrison (TH)	Public Interest Advocacy Centre
	Annie Kiefer (AK)	Country Women's Association (CWA)
	Eric Groom (EG)	AER Consumer Challenge Panel

Notes

1. Purpose

JH thanked participants. JH said the purpose teleconference was to:

1. Present and seek feedback on the key aspects of Endeavour Energy's 2014-19 Remittal Proposal to the AER.
2. Present and seek feedback on a draft Plain English Overview that will form part of Endeavour Energy's 2019-24 regulatory proposal to the AER.

JH confirmed a draft remittal letter, fact sheet and 2019-24 Overview had been provided to participants prior to the teleconference.

2. 2014-19 Remittal Proposal

JH outlined remittal proposal. Key points.

- Remittal seeks to return in order of \$239m in revenue received above 2014-19 determination.
- Retain no more than \$110m of revenues recovered under the undertakings in 2018/19 dollar terms.
- EE had adopted AER decision on gamma.
- Adoption of the AER's 2013 Rate of Return Guideline, including the application of a transition to the trailing average for the 2014-19 and 2019-24 regulatory control periods. EE committing to the application of WACC in its entirety for this period and into the next regulatory period, recognising legislation currently out for consultation that may have implications, binding to point estimate.

There were several questions seeking clarification on key figures of the remittal.

LB clarified that as a result of remaking decision there had been a level of over recovery and \$110m would be

retained by EE. AS said the \$110m would in effect be an adjustment which sought to settle a legal dispute. OD said he was concerned about the link between amount of over recovery that would be retained by EE.

MH said understanding the \$110m was important. He sought clarification on the benefits to consumers of the remittal proposal. JH said if the legal dispute continued the figure retained could have been in excess of \$400m. LB said it was important to focus on the benefits of why the remittal was good for customers, rather than that EE could have retained a higher figure. JH said EE was essentially seeking a trade-off to bring resolution to a long and protracted issue.

LB gave in-principle support for the remittal proposal and said it was CCP's view that letters from key stakeholders outlining their views on the remittal proposal were important in the engagement process. She was satisfied the points on pages 3 and 4 of the remittal letter had set out the benefits for customers.

OD said the final word on ECA's opinion regarding the remittal will have to come from (ECA CEO) Rosemary Sinclair.

NP agreed the dot points on 3 and 4 were clear. LS agreed and said they provided certainty particularly around prices and this was a positive message to give to customers.

BH said a better way to read to outline the \$110m was to say: whatever the amount of the over recovery is, we will retain \$110m and the remaining balance will be returned to customers i.e. be clear the \$110m is fixed. JH clarified that the balance would be returned to customers, offset in next period.

LB asked whether the AER had agreed with calculation of remittal amounts and whether there had been any issues on the calculation of forecasts and over recovery. JH said EE had stepped the AER through the figures. AS said he did not think there had been any issues from the AER regarding the calculations.

LB said it was EE needed to emphasise in the letter (to the AER) that the \$110m won't change and the balance of the difference will be passed through to consumers.

BH sought clarification on 2013 Rate of Return Guideline figure for gamma. JH took question on notice.

ME said he 'could not see any red flags' in relation to the remittal but would have to check with his colleagues Craig Memery and Tim Harrison before PIAC made a formal submission.

MH said he was happy with what had been discussed and asked about the next steps. JH said EE would use the feedback and update the fact sheet infographics as required. Subject to no further material changes the remittal would be lodged with AER. JH said EE would circulate a revised letter and infographic. LB said once lodged with AER she expected the letter and infographic to be distributed to participants of the teleconference who would write to AER outlining their view on the remittal. LB commended EE investors on taking their position on the remittal proposal.

Discussion regarding remittal concluded.

Participants had several queries and some mixed feedback regarding item (2) 2019-24 Plain English Overview. Due to time constraints it was decided that discussions about the overview should be held at a later date.

Teleconference ended.



AER CONSUMER CHALLENGE PANEL

**ENGAGEMENT Q & A
10 NOVEMBER 2017**

1. What have you heard from your consumer engagement so far?

1. Affordability

Electricity affordability is the greatest concern for our customers. Value is defined through the security and lifestyle benefits it provides to residential customers and communities, and through timely decisions that facilitate economic growth. There's a clear expectation Endeavour Energy's plans should reflect measures to keep downward pressure on electricity prices.

2. Reliability

Reliability is considered very good and so peak stakeholder groups expect Endeavour Energy to have strong empirical evidence to justify future expenditure plans, particularly for capex. Price service trade-offs do not indicate a willingness to trade lower bills with lower reliability.

3. Energy security

Customers are concerned about a South Australian style blackout and want us to ensure this does not occur.

4. Tariff design

Customers were generally supportive of Endeavour Energy's plans to transition new customers to TOU tariffs with a demand charge, although the most vulnerable customers appeared to prefer flat tariffs due to their simplicity and a preference to avoid demand tariffs. Some small businesses believed they had little scope under TOU pricing to change their usage and reduce their bills, as they had fixed hours of operation. Peak consumer groups cautioned Endeavour Energy to avoid large increases to its fixed service charge.

Many find tariffs hard to understand. We need to keep tariffs simple for retailers if they are to pass on cost reflective price signals and be able to sell TOU effectively in the marketplace. While regulators have adopted a clear delineation about the role of network and retail businesses, this is not necessarily shared by retailers, and certainly not understood by customers. Networks will experience increasing pressure to be seen as part of the solution to educating customers.

5. Meeting growth, particularly across priority growth areas

Business groups, councils and developers want timely construction of new networks to facilitate housing, jobs and growth. Councils throughout our franchise area, the Western Sydney Leadership Dialogue, Chambers of Commerce, and the Urban Development Institute of Australia have clearly advocated this as a priority.

6. Future of the grid, choice and control

Solar is seen as ideal for customers, and batteries are seen as the final technology needed to wrest back control of electricity bills. Stakeholders expect Endeavour Energy to be innovative and trial new technologies associated with distributed energy resources and demand management, largely to keep downward pressure on capital expenditure, and to prepare the grid for customers' future technology choices.

7. Street lighting

Councils are keen to quickly transition to LEDs. They want street lighting tariffs that reflect the lower maintenance costs of LEDs.

8. Vegetation Management

Customers generally want us to maintain the status quo with vegetation management. Safety should not be compromised for appearance. Councils would like to see less aggressive trimming and further consultation on the nature of tree trimming.

9. Vulnerable customers

Vulnerable customers want us to keep network costs as low as possible. Assisting the vulnerable is seen as the responsibility of the whole energy sector, particularly retailers. Customers have told us we should focus on assisting life support customers in particular.

10. Trust deficit

Customers aren't sure who to trust. They generally don't trust retailers because they are suspicious of their motives. Customers don't know where to access information and advice on metering, tariffs and batteries.

2. How has your consumer engagement impacted on your regulatory proposal?

Affordability	
What we have heard...	How this feedback has impacted our proposal...
<p>Affordability is the key issue for all customers and stakeholders.</p> <p>Customers want Endeavour Energy to keep its share of charges as low as possible so as to assist all customers, including the vulnerable.</p> <p>We recognise too that the most vulnerable customers prefer no increase to our portion of their bill.</p> <p>Most retailers don't believe it is Endeavour Energy's responsibility to offer hardship tariffs, and most are revising their hardship products.</p>	<ul style="list-style-type: none"> • In our Directions Paper we said that our overall plans would add a one per cent increase per annum to the average customer's bill in real terms. This would equate to a 5 per cent real increase in the 2019-24 period. • We have adopted the AER's valuation of imputation credits (gamma) and cost of debt methodology, meaning our WACC has been calculated in accordance with the AER's Rate of Return Guideline. • We have achieved the AER's benchmark opex cost in this current period, and will continue to reduce our average opex cost per customer throughout the period – this is in line with feedback from stakeholders that affordability is paramount. • We will continue to pursue efficiencies in accordance with the incentive-based regulatory framework. We will absorb all forecast step changes in opex. • We will help send price signals to customers and manage the transition to cost reflective pricing by introducing a demand tariff for new customer connections and replacement meters with an opt out option. • We will continue to connect new customers to the network in a timely fashion and facilitate the connection of distributed energy resources including solar and batteries. This will help reduce overall costs and prices over the longer term. • We will continue to engage and educate customers on the benefits of changing their usage to reduce costs through programs like <i>SolarSaver</i> and <i>CoolSaver</i>.
Cost reflectivity / Tariff Design	
What we have heard...	How this feedback has impacted our proposal...
<p>Customer feedback indicates support for transitioning to seasonal TOU pricing and/or seasonal TOU demand pricing, due to potential savings. The vulnerable customer segment appeared to support flat tariffs.</p> <p>AER feedback and peak consumer group feedback from our previous determination wanted us to transition to a TOU tariff with 'opt out' option. Peak consumer groups supported transparent, predictable, efficient and equitable tariff options.</p> <p>Retailers understood the benefits of cost reflective pricing, but they were concerned about their implementation in the marketplace. They preferred 'simple' tariffs and were concerned as to how they would 'sell' a relatively more complex seasonal TOU demand tariff so that customers transitioned to this form of pricing. Large retailers also expressed a preference for uniform tariffs across the Sydney Basin.</p>	<ul style="list-style-type: none"> • We're committed to helping customers' manage their energy usage by promoting cost reflective pricing, while taking steps to minimise the impact on the most vulnerable customers by limiting increases in the fixed component of the bill. We've responded to feedback from stakeholders on our last regulatory proposal and initial Tariff Structure Statement and will continue the transition to TOU demand tariffs with an 'opt out' option. • We will work with retailers to help educate customers on tariff choices and consider further targeted research programs to better understand ways to effectively educate consumers. • We will participate in, and actively pursue the establishment of an industry working group to facilitate uniformity of tariff design in response to retailers' feedback. It was not feasible in this proposal, due to the organisational changes across the three networks.

Reliability	
What we have heard...	How this feedback has impacted our proposal...
<p>Customers were generally satisfied with current reliability; where customers, on average, have supply 99.9% of the time.</p> <p>Most customers wanted reliability to be maintained. Some supported an average annual improvement of 3 mins, at a cost of \$3-\$4 increase in annual network charges.</p> <p>Customers generally did not want to pay less for decreased reliability if it meant future maintenance costs would lead to larger future price increases.</p>	<ul style="list-style-type: none"> • We have heard feedback from peak stakeholder groups that we should not be investing to improve reliability. We recognise too that the most vulnerable customers prefer no increase in our portion of their bill. As a result, we have decided to focus on maintaining reliability across the network at the current five year average performance. • Improvements to reliability will be limited to the poorest performing areas, in accordance with licence conditions. • We support the AER's position that the Service Target Performance Incentive Scheme (STPIS) incentive rate in NSW should be increased to align with all other Distribution Network Service Providers (DNSPs) in the National Electricity Market (NEM). This will impose greater discipline to maintain existing service levels while reducing our costs. • We will continue to trial and assess the benefits of new technology, like battery storage, so that reliability is not compromised as we connect these technologies in line with the Electricity Network Transformation Roadmap (ENTR).
Energy Security	
What we have heard...	How this feedback has impacted our proposal...
<p>Customers have a genuine concern that we avoid a South Australia-style blackout.</p>	<ul style="list-style-type: none"> • Our customers and peak stakeholders expect us to develop robust asset management strategies, and to make prudent and justifiable network investments. Our capex and opex plans are designed to deliver a safe, reliable and secure network. • We will continue to promote demand management technologies to delay and/offset capital investment. We plan to roll out battery storage initiatives, like our existing trials in West Dapto and Sydney's North West to enhance network resilience during significant weather events. • We have proposed cost-reflective pricing with a demand component which should motivate customers with these tariffs to reduce their peak demand and so reduce strain on the network during periods of excessive heat.

Servicing Growth

Our capital expenditure has two main drivers.

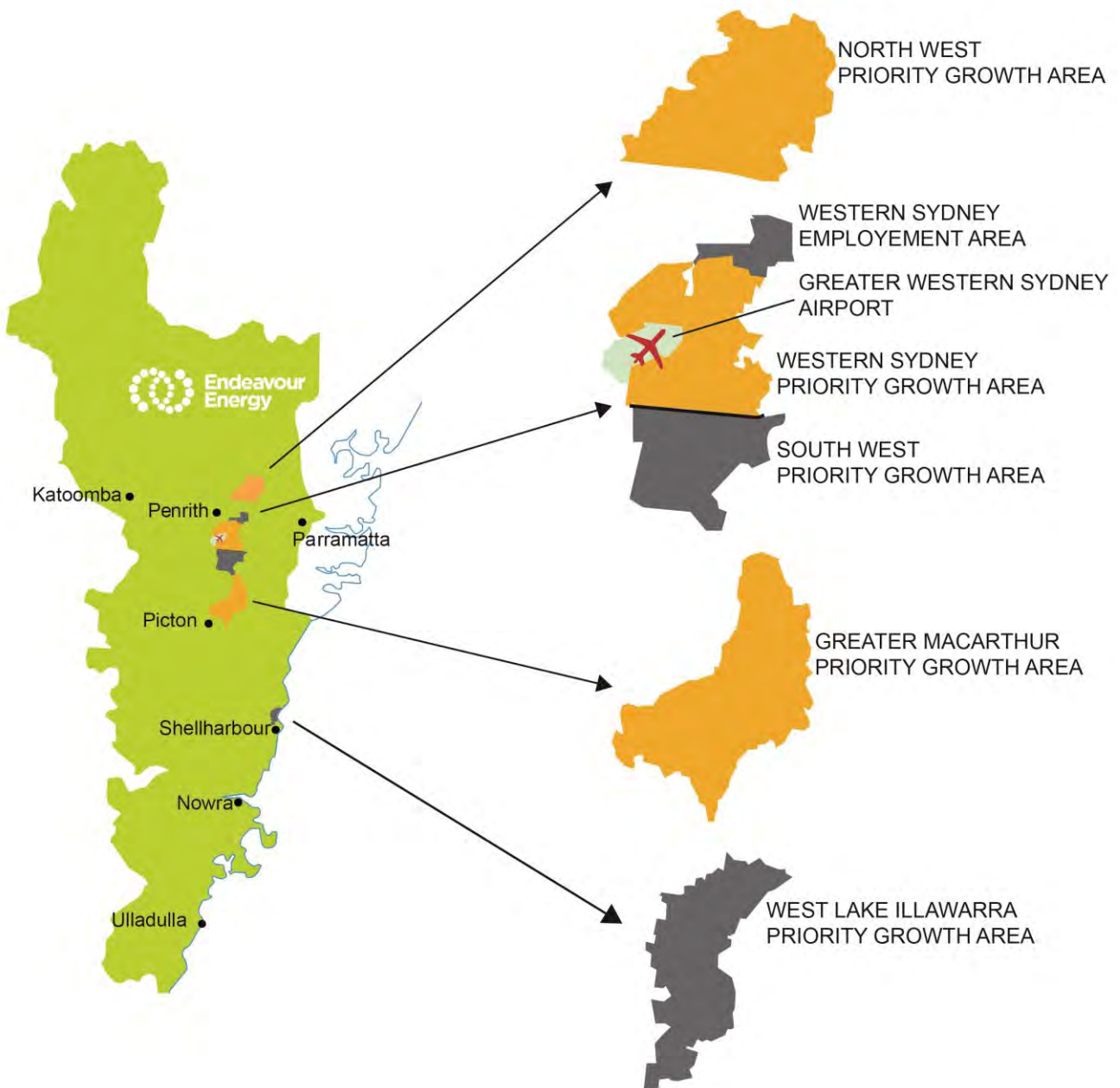
The first is expenditure to increase the size of the network to service new growth areas.

We face a unique set of circumstances as the Endeavour Energy network currently contains five main priority growth areas marked by the NSW Government.

Such growth significantly increases the size of the network required to supply safe and reliable electricity to our customers.

For example, our network includes the North West and South West priority growth areas, which are projected to accommodate 500,000 new residents, the equivalent to two cities the size of Canberra and Wollongong, over the next 30 years.

The population of Greater Western Sydney alone will grow by **1 million** people between 2011 and 2031, an increase of **46 per cent**.



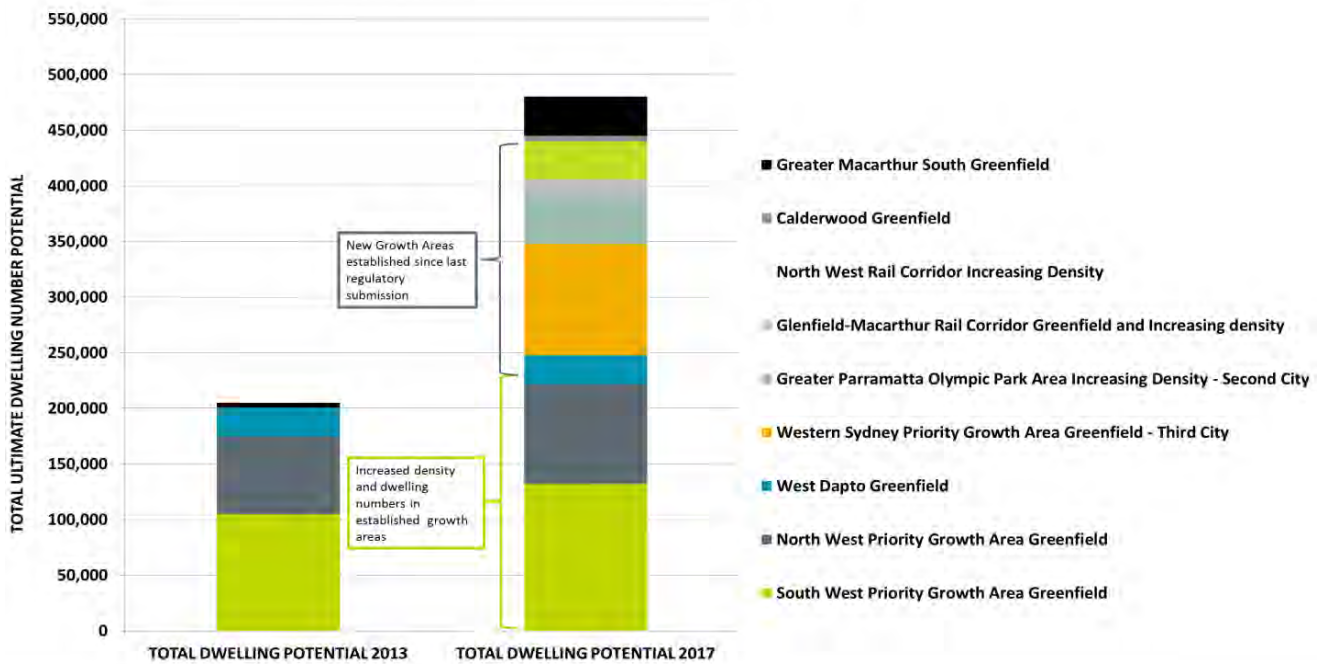
Servicing Growth

The **NSW Government** has provided new dwelling projections which indicate that the number of customers we will be servicing in growth areas will dramatically increase. This is in part due to rezoning and increased housing density.

We currently connect about **8000-10,000 homes** to the network each year; predominantly in green fields or new growth areas. NSW Government projections indicate that we could potentially connect more than **23,000 homes** each year for the next 25 years.

As a result, building the network to service this demand will be a major focus for us in coming years.

ENDEAVOUR ENERGY - NSW GOVERNMENT PRIORITY GROWTH AND RELEASE AREAS



TOTAL DWELLING POTENTIAL

	2013 FORECASTING	2017 FORECASTING
Major Growth and Release Areas	205,000	480,200

ANNUAL GROWTH RATES

	2013 FORECASTING	2017 FORECASTING
Major Growth and Release Areas	8,200	19,208
Rest of Endeavour Energy network	3,000	4,000
Total	11,200	23,208

The second major driver of capital expenditure is replacement of existing assets or 'replex'. We have been driving assets hard in the last 10 years but propose to replace aging assets in a more sustainable manner.

Servicing Growth

What we have heard...	How this feedback has impacted our proposal...
<p>There has been strong feedback from local councils for timely delivery of electricity infrastructure in new growth areas to maintain reliability. They emphasised the importance of growth to their local economies and wanted to make sure adequate investments were made to support growth.</p> <p>Business advocates and developers like UDIA would welcome faster completion rates of homes to stimulate business opportunities for its thousands of stakeholders. They welcome initiatives that lead to faster start to completion rates for new homes. Reduced delays would lead to greater housing affordability.</p> <p>Customer advocacy groups like PIAC argue we need to have a strong empirical evidence for capex, and suggested large projects be considered 'contingent' projects.</p>	<ul style="list-style-type: none"> • We consulted on our proposed capex plans at a holistic level, but we also set out our major investment plans across growth regions. Our plans are designed to improve the timeliness of investments in growth areas in response to council and developer feedback. <p>Our growth capex forecast is based on prudent practices and is evidenced-based to ensure it is efficient, realistic and timely. Specifically, we:</p> <ul style="list-style-type: none"> • forecast demand, energy and customer growth using a combination of top-down and bottom-up methods utilising the latest available information. • forecast expenditure requirements using the AER's top-down models, and calibrated and tested this against our detailed plans. We adopt whichever value is lower as our capex forecast. • utilise existing network capacity (where feasible) or temporary substations (including mobile substations) to stage the deployment of supply infrastructure in alignment with the staging of the land development and its uptake • investigate and utilise non-network options to defer or reduce the capex required for each project through the RIT-D • coordinate growth investments with asset renewal projects to achieve scope efficiencies • employ an estimate of expected development based on historical rates and discussions with the State Government, local councils and developers. <p>We also considered feedback which suggested growth in the network be classified as contingent projects, however we found we could not because our projects did not meet the required threshold or criteria, and this mechanism would delay the development of required, critical infrastructure.</p>

Future of the Grid

What we have heard...	How this feedback has impacted our proposal...
<p>Customers are keen to know more about smart meters and batteries as a means to managing their consumption and their reducing bills. They would like Endeavour Energy to prepare the network so it can meet customers' future energy choices and needs.</p> <p>Customers expect Endeavour Energy to embrace the direction of the ENTR. They expect us to increase investment in trials and encourage distributed energy resources through efficient tariff arrangements. They want us to continue battery research programs in order to understand the value proposition to the networks, which in-turn can be passed on to customers.</p> <p>Retailers have a clear view that 'behind the meter' belongs to them. They have requested that we partner with them to explore the adoption of new technologies like battery trials by customers.</p> <p>Local councils have shown strong support for investment in new 'greener' technology - like extending battery storage trials to include council and commercial premises. Councils are committed to sustainability and greenhouse gas reductions and support the ENTR, including increasing the use of renewable technologies. Councils welcomed demand responses to climate change.</p>	<ul style="list-style-type: none"> • Endeavour Energy recognises that the way customers want to connect to, and interact with, the grid is changing. We are committed to placing customers at the centre of our decisions and helping them better understand how to manage their energy usage. The ENTR sets out the industry's long-term plan to respond to changing technology and we are committed to supporting the roadmap. • Our proposal to implement a TOU demand tariff will align with the ENTR's vision of more choice and control, and less need for network investment in the long run. • Following our Directions Paper we increased our engagement with councils. We will explore opportunities to partner with them on technology trials and initiatives to reduce urban heat. We intend to continue this more active approach through the 2019-24 regulatory period. • We will continue to prudently invest in new technologies to improve our automation, protection and asset information, communication and monitoring systems. This will improve our planning decisions and asset management capability. It will also increase our capacity to host distributed energy resources (including electric vehicles) and utilise demand-side response to manage network demand. • We will continue to utilise the AER's Demand Management Incentive Scheme and Demand Management Innovation Allowance to investigate demand management pilots and trials to provide our customers with demand management options. We are willing to partner with third parties (such as consumer groups, councils, retailers) in designing and implementing new technology trials.

Vegetation Management

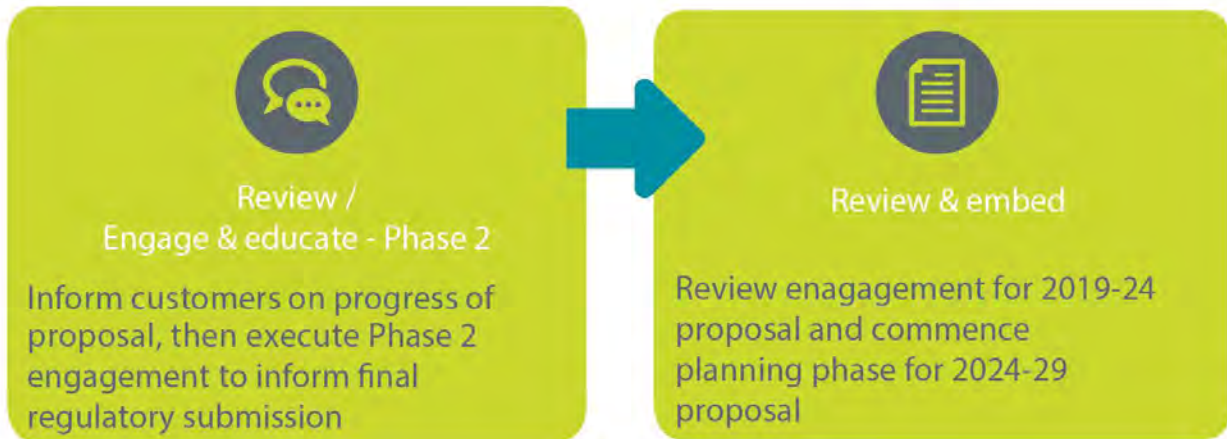
What we have heard...	How this feedback has impacted our proposal...
<p>Most customers accept the need for current tree trimming practices. Some want to see Endeavour Energy work more closely with local councils to change the types of trees planted under power lines or to underground lines where possible, albeit noting prohibitive costs.</p> <p>The NSW Rural Fire Service is supportive of our commitment to bushfire prevention.</p> <p>Councils said we could work more closely with them to better balance safety and amenity. Initiatives tabled included tree replacement and appropriate species selection.</p>	<ul style="list-style-type: none"> • We will partner with councils to examine how we might jointly promote planting of appropriate species under power lines and fully support relocation of assets at their cost. • Feedback supports our current approach on vegetation management and bushfire prevention. • We will continue to employ LiDAR technology and aerial patrols to identify trouble spots where trees may impact reliability and act on these areas as a priority.

Street Lighting	
What we have heard...	How this feedback has impacted our proposal...
<p>Councils: Strongly support roll out of LEDs. Endeavour Energy should provide a clear plan for LED replacement in its proposal.</p> <p>Have encouraged us to explore new technology like multi-purpose streetlights incorporating smart signs or CCTV, or solar panels to power streetlights.</p> <p>Encouraged Endeavour Energy to release its proposed 2019-2024 street lighting pricing model to councils at the outset of the 2019-2024 pricing review process, including all underlying assumptions.</p> <p>Encouraged Endeavour Energy to aid council decisions on future technology choices, by providing councils with comprehensive local and network-wide data on spot repairs and spot replacements by technology type, as well as night patrol reports and bulk lamp replacement data.</p>	<ul style="list-style-type: none"> • We understand councils' concerns to deliver efficient street lighting charges and will partner with government agencies to facilitate the efficient transition to LED technologies. We are committed to passing through savings to councils as we make that transition. • We have modified our Street Lighting Use of System (SLUoS) tariff so that the charge reflects a lower maintenance cost. • We will review our engagement program with councils, particularly around economic development planning.
Vulnerable Customers	
What we have heard...	How this feedback has impacted our proposal...
<p>Customers have encouraged Endeavour Energy to do more to assist life support customers. Many also supported the provision of educational materials in various formats.</p> <p>Most customers believe the responsibility to support the most vulnerable lies with the whole energy sector, particularly retailers.</p> <p>Stakeholders are opposed to increasing fixed charges as this could unfairly disadvantage those with low usage, like the elderly; who do not use the same amount of electricity that large consumers do and therefore do not contribute as much to peak demand.</p> <p>Most retailers don't believe it is Endeavour Energy's responsibility to offer hardship tariffs, and most are revising their hardship products.</p>	<ul style="list-style-type: none"> • We've heard stakeholder feedback about affordability for the most vulnerable customers and removed the Inclining Block Tariff from July 2017. We also revised our plans about changes to fixed charges and instead will keep increases to a minimum. • As a network business, we will focus on minimising the risk of outages for life support customers. • We will continue to roll out our overall efficiency program and will seek to reduce costs for the business; which translates to savings for our customers.
Engagement and Education	
What we have heard...	How this feedback has impacted our proposal...
<p>Local councils have requested early consultation and more ongoing consultation in the planning process, particularly in new growth areas, so that the roll-out of infrastructure assets is coordinated and future asset relocations are minimised.</p> <p>Retailers have requested assistance in making tariffs simple.</p> <p>AER is seeking a frank, respectful and open conversation on key components of our regulatory proposal ahead of its submission.</p>	<ul style="list-style-type: none"> • We will continue to strengthen our relationship with Regional Organisations of Councils to assist them in their various local government initiatives - like reducing urban heat, street lighting and vegetation management. • We plan to expand our engagement program to work more closely with retailers on customer education, so as to help customers understand tariffs. • We will review Endeavour Energy's Customer Consultative Committee charter and membership to reflect changes in the industry and consumer interests.

3. What further consumer engagement is planned?

June 2017 to Dec 2018

Dec 2018 to June 2019



What's coming up	What's coming up
- CCC meeting & site visit to NW Growth Centre (22 Nov 2017).	- Initiate feedback loop to link engagement findings with our final regulatory proposal
- Stakeholder feedback forum: how feedback has informed initial proposal (Dec 2017).	- Independent review of engagement for 2019-24 proposal. Implement findings.
- Audit of engagement against AER guideline & and National Electricity Rules. Plan to implement recommendations.	- Commence planning phase and map stakeholders
- Your Say feedback loop online - what people said and what we have proposed.	
- Initial regulatory proposal submission and Overview Paper (31 Jan 2018).	
- Seek feedback from stakeholder groups on engagement for our initial regulatory proposal. Assess and action improvements (Feb/March 2018)	
- AER public forum (April 2018).	
- Review and embed engagement processes in day-to-day operations	

4. What have you learned from your consumer engagement processes so far?

(i) What has worked well

a) *Peak consumer group engagement*

Smaller, more frequent meetings with peak consumer groups (listed below) on specific issues, at a time and location of their choosing, has helped to rebuild our relationship, strengthen trust, understand priorities and refine areas for further engagement. We'd like to do more of these, and more regularly.

- AER's Consumer Challenge Panel (CCP)
- Public Interest Advocacy Centre
- NSW Council of Social Services
- Energy Consumers Australia
- Ethnic Communities Council, and
- Total Environment Centre

b) *Feedback from the Consumer Challenge Panel*

Frank, constructive and challenging feedback has directly influenced our approach to engagement and generated positive outcomes.

c) *Increased executive involvement*

The independent review of engagement conducted in mid-2016 found that both internal and external participants interviewed were keen to see members of our Executive Leadership Team more actively engaged with key stakeholders and customers. We actioned this, with Executives attending peak consumer group meetings, meetings with stakeholders on our Directions Paper, and Acting CEO Rod Howard being the main presenter at our test focus group and deliberative forums. Executives also attended all focus groups and forums. They have been able to listen to the priorities and concerns of our customers and stakeholders first hand, and their knowledge has been crucial in explaining key concepts and building trust with customers and stakeholders.

d) *Customer segmentation and the quality of the conversations at the ten focus groups*

In May 2017, ten customer focus groups involving up to ten residential and small to medium business customers were held to generate customer priorities and understand attitudes about electricity. Significant effort was invested to explain complex issues, and this helped to test and distil our thinking on our tariff strategy, to test some of the material used to inform and educate customers, and seek feedback on areas that could be improved ahead of the deliberative planning forums. Feedback was used to inform our Directions Paper and findings were also used to shape proposed content for two larger deliberative planning forums held in August.

e) *Test focus groups and CCC engagement regarding materials for forums*

These two engagement activities were conducted in the two weeks leading up to the deliberative forums. We road tested the discussion guide and the customer materials which we planned to present to customers regarding price/service trade-offs and tariff options. Feedback from the AER Consumer Challenge Panel, and Energy Consumers Australia in particular led us to revisit communications around tariff options and price/service trade-offs presented to customers. This feedback fundamentally changed aspects of the presentation and materials for the better.

f) *Tariff research*

Research with QUT and City Smart on behavioural approaches to electricity pricing was extremely useful. Approval was sought to use a simple infographic video with great effect to explain TOU pricing.

g) *Directions Paper*

This new initiative generated positive feedback from all stakeholders we approached. It has strengthened our alignment with the AER consumer engagement guideline by providing greater transparency, and helped to generate detailed comment from those we met with. Our detailed communications plan actioned to support the Directions Paper targeted priority stakeholders and garnered some strong feedback from councils, urban development groups and retailers which has been used to develop our proposal.

h) Online community

Customers had expressed relatively low levels of understanding of industry structures during our focus groups, so in the week prior to our deliberative forums we hosted an online community for the 95 customers who attended the deliberative forums in Wollongong and Parramatta. The community was designed to both educate customers about the role of Endeavour Energy and attain feedback through questions and activities related to their electricity usage, plans for solar and batteries, desire to adopt new technology, vehicles, reliability and future grid.

i) Deliberative planning forums

This has been a key piece of engagement which is central to our proposal and has helped to build our understanding of consumer preferences on tariffs in particular. Around 25 Endeavour Energy managers attended as table observers, subject matter experts and presenters. The forums provided another engagement avenue for those responsible for planning and helped understand the reaction of customers to our preliminary thinking.

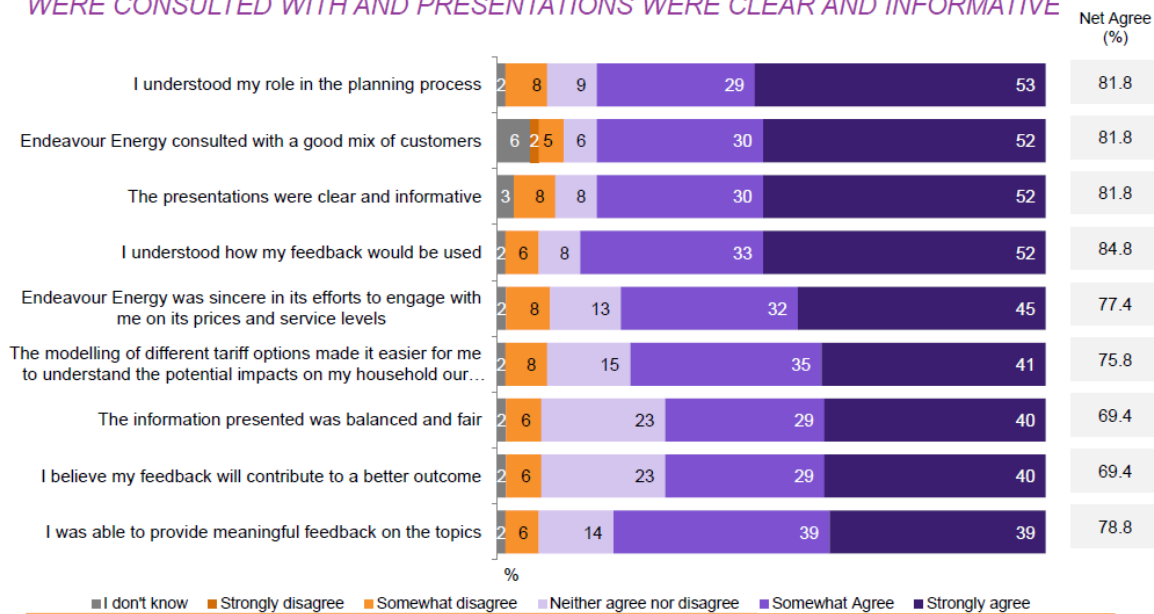
Around 100 end use customers segmented over vulnerability, solar and small to medium enterprises explored key themes of safety, reliability and affordable electricity, our plans to meet electricity demand in new growth areas, and enabling customers' future energy choices.

j) Online survey

In the days after the deliberative forums, participants were surveyed online and provided valuable feedback on the quality of the engagement in particular. The survey results provided a good indication of how our engagement with residential and small to medium enterprises is progressing and has helped identify areas of improvement. Some of the survey findings are below.

CUSTOMER EVALUATION OF THE CONSULTATION

THE BROAD MAJORITY AGREED THAT THEY UNDERSTOOD THEIR ROLE IN THE PROCESS AND HOW THEIR FEEDBACK WOULD BE USED, A GOOD MIX OF PEOPLE WERE CONSULTED WITH AND PRESENTATIONS WERE CLEAR AND INFORMATIVE



Base: (n=66), all participants who responded to the online exit survey. Q. To what extent do you agree or disagree with the following statements?

(ii) Areas for improvement

a) Long term planning

We need to start sooner to allow sufficient time for complex issues to be considered by complex organisations. Planning for the transaction absorbed significant leadership time and resources in 2016 which meant plans for the regulatory determination and related engagement were not as well developed as we would have liked them to be. This had an inevitable flow on effect to planning engagement and giving sufficient notice to stakeholders. Our Directions Paper was a great initiative but required a three/four month implementation period and we had allocated four weeks.

b) Greater notice of future engagement activities

Feedback has indicated better communication of dates and timeframes of our upcoming engagement activities, so as to increase participation and provide key stakeholders with an understanding of the initiatives Endeavour Energy is undertaking. We are continually assessing our engagement activities and will more proactively communicate upcoming initiatives so as to address this feedback.

c) Use of feedback

In late November and early December, we're planning feedback loops on how customer and stakeholder feedback has been used to influence our proposal, and where it hasn't influenced the proposal, why not.

We will host a CCC meeting on 22 November 2017 where our engagement findings and their impact on our proposal will be outlined. There is also a stakeholder forum planned for December 2017 to provide this feedback loop.

d) Improving knowledge and understanding

Customers have relatively low levels of understanding of industry structures. Many were confused about the reasons for recent price increases. Further education around the different sectors of the industry and how they contribute to a bill is required. We will look to address this in Phase 2 of our engagement.

e) Engagement around cost reflective tariffs, metering and peak demand

Retailers are under significant political pressure and this has limited opportunities to engage with them on the Directions Paper. We arranged face-to-face meetings in Melbourne with our top six retailers to resolve this.

Large retailers told us they would like a universal approach to tariffs from the three NSW networks, citing Endeavour Energy and Ausgrid in particular. They would like consistent tariff structures across network boundaries. They were concerned about the complexity of TOU tariffs with a demand charge component. They informed us that this would be difficult to 'sell' to customers due to their complexity and noted call centre operators had to sell such tariff offerings in less than two minutes. We will participate and actively pursue the establishment of an industry working group to facilitate uniformity of tariff design in response to retailers' feedback.

f) Pressure from businesses, councils and business advocacy groups to do more, and faster

Building the network to support future growth, particularly in the five main priority growth areas – North Western Sydney, Western Sydney, South Western Sydney, Greater Macarthur and West Lake Illawarra – is clearly a significant priority for councils, business, developers and business advocacy groups and is a key driver for capex. We will continue strong engagement with councils to support them in rolling out LED street lighting and other 'greener' technologies.

g) Engagement with Culturally and Linguistically Diverse (CALD) communities

We estimate that about one third of our customers live in a household where two or more languages are spoken. Census data indicates that within our network Arabic, Mandarin, Cantonese, Vietnamese and Greek are most frequent languages spoken at homes other than English. Multicultural NSW continues its long-running membership on our CCC. In an effort to improve engagement with CALD communities, we have also approached the Ethnic Communities Council to join our CCC and will work with them in future to strengthen our relationship with this customer segment.

h) Key Performance Indicators

An internal audit of our engagement against the AER guideline & and National Electricity Rules is close to completion. One of the recommendations is that we set measurable KPIs for engagement to demonstrate results.

5. How satisfied are you with your engagement so far?

There's always room for improvement. We still have some way to go to embed engagement in day-to-day business processes, and are working with our strategy team around an external engagement program to underpin business plans for 2019.

Initial feedback indicates that our engagement has improved since our last regulatory determination. Our strategy to more proactively engage key stakeholders early and more regularly has strengthened our understanding of their views and priorities and allowed us to more effectively use their feedback to inform our plans.

We have some outstanding actions we need to implement from our independent review which will be a focus for throughout 2018, along with internal audit recommendations.

Engagement Phase 2
January 2018 - April 2018
Summary of findings



CUSTOMER AND STAKEHOLDER ENGAGEMENT PLAN: PHASE 2.

DECEMBER 2017 TO DECEMBER 2018

Aim

Endeavour Energy's engagement goal is to achieve better outcomes for customers. We will achieve this by reaching agreement with key stakeholders on the price service compact so that the AER accepts the regulatory submission proposed by Endeavour Energy and its stakeholders.

Background

Endeavour Energy's central focus in developing its 2019-24 regulatory proposal is to align our future plans with the long-term interests of the 2.4 million people who depend on us every day for a safe, reliable and affordable electricity supply.

In order to develop more robust, evidence-based plans for the 2019-24 period, we have sought the AER's approval to extend the submission date to no later than 30 April 2018. The accompanying letter outlines several reasons for the extension, including allowing more time to action requests from key stakeholders to undertake more detailed engagement on our opex and capex plans.

This plan sets out engagement to be completed through to April 2018, and then outlines the foundations of a longer term approach to engagement linked to the major driver of Endeavour Energy's capex plans – unprecedented growth across Western Sydney.

What we have heard so far...

Through consultation to date, customers have told us that the following issues are a priority for them in terms of their energy needs.

1. Affordability

Electricity affordability is the greatest concern for customers. Value is defined through the security and lifestyle benefits it provides to residential customers and communities, and through timely decisions that facilitate economic growth. There's a clear expectation Endeavour Energy's plans should reflect measures to keep downward pressure on electricity prices, and enable greater choice and control over their energy decisions.

2. Reliability

Reliability is considered very good and so peak stakeholder groups expect Endeavour Energy to have strong empirical evidence to justify future expenditure plans, particularly for capex. Price service trade-offs do not indicate a willingness to trade lower bills with lower reliability.

3. Energy security

Customers are concerned about a South Australian style blackout and want us to ensure this does not occur.

4. Tariff design

Customers were generally supportive of Endeavour Energy's plans to transition new customers to TOU tariffs with a demand charge, although the most vulnerable customers appeared to prefer flat tariffs due to their simplicity and a preference to avoid demand tariffs. Some small businesses believed they had little scope under TOU pricing to change their usage and reduce their bills, as they had fixed hours of operation. Peak consumer groups cautioned Endeavour Energy to avoid large increases to its fixed service charge.

Many find tariffs hard to understand. We need to keep tariffs simple for retailers if they are to pass on cost reflective price signals and be able to sell TOU effectively in the marketplace. While regulators have adopted a clear delineation about the role of network and retail businesses, this is not necessarily shared by retailers, and certainly not understood by customers. Networks will experience increasing pressure to be seen as part of the solution to educating customers.

5. Meeting growth, particularly across priority growth areas

Business groups, councils and developers want timely construction of new networks to facilitate housing, jobs and growth. Councils throughout our franchise area, the Western Sydney Leadership Dialogue, Chambers of Commerce, and the Urban Development Institute of Australia have clearly advocated this as a priority.

6. Future of the grid, choice and control

Solar is seen as ideal for customers, and batteries are seen as the final technology needed to wrest back control of electricity bills. Stakeholders expect Endeavour Energy to be innovative and trial new technologies associated with distributed energy resources and demand management, largely to keep downward pressure on capital expenditure, and to prepare the grid for customers' future technology choices.

7. Street lighting

Councils are keen to quickly transition to LEDs. They want street lighting tariffs that reflect the lower maintenance costs of LEDs.

8. Vegetation Management

Customers generally want us to maintain the status quo with vegetation management. Safety should not be compromised for appearance. Councils would like to see less aggressive trimming and further consultation on the nature of tree trimming.

9. Vulnerable customers

Vulnerable customers want us to keep network costs as low as possible without compromising reliability. Assisting the vulnerable is seen as the responsibility of the whole energy sector, particularly retailers. Customers have told us we should focus on assisting life support customers in particular.

10. Trust deficit

Customers aren't sure who to trust. They generally don't trust retailers because they are suspicious of their motives. Customers don't know where to access information and advice on metering, tariffs and batteries.

Some new engagement initiatives in phase 2 to be completed by April 2018

Deep dives

Feedback from key stakeholders including the CCP10 and ECA has recommended that Endeavour Energy conduct a transparent, collaborative expenditure consultation process involving opex and capex 'deep dives'. As the name suggests, a deep dive involves a more detailed exploration of the evidence and underlying assumptions being used to justify our plans. It also includes a breakdown of the costs allocated to specific projects and programs.

The objective of the deep dive phase is to better understand the needs of customers and develop a capex proposal that addresses those needs as these will translate into the final prices and services that electricity consumers will ultimately pay for, and benefit from. We firmly believe that this added layer will lead to a more thorough understanding between Endeavour Energy and its key stakeholder groups of the internal and external factors which influence the plans and proposals of our electricity network business and address any perceived engagement gaps.

The subjects we propose to explore are likely to include those key areas which, based on feedback to date, are clearly of importance to our stakeholders and customers. We note, however, that the agenda and scope of discussions for workshops would be set by the group prior to the 'deep dives' being undertaken. The key areas which would likely be explored include but will not be limited to:

- operating expenditure
- capital expenditure
- replacement expenditure
- growth forecasts
- our contributions policy with developers

- contingency projects including Western Sydney Airport, Carlingford Transmission Substation and oil cable replacement.

Such engagement would likely include the key stakeholders of the CCC including representatives from the AER, ECA, CCP10 and PIAC.

The Stakeholder Reference Group – post April 2018

Endeavour Energy's engagement to date has been characterised by more collaborative interaction with peak consumer groups on specific issues. This has helped to rebuild our relationship, strengthen trust, understand priorities and refine areas for further engagement. Specifically, we have been working closely with the following organisations.

- AER's Consumer Challenge Panel (CCP10)
- Public Interest Advocacy Centre
- NSW Council of Social Services
- Energy Consumers Australia

We would like to continue to build on this type of engagement for the benefit of our customers. In order to do so, and to align our engagement with best practice engagement, we propose to establish a Stakeholder Reference Group (SRG). We would move towards adopting the model used by Scottish Water in the operation of its Customer Forum, which has been recognized as a strong and independent vehicle for effective customer engagement.

Organisations to be invited to our SRG

Given the relatively complexity of regulatory issues and the requirement for a level of economic, technical and industry knowledge, the SWG would comprise the stakeholders previously listed as well as number of other groups that have played an important role in the development of our proposal.

The organisations we would look to approach to participate are the following, subject to consideration of the effective size of the group. Members should bring specialist expertise to the deliberations and be a senior decision maker in the organization they represent.

- AER (technical/engineering expert)
- AER CCP10 (Observer)
- Urban Development Institute of Australia
- Energy Consumers Australia
- Public Interest Advocacy Centre
- NSW Council of Social Services
- Energy Consumers Australia
- Total Environment Centre
- Western Sydney Regional Organisation of Councils
- Macarthur Regional Organisation of Councils
- Illawarra Regional Organisation of Councils
- Macarthur Regional Organisation of Councils
- Western Sydney Leadership Dialogue
- Department of Planning
- AGL
- Energy Australia
- Origin Energy

Rapid urban growth is a key feature of Endeavour Energy's network and the main point of difference to other Australian networks. Western Sydney is one of Australia's fastest growing regions and the third largest economy in Australia. It is home to 1 in every 11 Australians. According to the Greater Sydney Commission, \$1billion is invested every month on infrastructure in Sydney, with a large portion of that investment allocated to more than nine NSW Department of Planning and Environment priority growth centres, all within Endeavour Energy's network.

The NSW Government has provided new dwelling projections which indicate that the number of customers we will be servicing in growth areas will dramatically increase. This is in part due to rezoning and increased housing density.

We currently connect about **8000-10,000 homes** to the network each year; predominantly in green fields or new growth areas. NSW Government projections indicate that we could potentially connect more than **23,000 homes** each year for the next 25 years. As a result, building the network to service this demand will be a major focus for us in coming years.

This group would be asked to assist in informing, guiding and publishing the development of long term plans and evidence based business plans, particularly focused on meeting growth across Endeavour Energy's network.

We expect that this group would benefit from an independent chair, and be guided by a charter built on the AER's consumer engagement principles, using consensus decision making techniques. The group would be able to access expert resources if needed on particular topics.

Other engagement - to continue throughout 2018.

Customer Consultative Committee

Our CCC has been a vital part of our engagement to date. Feedback around tariffs and our communication materials for our deliberative forums have been very important and constructive and led to some excellent outcomes for our customers.

We will look to enhance CCC membership, which has been actioned recently with the inclusion of Energy Consumers Australia. Invitations have also been provided to Ethnic Communities Council and we are working with Council for the Aging regarding their involvement (COTA).

We will continue to utilise the strong relationships developed through our CCC to deep dive during the next 12 months into some of the more complex aspects of our regulatory proposals and test our thinking.

Deliberative planning forums

These forums have been a key piece of engagement which is central to our proposal and have helped to build our understanding of consumer preferences in many areas. The forums have provided another engagement avenue for those responsible for planning and helped understand the reaction of customers to our thinking.

We propose to build on this success by revisiting our deliberative forums following the draft decision by the AER. We would look to engage around 30-40 end use customers segmented over vulnerability, solar and small to medium enterprises explored key themes of safety, reliability and affordable electricity, our plans to meet electricity demand in new growth areas, and enabling customers' future energy choices.

Independent audit process

In August 2017, Endeavour Energy's Board sought an assurance that Endeavour's Customer and Stakeholder Engagement Strategy complied with the AER's Consumer Engagement Guideline and best practice principles. Endeavour Energy also wanted assurance that the results of engagement were directly linked to customer outcomes expressed in its regulatory proposal. As a result, Endeavour Energy commissioned an internal audit of its approach in September 2017. Areas for focus included:

- Governance over the Customer and Stakeholder Engagement process.
- Compliance with the AER's Customer Engagement Guidelines through assessment of the best practice principles and the four components of the guideline, as below:
 1. Principles
 2. Priorities
 3. Delivery
 4. Results

5. Evaluation and review

- Engagement with a sample of identified external stakeholder groups to support the evaluation of compliance to the Guideline above.
- Compliance with the National Electricity Rules specific in relation to the levels of customer engagement in the regulatory process.
- Completeness of information substantiating the customer and stakeholder engagement process.

As a result, the audit recommended four areas of improvement including developing KPIs prior to engagement initiatives being implemented, tracking completion of the agreed recommendations from the July 2016 Strategic Review of Endeavour Energy's Customer Engagement approach to its first AER regulatory submission; better explaining the process for re-engagement in the event of changes in the underlying business assumptions; a maturity assessment against the IAP2s Quality Assurance Standard for community and stakeholder engagement processes; and updating the Customer and Stakeholder Strategy to show deliverables for each engagement stage.

Endeavour Energy has agreed to action each recommendation by December 2018.

Detailed engagement plan

Proposed engagement prior to lodging our final proposal in Dec 2018 will include, but not be limited to, the following.

ENGAGEMENT INITIATIVES		20	2018													
		17	D	J	F	M	A	M	J	J	A	S	O	N	D	
1	Invite stakeholders to take part in deep dive workshops on operating expenditure; capital expenditure; replacement expenditure; growth forecasts; our contributions policy with developers; contingency projects including Western Sydney Airport, Carlingford Transmission Substation; and oil cable replacement.															
2	Expand CCC membership for 2018 and scope work plan for the year.															
3	Finalise stakeholders participating in deep dive workshops															
4	Hold scoping workshop on deep dives listed in Line 1 above. Location – Sydney CBD.															
5	Hold deep dive workshops listed in Line 1 above. Location – Sydney CBD. Workshop attendees and scope to be confirmed during scoping workshop.															
6	Scope out proposed SRG membership, charter and resource requirements															
7	Review of proposed SRG with key stakeholders															
8	Invite SRG members to participate															
9	Hold feedback forum on engagement to date															
10	Finalise March CCC meeting terms of reference & scope															
11	March CCC meeting															
12	Submit draft regulatory proposal 2019-24															
13	Hold first SRG meeting															
14	Finalise July CCC meeting terms of reference & scope															
15	July CCC meeting															
16	Draft determination released by the AER															
17	Attend AER's pre-determination conference on draft decision															
18	Hold SRG meeting to discuss draft decision and attain feedback.															
19	Residential and SME deliberative planning forums to inform final proposal.															
20	Finalise Nov CCC meeting terms of reference / scope.															
21	Nov CCC meeting.															
22	Revised regulatory proposal due.															

Deep Dive Phase
January to March 2018



Deep Dive Workshops

Summary

As part of its stakeholder engagement program for its 2019-24 Regulatory Proposal, Endeavour Energy hosted four 'deep dive' workshops in Sydney's CBD, with the first on Tuesday 23 January 2018.

These workshops were possible due to an extension granted by the AER for Endeavour Energy to undertake further, more detailed engagement on specific elements of its regulatory plans for 2019-24 before submitting its overall proposal to the AER by 30 April 2018.

Who attended

Attendees at each workshop varied slightly but generally included representatives from State and local government, Energy Consumers Australia, Public Interest Advocacy Centre, Total Environment Centre, NSW Council of Social Services, Urban Development Institute of Australia, Endeavour Energy's Customer Consultative Committee, Endeavour Energy executives and senior managers, representatives from Essential Energy, Ausgrid, the AER's technical team and the AER's Consumer Challenge Panel.

The overall objective of each workshop was to provide a forum in which Endeavour Energy's senior executives could provide detailed information on particular elements of its capital and operating expenditure plans for 2019-24 which are of most interest to its stakeholders, with subsequent time for deep discussion on these topics. We also held a 'deep dive' workshop on tariffs, which included attendance by retailers and the AER's pricing teams.

The workshops were independently facilitated and designed as an interactive process, with participants actively involved in helping shape the agendas and requesting information.

What we heard

The conversations at each deep dive were transparent, searching, respectful and robust. Endeavour Energy's proposed tariff strategy was strongly supported. This resulted in a new demand tariff and welcomed simplification to the tariff structures proposed and tested in the earlier Directions Paper and Deliberative Planning Forums. Proposed operating expenditure was also supported. While consensus was sought on our proposed capital expenditure program, it was not reached in two areas, discussed further below and then summarised in the deep dive summaries that follow.

There were several areas where some consumer advocates sought further information over the course of the four deep dives. While all attending recognised the challenge of responding to growth, particularly in Western Sydney, they wanted Endeavour Energy to better justify its plans for an additional \$0.5b in capital expenditure on the basis that customers would need to fund this investment for the next 30-40 years. They wanted to be certain it was necessary, and could not be offset by other initiatives such as demand management.

Endeavour Energy explained that its demand forecasts and risk management assessments indicate this level of investment is required to meet the green field nature of the rapidly transforming growth areas across Western Sydney. Although we made significant capital investments during 2014 -19 to cater for growth and replace ageing assets, most additional capacity has since been absorbed in the years following 2014.

Endeavour Energy has worked hard to minimise price impacts caused by increased investment through its organisation-wide efficiency program, which continues to deliver the lowest network charges of the three distribution businesses in NSW.

The second area of substantial conversation involved changes to Endeavour Energy’s capital contributions policy.

We received feedback from developers that, compared to other networks in Australia, we required connecting customers to contribute a greater amount to shared assets. We reviewed this and found that our practices had unintendedly moved from ‘beneficiary’ pays to ‘causer’ pays due to the larger scale and pace of development activity in our network area. We corrected this approach to ensure that our approach is fairer – with connecting customers funding the assets dedicated to them and all customers funding assets that provide a broader, shared benefit to the network.

This change reduces prices in the 2019-24 period for existing customers as the reduction to capital contributions (which are taxed at 30 per cent) has a larger revenue impact than the increase to connection capital expenditure. In the longer-term the connection capital expenditure will increase costs to existing customers but the costs to connecting customers will be lower. Endeavour Energy considers this is appropriate as the vast majority of our existing customers were connected on this basis, or even more favourable terms.

We made these changes to reduce costs for customers now and to bring Endeavour Energy’s policy closer to the policy applied by other distributors. While the revised policy reduced costs for existing customers and for developers, consumer advocates were concerned these savings might not necessarily be passed on to electricity consumers, and that prices would increase overall for customers in the longer term.

What we did as a result of what we heard

We revised our capital investment program and decreased total proposed capex by around \$90m as a result of the feedback we heard in the deep dives. We recognise that consumer advocates are concerned that we not invest one more dollar than is necessary.

We have maintained the changes we have made to the capital contributions policy as we believe they reduce costs for customers now. We have also agreed to hold a NSW industry wide workshop to consider the matter further and note it remains an area of concern for customer advocates while it is supported by developers and councils.

We have committed to continue our efficiency program and to also keep downwards pressure on our operating costs.

We also simplified our tariff structures in response to retailers' requests for simplicity and consumer advocate feedback to help customers understand the transition to cost reflective pricing. As a result we amended the time of use seasonal demand tariff and introduced a new demand tariff.

What we learned from the deep dives

We evaluated each deep dive and achieved an overall average ranking of 87 percent agreed or strongly agreed that the course structure, content and facilitation met or exceeded expectations. This exceeded our target of 75 percent.

The 'deep dive' workshops were a highly effective platform for all parties to listen first, build shared understandings and then intensify dialogue to try to reach agreement on key aspects of our proposal.

They bring together diverse stakeholders with differing perspectives in an environment that builds common understandings about price/ trade-offs and the risks and benefits of particular choices.

Given the high levels of transparency, trust and goodwill required, they need commitment from the top and strong participation of the senior leadership team to prepare large amounts of detailed information thoroughly and condense this into accessible information.

The deep dive process also helps to move engagement along the IAP2 Spectrum from information provision to more sophisticated consultation. Again, trust and goodwill are central to producing positive outcomes for all parties, and this requires deep and regular and engagement, sustained over time.

They also help address the principle of 'no surprises' as they allowed Endeavour Energy to have difficult conversations early in the process and identify the gaps and/or alternate options to explore further.

Next time, we will embed the deep dive process in our initial engagement strategy and identify dates well in advance to enable participation by the broadest possible group of interested stakeholders.

CAPEX DEEP DIVE WORKSHOP – 23 JAN 2018

Location

Bennelong Room
Level 15 Dexus Place
1 Farrer Place, Sydney

AGENDA

Item	Time	Detail	By whom
1	8.30 - 9.00am	Coffee and breakfast and registration from 8.30 for 9.00am sharp start	ALL
2	9.00 - 9.15am	Welcome and safety briefing Opening comments – context for today	AS TN
3	9.15 - 9.45am	Introductions and objective setting (<i>discussion</i>) <ul style="list-style-type: none"> • The 'deep dive' approach • Participant introductions, expectations and success factors • Agenda overview and recalibration 	SV
4	9.45 - 10.00am	Setting the scene (<i>presentation</i>)	AS
5	10.00 -10.45am	Dive 1 - What's driving capital expenditure (15 minute information sharing; 30 minute discussion) <ul style="list-style-type: none"> • Customer forecast and connection growth data sources and implications • Capital contributions change: new funding proposal details, how this affects customers 	RH & TC
6	10.45 - 11.00am	MORNING TEA BREAK (15 mins)	ALL
7	11.00 - 12.00pm	Dive 2 – Augmentation: Overview (15 minute information sharing; 45 minute discussion) <ul style="list-style-type: none"> • Proposal summary • Modelling approach and outcomes • Demand management 	RH & TC
8	12.00 - 1.10pm	Dive 3 – Greenfields Augex (part 1) (25 minute information sharing; 45 minute discussion) <ul style="list-style-type: none"> • New connections: Capex implications 	RH & TC
9	1.10 - 1.50pm	LUNCH (40 mins)	ALL

Item	Time	Detail	By whom
10	1.50 - 2.45pm	Dive 4 – Greenfields Augex (part 2) <i>(15 minute information sharing; 40 minute discussion)</i> <ul style="list-style-type: none"> Using existing infrastructure to support new load Review of specific projects proposed 	RH & TC
11	2.45 - 2.55pm	AFTERNOON TEA BREAK (10 mins)	ALL
12	3.00 - 3.45pm	Dive 5 – Brownfields Augex <i>(15 minute information sharing; 35 minute discussion)</i> <ul style="list-style-type: none"> Drivers of brownfield augex Review of specific projects proposed Contingent projects 	RH & TC
13	3.45 - 4.45pm	Dive 6 – Repex (if time allows) <i>(15 minute information sharing; 45 minute discussion)</i> <ul style="list-style-type: none"> Asset classes, risk profile, planning process and technical impacts 	RH & TC
14	4.45 - 5.00pm	Wrap up (<i>discussion</i>) <ul style="list-style-type: none"> Agreed actions Agenda for next meeting 	SV

Presenters

Name	Role	Organisation
Tony Narvaez (TN)	Chief Executive Officer	Endeavour Energy
Rod Howard (RH)	Chief Operating Officer	Endeavour Energy
Andrew Schille (AS)	General Manager, Regulation & Corporate Affairs	Endeavour Energy
Ty Christopher (TC)	General Manager, Asset Management	Endeavour Energy
Sue Vercoe (SV) Facilitator	Managing Director	Newgate Research

Deep Dive Workshop 1

Summary

As part of its stakeholder engagement program for its 2019-24 Regulatory Proposal, Endeavour Energy hosted the first of its three 'deep dive' workshops on Tuesday 23 January 2018 in the Sydney CBD.

These workshops are possible due to an extension granted by the AER which has provided additional time for Endeavour Energy to undertake further, more detailed engagement on specific elements of its regulatory plans for 2019-24 before submitting its overall proposal to the AER by no later than 30 April 2018.

Attendees at the first workshop included representatives from State and local government, ECA, PIAC, UDIA, Endeavour Energy's Customer Consultative Committee, Endeavour Energy executives and senior managers, representatives from the AER and the AER's Consumer Challenge Panel.

The overall objective of this first workshop was to provide a forum in which Endeavour Energy's senior executives could provide detailed information on those elements of its capital expenditure plans for 2019-24 which are of most interest to its stakeholders, with subsequent time for deep discussion on these topics.

The workshops are independently facilitated and designed as an interactive process, with participants actively involved in helping shape the agendas and requesting information. Endeavour Energy intends to take the feedback into account in decision-making wherever possible and will report back on how the feedback has been used, or where it has not been taken into account, if applicable. This is part of the network's ongoing efforts to ensure its customers' network is affordable, safe and reliable and meets their long term interests and requirements.

Reflecting participant's suggestions, the first workshop included five 'dives' on the drivers of capital expenditure, in particular, new connections and the augmentation of the network in both greenfield and brownfield areas.

To provide context there is a table on page 6 showing the breakdown of capital expenditure from 2009-14 (actual) to 2019-24 (proposed). This information was provided at the start of the workshop along with the presentation materials.

Key information and findings

Drivers of growth in new connections

Current position - Endeavour Energy proposes spending \$310m to fund new connections in 2019-24, which is up from the \$150m outlined in its Directions Paper published last year. The 2014 to 2019 actual / forecast spend is currently \$133m. Endeavour Energy explained

the significant increase in new customers across its franchise area was a key driver of future investment and detailed its licence requirements to connect new customers in a timely and efficient manner.

Attendees understood that growth was a significant driver of future investment however were keen to understand how different aspects of demand had been applied in the economic modelling. They had a number of specific questions that Endeavour Energy will respond to at the second workshop.

Capital contributions

Current position - Endeavour Energy explained that very high levels of growth had lead it to review the manner in which its capital contributions policy was being applied. Endeavour said it had recently changed its application of the customer contributions policy as they felt it was inconsistent with industry practice. Endeavour had previously funded 7% of new connections but is now forecast to fund 37%. The changes were believed to have positive tax implications.

Attendees requested further information on the tax implications and overall customer benefit. They also wanted more information on how Endeavour Energy had considered stakeholder feedback and the long term interests of the customers in making this decision.

Augex – overview

Current position - Endeavour Energy proposes \$448m to fund augmentation in 2019-24, which is an increase from the \$400m outlined in its Directions Paper. The 2014 to 2019 actual / forecast spend is currently \$279m. Endeavour Energy executives provided information regarding the inputs and outcomes of its augmentation modelling figures. It was noted that historically the outputs of forecasting models differed between Endeavour, AEMO and the AER.

Attendees wanted to know more about what was driving the 13 per cent increase in augex between the Directions Paper and the current position. More detail was requested regarding how Endeavour accounts for demand management, solar and battery uptake in augex forecasting, and the potential impacts of these variables in delaying expenditure. They wanted to know how risk associated with forecasts was managed. Some wanted information on how Endeavour Energy worked with councils and developers to instigate demand management practices. They were keen to know how many of the network's zone substations had headroom for greater capacity, and to better understand the relationship between cost-reflective pricing/tariffs and augmentation expenditure.

Greenfield augex

Current position - Endeavour Energy proposes an increase in greenfield augex from \$164m in 2014-19 to \$331m in 2019-24. This rise is in line with the increase in number of zone substation projects. Endeavour noted that under its proposal the cost per project decreased between the two periods and that it was servicing 13 major growth precincts in the next period versus six in the current period. These projects are in the South West and North West Priority Growth Area, Greater Macarthur South and West Lake Illawarra release

areas. The staged approach to building the network in line with growth projections was explained.

Attendees were interested to understand how Endeavour matched electricity capacity with forecast dwelling numbers, with an eye to ensuring it did not build capacity beyond forecast demand. They were keen to understand the key “trigger points” in proceeding with the development of a substation and/or feeder projects and, essentially, what was the “point of no return” throughout this development process. They wanted to know how augmentation forecast spend had tracked against the actual spend over time. They sought clarification on how uncertainties, flexibility and demand management could be built into decision making and how the DMIS fed into demand management in greenfields developments.

Brownfield augex

Current position - Endeavour Energy proposes a decline in brownfield augex from \$142m to \$117m between 2019-24 and 2019-24. The main reason for this is that zone substation/sub transmission line expenditure is in decline with headroom available in established suburbs due to past investment, coupled with the existing customer base in some areas remaining steady. The remaining brownfield augex is driven by new connection driven demand growth, fault level withstand capability, and compliance with national electricity rules. Examples of possible contingent projects were provided.

Attendees were interested to understand what was driving brownfields augex and wanted to understand the relationship between augex and replacement expenditure in brownfields areas. They wanted to know how the \$117m brownfields augex was split between feeders, zone substations, switchboards and transmission feeders. They also wanted to know how solar uptake would be accounted for in future brownfields augex forecasting. For contingency projects, it was suggested that Endeavour align any possible contingent projects firmly with the AER criteria.

Endeavour Energy has committed to providing answers to any outstanding questions outlined above at its second deep dive workshop to be held on 6 February 2018 in the Sydney CBD. A third and final deep dive will be held on 20 February.

All feedback received during these workshops will be presented to, and considered by, Endeavour Energy’s Executive Leadership Team as they finalise the Regulatory Proposal to be submitted to the AER by 30 April 2018.

Figure 1 – Breakdown of capital expenditure 2009-14 (actual) to 2019-24 (proposed)

\$m real 19	2009 to 2014 Actual	2014 to 2019 Allowance	2014 to 2019 Actual / Forecast	2019 to 2024 Directions Paper	2019 to 2024 Current Proposal
New connections	83	84	133	150	310
Growth / Augmentation	1,172	306	279	400	448
Replacement	845	720	624	850	850
Reliability	57	27	20	20	21
Other network	69	22	87	45	46
Overheads	499	391	309	360	400
Total System capital	2,724	1,549	1,452	1,825	2,050
IT	92	90	91	90	91
Vehicles	69	29	20	25	22
Other	109	61	50	60	62
Total Other	270	180	161	175	175
Total Capital	2,995	1,729	1,613	2,000	2,250

Attendees

Capex Deep Dive Workshop

23 January 2018

Name	Role
Annie Kiefer	Vice-President Sydney City Branch, Country Women's Association
Michelle Caruso	Area Manager, NSW Business Chamber
Lesley Scarlett	Executive Officer, Illawarra Pilot Joint Organisation
Trevor Oldfield	Board Member, Parramatta Chamber of Commerce
Tim Harrison	Policy Officer - Energy and Water, Public Interest Advocacy Centre Ltd
Nic Pasternatsky	Procurement Manager, Western Sydney Regional Organisation of Councils
Oliver Derum	Associate Director, Advocacy and Communications, Energy Consumers Australia
Craig Memery	Policy Team Leader Energy and Water, Public Interest Advocacy Centre Ltd
Justin Drew	General Manager, Policy and Corporate Affairs, Urban Development Institute of Australia NSW
Julie Scott	Manager, Economic Development, Liverpool City Council
Katherine Hole	Executive Director, Energy Strategy, Department Of Energy
Slavko Jovanoski	Assistant Director, AER
Sarah Soliman	Senior Analyst, Repex team, AER
John Thompson	Senior Technical Advisor, Executive Branch, AER
Cameron Smith	Senior Analyst, AER
Sara Stark	Director, AER
Mike Swanston	AER Consumer Challenge Panel
Louise Benjamin	AER Consumer Challenge Panel
Ilias Benjelloun	Shareholder Representative
Tony Narvaez	Chief Executive Officer, Endeavour Energy
Rod Howard	Chief Operating Officer, Endeavour Energy

Name	Role
Andrew Schille	General Manager, Regulation and Corporate Affairs, Endeavour Energy
Ty Christopher	General Manager, Asset Management, Endeavour Energy
Peter Langdon	Manager Asset Strategy and Planning, Endeavour Energy
Kate McCue	Manager, Corporate Affairs, Endeavour Energy
Jon Hocking	Manager, Network Regulation, Endeavour Energy
James Tydd	Stakeholder and Community Relations Manager, Endeavour Energy
Daniel Bubb	Pricing Manager, Endeavour Energy
Patrick Duffy	Regulatory Strategy Manager, Endeavour Energy
Jason Lu	Capacity Planning Manager, Endeavour Energy
Manoraj Jayasekara	Network Investment Planning Manager, Endeavour Energy
Selina O'Connor	Stakeholder Manager, Ausgrid
Adam Causley	Manager, Network Strategy and Risk, Essential Energy
Sue Vercoe	Manager Director, Newgate Research, Workshop Facilitator
Sophie Travers	Associate Partner, Newgate Communications

ENDEAVOUR ENERGY CAPEX DEEP DIVE WORKSHOP TWO TUESDAY 6 FEBRUARY 2018

Location

**Bennelong Room
Level 15 Dexus Place
1 Farrer Place, Sydney**

AGENDA

Item	Time	Detail	By whom
1	8.30 - 9.00am	Registration from 8.30am for 9.00am sharp start. Coffee, breakfast burgers and fruit will be available.	ALL
2	9.00 - 9.15am	Welcome and safety briefing Feedback from Deep Dive 1	AS
3	9.15 - 9.40am	Introductions and objective setting (<i>discussion</i>) <ul style="list-style-type: none"> Recap on participant feedback from Deep Dive 1 New faces, expectations and objectives Agenda overview and recalibration 	SV
4	9.40 - 10.45am	Response and further discussion on outstanding questions from Deep Dive Workshop 1 (<i>For each, 3-5 minute information sharing, 5-10 minute discussion or longer if required</i>) <ul style="list-style-type: none"> Capital contributions – rationale for change in policy, tax argument New connections – forecasting figures Augmentation modelling/variables/investment plans Greenfield augmentation - forecasting/drivers of costs /stages of construction Brownfield augmentation – drivers of investment/relationship between augex and repex Contingent projects – triggers for contingent projects / examples within our network 	AS TC RH
6	10.45 - 11.00am	MORNING TEA BREAK (15 mins)	ALL
7	11.00 – 11.30am	Response and further discussion on outstanding questions from Deep Dive Workshop 1 - continued	AS TC RH
8	11.30 –12.00pm	Dive 1 – Repex (<i>10 minute information sharing; 20 minute discussion</i>) <ul style="list-style-type: none"> What drives repex? Repex proposal overview 	RH TC

Deep Dive Workshop 2

Summary

As part of its stakeholder engagement program for its 2019-24 Regulatory Proposal, Endeavour Energy hosted the second of its four 'deep dive' workshops on Tuesday 6 February 2018 in the Sydney CBD.

Participants at the workshop included representatives from State and local government, ECA, PIAC, UDIA, Endeavour Energy's Customer Consultative Committee, Endeavour Energy executives and senior managers, representatives from the AER and the AER's Consumer Challenge Panel. Most of these representatives attended the first deep dive workshop held on 23 January 2018.

The objective of the first half of the workshop was for Endeavour Energy's senior executives to provide responses to and facilitate further discussion of outstanding questions from Deep Dive One, including capital contributions policy, forecasting models and figures for augmentation expenditure.

The second half of the workshop was dedicated to discussing the drivers of proposed replacement expenditure and information technology, the benefits of this planned expenditure for consumers, and answering questions from the room as they arose.

The 'deep dive' workshops are possible due to an extension granted by the AER which has provided additional time for Endeavour Energy to undertake further, more detailed engagement on specific elements of its regulatory plans for 2019-24 before submitting its overall proposal to the AER by no later than 30 April 2018.

The workshops are independently facilitated and designed as an interactive process, with participants actively involved in helping shape the agendas and requesting information. Endeavour Energy intends to take the feedback into account in decision-making wherever possible and will report back on how the feedback has been used, or where it has not been taken into account, if applicable. This is part of the network's ongoing efforts to ensure its customers' network is affordable, safe and reliable and meets their long term interests and requirements.

Key information and findings

Outstanding questions from Deep Dive One

Capital contributions

Current position – In response to participants' questions Endeavour Energy gave more background about its recent policy shift which involved increased funding of new connections from 7% of new connections to 37%. By way of context, Endeavour Energy now proposes spending \$310m to fund new connections in 2019-24, which is up from the \$150m outlined in its Directions Paper published last year. The 2014 to 2019 actual / forecast spend is currently \$133m. Endeavour believed this would benefit customers as tax

implications mean the total cost to all customers was reduced.

Participants were very engaged in this topic and ultimately suggested a break-out group meet to further discuss elements such as tax, intergenerational equity and socialisation of sub transmission costs. Several felt that some quick customer engagement should be conducted to directly seek feedback on (1) who should pay for capital contributions (2) when they should pay and (3) how much they should pay.

Augex – overview

Current position – Participants wanted to know more about what was driving Endeavour Energy’s proposal for \$448m to fund augmentation in 2019-24, an increase from the \$400m outlined in its Directions Paper. The 2014 to 2019 actual / forecast spend is currently \$279m. They were also keen for more information on how demand management initiatives were being used. Endeavour explained that the key drivers of demand are an increase in the number of development areas and more rapid development where expenditure might progress through two or three stages in one regulatory period, to service demand. Case studies showing demand per customer were provided. A breakdown of the proposed \$117m brownfields augex was provided.

Participants wanted to know more about how demand management was factored into the augmentation expenditure proposal. They wanted to understand how uncertainties, flexibility and demand management could be built into decision making so as to reduce peak demand. They were keen to understand if mobile substations were being used in an optimal way.

New Topics for Deep Dive Two

Repex – overview

Current position – Endeavour explained that its asset condition assessments, internal and AER models all indicated that repex in excess of \$1.1bn across the regulatory period would be required. However, in response to customer feedback, and taking into account deployment of future technology Endeavour Energy proposes \$850m for replacement expenditure in 2019-24. This is unchanged from the position in the Directions Paper. The 2014 to 2019 actual / forecast spend is currently \$623m. Endeavour said the primary reason it replaced assets was to avoid the consequences of failure and to meet statutory requirements (AS5577) that are part of Endeavour Energy’s licence conditions. Due to the high consequence of asset failures, its aim is to retire critical assets before they fail, yet as close as possible to their end of life.

Endeavour executives provided detailed information and replacement policies around different asset classes i.e. poles, transformers, substations, circuit breakers, field switchgear and underground cables.

Participants requested further information about how the asset life of different types of assets benchmarked against other networks in the NEM. Participants wanted to better understand the risk implications from having a proposal of \$850m compared to \$1.1billion, and how Endeavour had assessed this trade-off. In this context, some wanted more information on how Endeavour would explain this trade-off to customers. Some wanted to know how changes in technology were factored into repex modelling.

Participants sought clarification on failure rates and industry standards for timeframes to replace poles and whether Endeavour was looking to maintain its current position on pole replacement in the future. Some participants were interested to know more about the criteria in the rules for contingency projects.

Information Technology

Current position

Endeavour Energy proposes \$91m to fund augmentation in 2019-24, which is a minor increase from the \$90m outlined in its Directions Paper. The 2014 to 2019 actual / forecast spend is currently \$121m, as Endeavour commenced a major upgrade of technology platforms during the last regulatory period. This was a commitment made following the completion of the lease transaction last year. A key driver for this investment is that current technology platforms are at end-of-life, are poor performing, expensive and do not facilitate the opportunities now available with modern technology. There is some investment required during the first year of the next period to complete the program. Endeavour said its ICT investment (past, present and future) is efficient when compared to other distributors in the NEM.

Participants were interested to know the proportion of proposed investment to be spent on cyber security and how this was trending. They wanted to know how the IT is improving the bottom line for the business and what the benefits for the customers would be. Some wanted to know whether there were indicators of how IT spend and benefit were monitored and what post implementation assessment would be undertaken into the value of IT program.

Endeavour Energy has committed to providing answers to any outstanding questions outlined above in the first half of its third deep dive workshop to be held on 20 February 2018 in the Sydney CBD. The second half of this workshop will also include deep dives focused on tariffs and opex.

All feedback received during these workshops will be presented to, and considered by, Endeavour Energy's Executive Leadership Team as they finalise the Regulatory Proposal to be submitted to the AER by 30 April 2018.

Figure 1: Breakdown of capital expenditure

\$m real 19	2009 to 2014 Actual	2014 to 2019 Allowance	2014 to 2019 Actual / Forecast	2019 to 2024 Directions Paper	2019 to 2024 Current Proposal
New connections	85	85	122	150	309
Growth / Augmentation	1,190	311	258	400	448
Replacement	814	731	623	850	850
Reliability	60	27	19	20	20
Other network	69	22	43	45	43
Overheads	540	397	361	360	404
Total System capital	2,758	1,574	1,426	1,825	2,075
IT	94	91	121	90	91
Vehicles	71	29	18	25	22
Other	110	62	51	60	62
Total Other	275	182	190	175	175
Total Capital	3,032	1,756	1,616	2,000	2,250

Capex Deep Dive Workshop Two: Tuesday 6 February 2018

Attendees

Name	Role
Annie Kiefer	Vice-President Sydney City Branch, Country Women's Association
Trevor Oldfield	President, Blacktown Chamber of Commerce
Oliver Derum	Associate Director, Advocacy and Communications, Energy Consumers Australia
Sam Stone (new participant)	Manager, Policy and Corporate Affairs, Urban Development Institute of Australia NSW
Nic Pasternatsky	Procurement Manager, Western Sydney Regional Organisation of Councils
Craig Memery	Policy Team Leader Energy and Water, Public Interest Advocacy Centre Ltd
Tim Harrison	Policy Officer Energy and Water, Public Interest Advocacy Centre Ltd
Bev Hughson (new participant)	Public Interest Advocacy Centre Ltd
Jacqueline Crawshaw (new participant)	NSW Department of Planning and Environment
Kim Huynh (new participant)	Director, Capex (Repex) AER
Sara Stark	Director, Capex (Augex) AER
Sarah Soliman	Senior Analyst, Repex team, AER
John Thompson	Senior Technical Advisor, Executive Branch, AER
Cain Fleckhammer (new participant)	Assistant Director, AER
Mike Swanston	AER Consumer Challenge Panel
Mark Henley (new participant)	AER Consumer Challenge Panel
Iain Maitland (new participant)	Ethnic Communities Council
Ilias Benjelloun	Shareholder Representative
Rod Howard	Chief Operating Officer, Endeavour Energy
Andrew Schille	General Manager, Regulation and Corporate Affairs, Endeavour Energy

Name	Role
Ty Christopher	General Manager, Asset Management, Endeavour Energy
Peter Langdon	Manager Asset Strategy and Planning, Endeavour Energy
Kate McCue	Manager, Corporate Affairs, Endeavour Energy
Jon Hocking	Manager, Network Regulation, Endeavour Energy
James Tydd	Stakeholder and Community Relations Manager, Endeavour Energy
Daniel Bubb	Pricing Manager, Endeavour Energy
Patrick Duffy	Regulatory Strategy Manager, Endeavour Energy
Jason Lu	Capacity Planning Manager, Endeavour Energy
Manoraj Jayasekara	Network Investment Planning Manager, Endeavour Energy
Terry Niemeier (new participant)	AER Program Office Manager, Endeavour Energy
Selina O'Connor	Government and Stakeholder Manager, Ausgrid
Adam Causley	Manager, Network Strategy and Risk, Essential Energy
Sue Vercoe	Workshop Facilitator Managing Director, Newgate Research
Sophie Travers	Associate Partner, Newgate Communications
Apologies	
Lesley Scarlett	Executive Officer, Illawarra Pilot Joint Organisation
Michelle Caruso	Area Manager, NSW Business Chamber
Katharine Hole	Executive Director, Energy Strategy, Planning and Environment
Julie Scott	Manager, Economic Development, Liverpool City Council

ENDEAVOUR ENERGY DEEP DIVE WORKSHOPS:

Number three: **TUESDAY 20 FEBRUARY 2018**

Location Bennelong Room, Level 15, Dexus Place, Governor Macquarie Tower, 1 Farrer Place, Sydney

AGENDA – Morning workshop

Item	Time	Detail	By whom
1	8.30 - 9.00am	Registration from 8.30am for 9.00am sharp start. Coffee, breakfast burgers and fruit will be available.	ALL
2	9.00 - 9.10am	Welcome, safety briefing and agenda Today's two workshops: <ul style="list-style-type: none"> • morning (9.00-12.00) wraps up capex issues, then deep dives on overheads and opex • afternoon (1.00-4.30pm) Tariffs 	AS
3	9.10 - 9.20am	Introductions and objective setting (<i>discussion</i>) <ul style="list-style-type: none"> • New faces, expectations and objectives • Agenda overview and recalibration 	SV
4	9.20 – 10.10am	Response and further discussion on follow up questions from CapexDeep Dive Workshop 2 (<i>For each question, 3-5 minute information sharing, 5-10 minute discussion or longer if required</i>) <ul style="list-style-type: none"> • Augex – explanation of how uncertainties, flexibility and demand management are built into augmentation expenditure plans. • Repex- risk implications of repex expenditure • Monitoring IT spend and benefit 	TC RH
5	10.10 –10.45am	Dive 1 – Overheads (<i>15 minute information sharing; 25 minute discussion</i>)	JH
6	10.45 - 11.00am	MORNING TEA BREAK (15 mins)	ALL
7	11.00 –11.45am	Dive 2 – Introduction to Opex (<i>15 minute information sharing; 30 minute discussion</i>)	AS
8	11.45 – 12pm	Wrap-up morning workshop <ul style="list-style-type: none"> • Summary of key issues • Where do we need more information? • Agreed actions 	SV
10	12.00 – 1.00pm	LUNCH (1 hour)	ALL

Item	Time	Detail	By whom
11	AGENDA 1.00 – 2.00pm	Afternoon workshop Dive 3 – Tariffs (40 minute information sharing; 20 minute discussion) Focus question: how well does Endeavour Energy's proposed tariff strategy align with customers' and stakeholders' stated preferences? Learnings from TSS1, TSS2 engagement and tariff design principles <ul style="list-style-type: none"> • The issue we are trying to solve • What we propose - our TSS strategy in response • Implementation issues 	AS RH DB
12	2.00-2.15pm	BREAK (15 mins)	ALL
13	2.15-3.00pm	What are the benefits and risks of the proposed approach? Who wins and who losses? (Discussion 45 mins)	ALL
14	3.00 – 3.15pm	AFTERNOON TEA BREAK (15 mins)	
15	3.15 – 4.00pm 4.00 - 4.30pm	What are the remaining issues and questions? Wrap up <ul style="list-style-type: none"> • Summary of key issues • Where do we need more information? • Agreed actions • Evaluation • Close sharp@4.30pm 	SV

Presenters

Name	Role	Organisation
Rod Howard (RH)	Chief Operating Officer	Endeavour Energy
Andrew Schille (AS)	General Manager, Regulation & Corporate Affairs	Endeavour Energy
Ty Christopher (TC)	General Manager, Asset Management	Endeavour Energy
Jon Hocking (JH)	Manager, Regulation	Endeavour Energy
Daniel Bubb (DB)	Pricing Manager	Endeavour Energy
Sue Vercoe (SV) Facilitator	Managing Director	Newgate Research

Contact if needed on the day: please call or sms Kate McCue on 0418 238 569

Deep Dive Workshop 3

Summary

As part of its stakeholder engagement program for its 2019-24 Regulatory Proposal, Endeavour Energy hosted its third 'deep dive' workshop on Tuesday 20 February 2018 in the Sydney CBD.

Participants at the workshop included representatives from State and local government, ECA, PIAC, retailers, Endeavour Energy's Customer Consultative Committee, Endeavour Energy executives and senior managers, representatives from the AER's pricing team and the AER's Consumer Challenge Panel. Some of these representatives attended the other two deep dive workshops held on 23 January and 6 February 2018

The objective of the first half of the workshop was for Endeavour Energy's senior executives to provide responses to and facilitate further discussion of outstanding questions from the capex deep dive workshop, including augmentation expenditure, replacement expenditure and IT investment. We also provided detail of our overheads and operating expenditure.

The third workshop was dedicated to discussing Endeavour Energy's proposed tariff strategy, attaining feedback and suggestions and answering questions from the room as they arose.

The 'deep dive' workshops are designed to bring together diverse stakeholders and provide a transparent and detailed examination of our expenditure plans and collaborate on the risks and benefits for customers as they ultimately pay the costs of the plans. The first two deep dives proved very effective with evaluations indicating very strong support for the content, facilitation and structure used by Endeavour Energy. They are possible due to an extension granted by the AER which has provided additional time for Endeavour Energy to undertake further, more detailed engagement on investment plans underpinning its regulatory plans for 2019-24 before submitting its overall proposal to the AER by no later than 30 April 2018.

The workshops are independently facilitated and designed as a highly flexible interactive process, with participants actively involved in shaping the agendas and requesting information. The process also helps to build understanding of models, assumptions, risk appetite and benefits and risks for consumers. Endeavour Energy intends to take the feedback into account in decision-making wherever possible and will report back on how the feedback has been used, or where it has not been taken into account, if applicable. This is part of the network's ongoing efforts to ensure its customers' network is affordable, safe and reliable and meets their long term interests and requirements.

Key information and findings

Outstanding questions from Deep Dive Two

Augex

Current position – In response to participants' questions Endeavour Energy gave more background about its proposed increase in augex expenditure in relation to the number of connections i.e. the current period sees \$128m expenditure on greenfield augex connecting 98,500 customers, the next period proposes \$240m connecting 105,000 customers. Endeavour Energy explained the five focus areas of its demand management strategy and provided the overall narrative behind utilising demand management to reduce the need for network investment. Information was provided on the approach to augex investment to minimise costs for our customers.

Participants wanted to further understand whether there was an optimal percentage of operating capacity and which influenced the decision to further invest in an asset, for example a feeder. Endeavour acknowledged that there were initial indicators that set a threshold for further consideration, for example 80% of capacity, and this threshold could change on a case-by-case basis.

Repex

Current position – Endeavour explained that its asset condition assessments, internal and AER models all indicated that repex in excess of \$1.1bn across the regulatory period would be required. However, in response to customer feedback, and taking into account deployment of future technology Endeavour Energy proposes \$850m for replacement expenditure in 2019-24. A graph which helped explain Endeavour's position and risk profile was provided and discussed in detail.

Participants wanted to further understand how the trade-off between expenditure, risk, productivity gains and risk mitigation (e.g. demand management) had led to a proposed expenditure of \$850m. An explanation of how these factors worked together to determine repex was provided. It was explained that plans for 2019-24 used insights gleaned from our owners' international experience; benchmarking the practices used by other utilities; plus investments Endeavour was currently making in technology tools, to better understand risk and make better investment decisions. This had led to the lower figure of \$850m being proposed.

IT

Current position- In response to participants' questions, Endeavour Energy gave more background about its current and proposed IT expenditure and the benefits of this investment for customers and the business.

Participants said there was an opportunity for Endeavour to expand on the benefits of the investment by remembering to explain the new investment required for cyber security , explain the need to utilise the smart grid and to provide the stability of the future grid.

New Topics for Deep Dive Two

Capitalised overheads

Current position – Endeavour explained that total capitalised overheads would increase from \$361.2m in the current period to \$404.2m in the next. The forecast increase in direct

capex (and reduction in opex) is driving the increase in capitalised overheads. Endeavour explained how capitalised overheads were calculated and that its capitalisation methodology was consistent with the current period. Endeavour Energy has a relatively low capitalisation rate compared to other DNSPs and capitalised overheads will be making up a lower proportion of our proposed capex amount in the 2019-24 period.

Participants requested further data on networks businesses whose capitalised overheads per customer were relatively high compared to Endeavour's – this information is available in the RIN reports. They also asked about accounting methods underlying calculation of overheads. Endeavour said the calculation was basically direct accounting.

Opex

Current position - Endeavour Energy explained that its forecasts indicated that its average operating cost per customer will reduce from \$305 in current period to \$271 in the 2019-24 period. It has bettered the AER's benchmark opex cost in this current period and will continue to reduce our average opex cost per customer throughout the period. Its aim to continue this focus in 2019-24 to make further improvements. Endeavour is committed to incentive regulation including the use of the EBSS. The AER has accepted Endeavour's position on opex.

Tariffs

Current position - Endeavour explained that it was committed to helping customers' manage their future energy bills by promoting cost reflective pricing. It recognised that changes to tariff structures must be managed carefully to ensure customers are not adversely impacted.

Its tariffs had been designed according to the following principles that had been developed in consultation with peak consumer groups.

These are:

1. Fairness: tariffs are reflective of the consumers network costs
2. Empowerment: consumers are empowered to make efficient consumption choices
3. Transparency: ensure tariffs are simple and transparent
4. Predictability: prices are predictable and stable over time

Under its proposal, new customers will default to a ten-year transition path to full cost-reflective pricing and an opt-out assignment policy for the STOU demand tariff. Customers can elect to default to a flat energy tariff as an alternate to the cost reflective STOU demand tariff.

Existing customers will remain on flat tariff and can opt into full demand tariffs, subject to their type of meter. They can also opt into transition STOU demand tariff subject to subject to their type of meter.

Endeavour explained that it believed the benefits to customers of the above approach would be:

Lower Costs and Prices: Cost-reflective pricing provides incentives to consumers to reduce or shift their peak demand so Endeavour Energy can reduce future investment (subject to retailer action). Reduced investment will lead to lower prices for all in the longer term.

Improved Customer Control: Cost-reflective pricing provides the customer with greater control over their bill should they wish to make changes to the way they consume electricity.

Incentivise efficient technologies: Cost-reflective pricing incentivises customer investment in technologies that benefit themselves whilst also benefiting the network.

Participants were very engaged in this topic. Some suggested ‘averaged’ demand tariffs and changes to charging windows. They supported the option to opt-out to provide choice. They do not support fixed charge increases. They supported customers being able to have a full cost reflective tariff available to them immediately. PIAC requested that the duration of peak charging window be reduced (at the start of the peak) and to take out the shoulder period to make it less confusing for customers e.g. families with school kids and ‘stay at home families’. They suggested that a flat rate for the peak charge would reduce complexity and help customers understanding. It was suggested narrowing the peak should be helpful as it would change behaviour. A mid-point review was suggested to test customer responsiveness. EWON said the difference between the peak and shoulder and peak and off peak needs to be substantial so people change their behaviour.

Retailers supported simplistic tariff structures to aid customer communication. For example, some suggested we eliminate the shoulder period to simplify the tariff and to show a ‘sharper’ pricing signal.

Figure 1: Breakdown of capital expenditure

\$m real 19	2009 to 2014 Actual	2014 to 2019 Allowance	2014 to 2019 Actual / Forecast	2019 to 2024 Directions Paper	2019 to 2024 Current Proposal
New connections	85	85	122	150	309
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Replacement	814	731	623	850	850
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Total System capital	2,758	1,574	1,426	1,825	2,075
IT	94	91	121	90	91
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Other	110	62	51	60	62
Total Other	275	182	190	175	175
Total Capital	3,032	1,756	1,616	2,000	2,250

Updated Deep Dive Workshop Three Tuesday 20 February 2018

Morning session: 9.00am -12.00 Capex follow up, Overheads, Opex

Afternoon session: 1.00 – 4.30pm Tariffs

List of participants (not all participants are attending both workshops)

Name	Role
Oliver Derum	Associate Director, Advocacy and Communications Energy Consumers Australia
Lynne Gallagher	Director, Research Energy Consumers Australia
Nic Pasternatsky	Procurement Manager, Western Sydney Regional Organisation of Councils
Craig Memery	Policy Team Leader, Energy and Water Public Interest Advocacy Centre Ltd
Tim Harrison	Policy Officer, Energy and Water Public Interest Advocacy Centre Ltd
Eric Groom	AER Consumer Challenge Panel
Mark Henley	AER Consumer Challenge Panel
Louise Benjamin (tbc)	AER Consumer Challenge Panel
Iain Maitland	Energy Advocate Ethnic Communities Council
Mark Byrne	Energy Market Advocate Total Environment Centre
Rory Campbell	Manager Policy and Research Energy and Water Ombudsman of NSW
John Skinner	Director, Energy Market Transition NSW Department of Industry
Katharine Hole (tbc)	Executive Director, Energy Strategy NSW Department of Planning and Environment
Keith Robertson	Manager, Wholesale and Retail Regulatory Policy Origin Energy
Sean Greenup	Origin Energy
tbc	Red Energy
Chris Guthrie	Acting Manager, Economic Development, Liverpool City Council
Anthony Hynes	Assistant Director, Pricing Team, Australian Energy Regulator
Scott Sandles	Australian Energy Regulator
Sam Stone (tbc)	Urban Development Institute of Australia
Annie Kiefer (tbc)	Vice President Sydney City Branch, Country Women's Association

Name	Role
Rod Howard	Chief Operating Officer Endeavour Energy
Andrew Schille	General Manager, Regulation and Corporate Affairs Endeavour Energy
Ty Christopher	General Manager, Asset Management Endeavour Energy
Peter Langdon	Manager, Asset Strategy and Planning Endeavour Energy
Kate McCue	Manager, Corporate Affairs Endeavour Energy
Jon Hocking	Manager, Network Regulation Endeavour Energy
James Tydd	Stakeholder and Community Relations Manager Endeavour Energy
Daniel Bubb	Pricing Manager Endeavour Energy
Patrick Duffy	Regulatory Strategy Manager Endeavour Energy
Terry Niemeier	AER Program Office Manager Endeavour Energy
Shelley Zerni	Customer Relationship Manager Endeavour Energy
Belinda Kallmier	Manager Customer Service Essential Energy
Retailers yet to confirm	AGL, Simply
Sue Vercoe	Workshop Facilitator, Managing Director Newgate Research
Sophie Travers	Associate Partner Newgate Communications
Apologies	
Lesley Scarlett	Executive Officer, Illawarra Pilot Joint Organisation (CCC)
Michelle Caruso	Area Manager, NSW Business Chamber (CCC)
Trevor Oldfield	President, Blacktown Chamber of Commerce (CCC)
Slavko Jovanoski	Assistant Director Australian Energy Regulator
Energy Australia	Requested follow up briefing
Bev Hughson	Public Interest Advocacy Centre Ltd
Ilias Benjelloun	Shareholder Representative
Mark McKenzie	Small Business Association

Presentation of draft proposal
to key stakeholders
March 2018



Endeavour Energy Draft Regulatory Proposal Presentation & Feedback Workshop Friday 16 March 2018

Summary

As part of its stakeholder engagement program for its 2019-24 Regulatory Proposal, Endeavour Energy hosted a regulatory proposal 'feedback' workshop in the Sydney CBD on 16 March 2018.

The purpose of the workshop was for Endeavour Energy executives to present, and seek feedback on a draft regulatory proposal for 2019-24, and its 2014-19 Remittal Proposal.

The presentation followed three 'deep dive' workshops in January and February 2018 which provided a transparent and detailed examination of expenditure plans and an opportunity to collaborate on the risks and benefits for customers. The sessions involved State and local government, ECA, PIAC, retailers, Endeavour Energy's Customer Consultative Committee, Endeavour Energy executives and senior managers, representatives from the AER's pricing team and the AER's Consumer Challenge Panel.

Endeavour Energy considered all feedback provided at the deep dives and made changes to its investment plans before presenting the proposal back to stakeholders. The presentation provided to stakeholders follows this summary.

This phase of engagement was made possible due to an extension granted by the AER which provided additional time for Endeavour Energy to undertake further, more detailed engagement on its regulatory plans for 2019-24 before submitting its overall proposal by 30 April 2018.

Key feedback

2014- 2019 Remittal

- Acknowledged positive outcome
- Questioned the packaging of 2014-2019 and 2019-2024 outcomes together – must maximise transparency and emphasise the end-point of the 2014-2019 process
- Called for a consultation period on the draft proposal that focusses on the \$110m that Endeavour is keeping and why that is in customers' interests
- Noted that Endeavour has a slightly different story to Essential
- Suggested including an infographic in the draft proposal

- Noted there is potential for some advocates to prepare letters to send to the AER with the proposal to make AER's job easier – ECA volunteered but apparently PIAC, Energy Users Association and the CCP also wrote letters for Essential

2019-2024 Proposal

Engagement

- Acknowledged quality of engagement and effort, Endeavour listened hard and responded
- Raised some broad questions: What has Endeavour learnt? What have benefits of engagement been? Where will engagement head?
- Commented on the importance of the move to ongoing engagement and not just structuring it around resets; importance of having the AER in the room
- Question on how Endeavour has engaged with SMEs and what the impact of the proposal will be on them

Capex

- Many questioned whether there is an opportunity to discuss CAPEX with stakeholders and also with the AER to 'narrow the gap' before the end of March/before lodgement – this is expected to involve liaising with the AER about the logic of its REPEX models
- Noted sensitivity around RAB influencing prices
- Noted that there is still a need a narrative on why Endeavour is looking for a 24% uplift in CAPEX in next period compared to last, particularly when CAPEX was not all spent – especially as Endeavour is an outlier and the other NSW distributors' proposals are fairly stable

Capital Contributions

- Many commented that this issue still needs more and broader consultation and were not satisfied with the explanation to date – questioned whether Endeavour is open to reversing the policy
- Noted the AER Board has also asked for more info and that Ausgrid is also reconsidering its policy
- One suggested this issue should have its own heading 'which customers pay and when' rather than be included as a minor point under the 'growth' heading as it actually cuts across a number of the stated issues
- Suggested the issue should be present in the context of the NEO
- Some discussion about the nature of outcome key stakeholders are seeking and the need for clarification about whether this was a national principles-based issue or an issue related specifically to Endeavour

Street Lighting

- Many noted there were positives in what has been proposed
- Suggested Endeavour also needs to engage with RMS
- Sought clarification that all new developments will have LED lighting

- Suggested consideration of loans to assist councils introduce LED lighting

Tariff

- Positive response overall - “good stuff”; particularly as it reflects deep dive feedback
- Noted the importance of retailer engagement and Endeavour liaising on two issues - how to communicate with customer and how to manage the measurement so customers can benefit
- Discussion on a potential trial (some ECA involvement) with retailers on an innovative tariff product
- Discussion on the importance of an outcome that removes cross subsidies and provides better equity and which also addresses the peak

Other

- Questions around whether Endeavour should broaden its focus beyond life support customers and look more broadly at how it can assist customers in need, including through social enterprise support
- CCP had some remaining questions re OPEX around forecasting and Endeavour’s application of the AER model and productivity assumptions

01

**2019-24 REGULATORY
PROPOSAL
WELCOME**

02

ENGAGEMENT – MAKING A STEP CHANGE IN OUR APPROACH

LISTENING AND LEARNING

Jan – Jun 2016



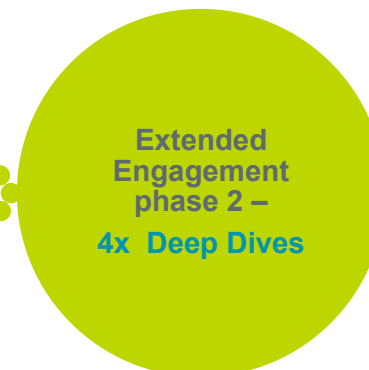
Jun – Dec 2016



Jan – Dec 2017

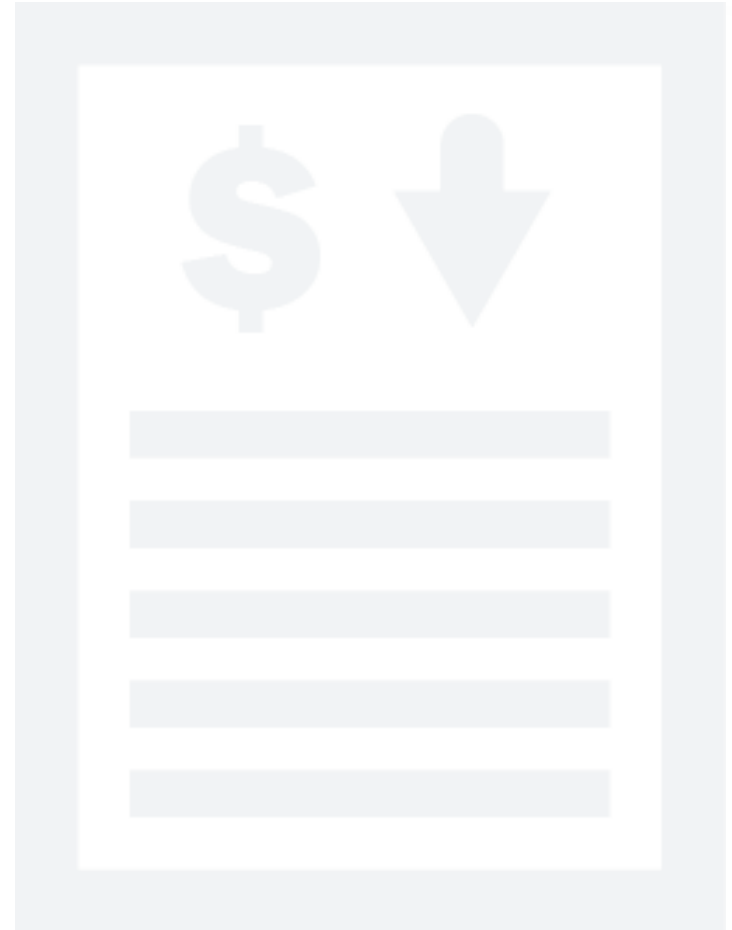


Jan – Jun 2018



CUSTOMERS' TOP TEN ISSUES

1. Affordability
2. Fair pricing through tariff design
3. Reliability
4. Security
5. Growth
6. Transformation - choice and control
7. Vegetation management
8. Street lighting
9. Vulnerable customers
10. Education and engagement



03

OUR PROPOSAL

1. AFFORDABILITY – PRICE CUTS FOR ALL CUSTOMERS

You said

Affordability is the key issue for most customers and stakeholders.

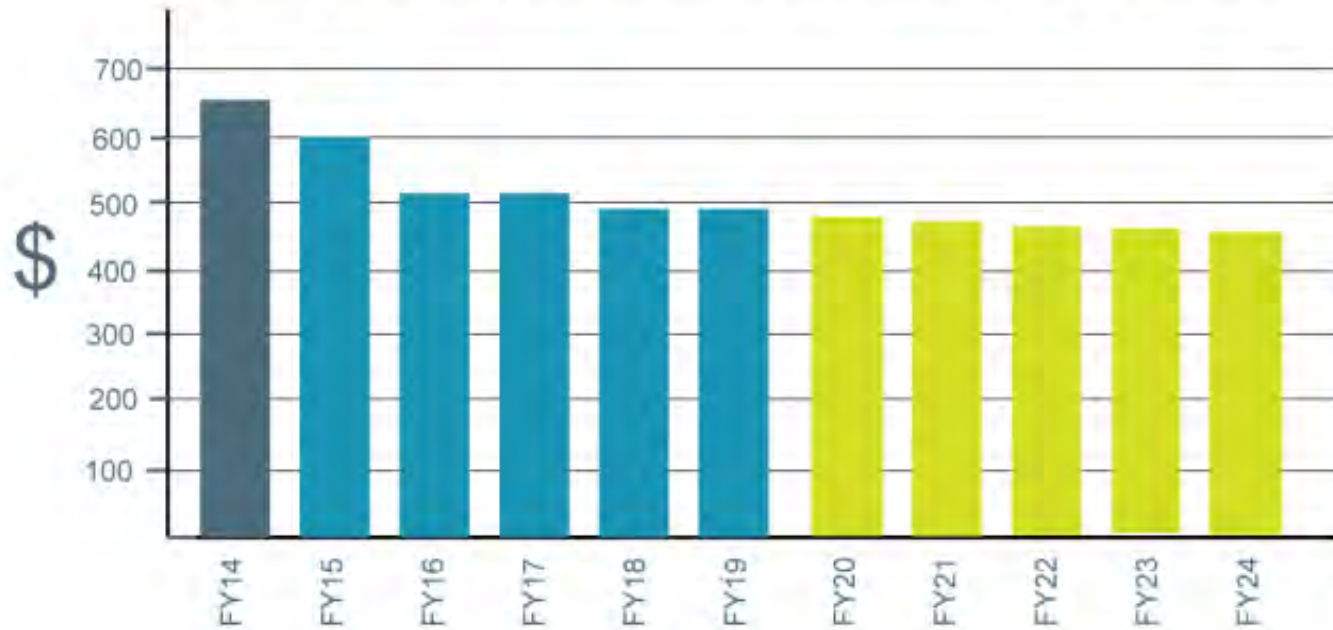
They want to see continued downward pressure on our 31% share of average electricity bills.

We will

- Deliver real price decreases of 1% each year for our distribution network customers, this includes our proposed remittal.
- Deliver these decreases while implementing pricing reforms that will provide increased opportunities for customers to control their bill.
- Lock in and maintain our real price decreases throughout the next regulatory period building on our demonstrated history of responding to incentive regulation.
- Hand back \$226m to our customers through these reduced charges during the next regulatory period.
- Continue to reduce underlying costs which will continue to reduce prices for customers.
- Deliver real price decreases for our public lighting customers.

PRICES - TRENDING DOWN FOR CUSTOMERS

Actual and forecast network distribution bill FY14 - 24



AFFORDABILITY - PRICE CUTS FOR ALL CUSTOMERS

We will

- Encourage greater efficiency in the way our network is used by introducing an opt-out seasonal demand tariff for new customer connections.
- Offer customers who replace their old basic meter with a smart meter the opportunity to opt-in to our seasonal demand tariff to secure the savings it can offer.
- Promote programs like *SolarSaver and CoolSaver* to educate customers through tangible personal experiences what smart meters, batteries and pricing can offer them.
- Facilitate the connection of distributed energy resources including solar and batteries to help customers connect with each other.

AFFORDABILITY & THE RATE OF RETURN

Committed to adopting the AER 2013 Guideline without amendment

WACC in our proposal is 6.11%, this compares to the AER's 2015 decision of 6.68%.

The AER Guideline provides a number of point estimates that will be applied. These include:

- a) Gearing – 60% debt
- b) Market Risk Premium – 6.5%
- c) Equity Beta – 0.7
- d) Credit rating – BBB+
- e) Gamma – 40%

The AER Guideline requires that the risk free rate and cost of debt be observed over an averaging period closer to the time of the decision.

AFFORDABILITY & OPERATING EXPENDITURE

Committed to adopting the AER's April 2015 opex allowance for 2017/18

- Our costs this year are \$65 million less than at the start of this regulatory period. This means we will be at or below the AER's operating expenditure allowance for this year. These savings will be locked in to be passed onto customers in the next regulatory period.
- We are not proposing any step changes to our operating expenditure.
- We will adopt the AER's decision for projecting our operating expenditure into the next regulatory period. Specifically:
 - Adopt the approach used by the AER to escalate the real cost of labour using benchmark measures that incorporate labour efficiency improvements.
 - Adopt zero real cost changes for the cost of materials.
 - Adopt the AER's method of scaling our operating expenditure for changes in size and scope of our network using the rate of change in customer numbers, circuit length and ratcheted maximum demand.

\$m real 19	2009 to 2014 Actual	2014 to 2019 Actual / Forecast	2019 to 2024 Directions Paper	2019 to 2024 Deep Dive Proposal	2019 to 2024 Current Proposal	
New connections	85	122	150	309	309	➡
Growth / Augmentation	1,190	258	400	448	418	⬇️
Replacement	814	623	850	850	802	⬇️
Reliability	60	19	20	20	20	➡
Other network	69	43	45	43	43	➡
Overheads	540	361	360	404	400	⬇️
Total System capital	2,758	1,426	1,825	2,075	1,992	⬇️
IT	94	121	90	91	91	➡
Vehicles	71	18	25	22	22	➡
Other	110	51	60	62	57	⬇️
Total Other	275	190	175	175	170	⬇️
Total Capital	3,032	1,616	2,000	2,250	2,162	⬇️

FAIR PRICING - TARIFF REFORM

You said

- Customers understand they can benefit from new ‘user pays’ ways of charging for electricity.
- Customers generally support transitioning to more efficient, cost reflective pricing with an opt-out option to the existing flat tariff as it gives them choice and control.
- Customer groups had concerns that charging windows were too wide and included shoulder periods, which could dilute pricing signals.
- Retailers wanted simplicity and uniformity in order to be able to develop a marketable product and pass through our tariffs to customers.

CHARGING WINDOWS

	Deep Dive			Revised TSS2 Proposal			
	Weekday High Season	Weekday Low Season	Weekend All times	Weekday High Season	Weekday Low Season	Weekend All times	
Peak Energy	3 – 8pm	n/a	n/a	Removed and replaced with a flat energy charge			change
Shoulder Energy	1-3pm & 8-10pm	3 – 8pm	n/a	Removed and replaced with a flat energy charge			change
Off Peak Energy	All other times	All other times	All times	Removed and replaced with a flat energy charge			change
High Season Demand	3 – 8pm	n/a	n/a	4 – 8pm	n/a	n/a	change
Low Season Demand	n/a	3 – 8pm	n/a	n/a	4 – 8pm	n/a	change

TARIFF STRUCTURES

		Fixed	Energy		Seasonal Demand
			Flat	STOU	
DEEP DIVE	Legacy Tariff	✓	✓	✗	✗
	Cost Reflective Tariff	✓	✗	✓	✓ (5 day average)
REVISED TSS2 PROPOSAL	Legacy Tariff	✓	✓	✗	✗
	Cost Reflective Tariff	✓	change ✓	change ✗	change ✓ (Single point monthly charge)

RELIABILITY

You said

Customers were generally satisfied with current reliability with most customers, on average, having supply **99.9%** of the time.

We will

- Focus on maintaining reliability across the existing network at the current five year average performance, limiting reliability improvements to the poorest performing areas, in accordance with licence conditions.
- Trial new technology like battery storage so that reliability is not compromised as we connect and utilise new generation and storage technologies in accordance with the CSIRO/ENA Electricity Network Transformation Roadmap. This industry roadmap is designed to prepare electricity distributors for a dramatically different future and save customers money.

SECURITY

You said

Customers have a genuine concern that we avoid a South Australia-style blackout.

We will

- Ensure asset management strategies are robust with capital and operating expenditure designed to deliver a safe, reliable and secure network.
- Promote demand management technologies to delay and offset capital investment. We will continue to implement technology trials (like our battery storage initiatives in West Dapto and Sydney's North West) and use lessons from these in our future decisions.
- Introduce cost-reflective pricing with a demand component. This will incentivise new customers with smart meters to reduce their peak demand in order to reduce strain on the network during periods of excessive heat.

ACCOMMODATING GROWTH

You said

Local councils, business advocates and developers want to see timely delivery of electricity infrastructure in new growth areas, to benefit both their economies.

We will

- Ensure demand, energy and customer growth forecasts are robust using the latest available information, independently verified methods and expert economic advice.
- Forecast expenditure requirements using the AER's top-down models and historic approach, testing these against our detailed plans for consistency.
- Make better use of demand management programs to offset capex required for each project through the Regulatory Investment Test for Distribution (RIT-D).
- Use existing network capacity (where feasible) or temporary substations (including mobile substations) to stage new infrastructure builds.
- Coordinate growth investments with asset renewal projects to achieve scope efficiencies.

CAPITAL CONTRIBUTIONS

Committed to supporting a 'beneficiary pays' framework

You said

Stakeholders felt it was appropriate for the beneficiaries of capital investment to pay for that investment.

We will

- Continue to minimise the costs to all customers for new connections.
- Continue to require customers to contribute to dedicated assets – expect to be about \$530 million (FY19 real \$) during the next period.
- Continue to fund shared assets – expected to be \$309 million (FY19 real\$) during the next period – as implemented in September 2017.
- Pass on the reduced revenue requirement from the different tax costs and asset returns associated with this change.
- Continue to utilise external market providers to efficiently deliver the shared asset component of new connections.
- Accept that this is a contentious issue and will continue to engage on this matter.

TRANSFORMATION - CHOICE AND CONTROL

You said

Customers are keen to know more about smart meters and batteries as a means to reduce/manage their consumption and their bills, and want our network to be ready to meet their future energy needs.

Local councils have shown strong support for investment in new greener technology, like extending battery storage trials to include council and commercial premises, and want a grid prepared for electric vehicles.

We will

- Prudently invest in new technologies to improve automation, asset information, communication and monitoring systems, increasing our capacity to host distributed energy resources, including electric vehicles and utilise demand side response to manage network demand.
- Utilise the AER's Demand Management Incentive Scheme and Demand Management Innovation Allowance to investigate demand management pilots and trials. Align our direction with the CSIRO/ENA Electricity Networks Transformation Roadmap to provide more choice and control for customers and reduce the need for network investment in the long term.
- Partner with local councils on technology trials and initiatives to reduce urban heat.
- Prepare the network so customers can connect and use new technologies to offset their own usage and feed excess back into the network for the benefit of other Endeavour Energy customers.

VEGETATION MANAGEMENT

You said

Most customers accept current tree trimming practices. Some want to us work more closely with councils to better balance safety and amenity.

We will

- Maintain our current approach on vegetation management and bushfire prevention using LiDAR technology and aerial patrols to identify trouble spots where trees may impact reliability and act on these areas as a priority.
- Partner with councils to jointly promote planting of appropriate species under power lines and the relocation of assets at their cost.

PUBLIC LIGHTING

Committed to delivering value for money service and pricing reform to support least overall cost technologies

You said

Local councils strongly support the roll out of LED street lights and would like to see earlier details of pricing, replacements, repairs and explore future technologies to assist in their decision making

Endeavour Energy should provide a clear plan for LED replacement in its proposal.

We will

- Propose an overall real reduction in public lighting charges in the order of 8% followed by annual CPI increases until the end of the period. This reflects the flow through of our operating cost reductions and the lower rates of return in the current market conditions.
- Propose to introduce pricing differential between LED and non-LED technology of 15% to reflect the expected maintenance savings from the increased density of LED lighting.

Impact

- Our pricing changes will mean that some councils will benefit more than others due to their current LED lighting populations.
- We expect that the network pricing benefits and energy cost savings will see all councils increase their take-up of LED lighting in their area.

VULNERABLE CUSTOMERS

You said

Supporting the most vulnerable members of the community is seen as being the responsibility of many sectors of the industry.

Consumers would like to see more done to assist 'life support' customers, while stakeholders are opposed to increasing fixed charges as this could unfairly disadvantage those with low usage

We will

- Minimise the risk of outages for 'life support' customers through improved technology and information.
- Continue our business efficiency programs to reduce costs which translates to savings for all customers.

EDUCATION AND ENGAGEMENT

You said

Increased education and consultation are seen as important in building trust and addressing issues such as bill impacts, reducing peak demand, consumer empowerment and ensuring that the roll out of assets is timely and meets demand.

The AER is seeking a frank, respectful and open conversation on customer benefits, risks and trade-offs.

We will

- Implement a 'no surprises' approach to our expanded engagement program with all stakeholders.
- Work more closely with retailers on customer education to increase their understanding of pricing and managing consumption.
- Strengthen our relationship with Regional Organisations of Councils to assist them in their various local government initiatives like reducing urban heat, street lighting and vegetation management.
- Adopt a long-term approach to engagement and embedding effective processes in our day-to-day operations in order to keep customers' interests at the centre of our decision making.

04

2014-19 REMITTAL

2014-19 REMITTAL – REAL BENEFITS FOR CUSTOMERS

Our efficiency programs since 2012 have delivered the lowest network charges in NSW.

Customers will benefit from a

1%

real annual decrease in network prices from FY20 to FY24

↓

994

fewer staff since 2012

↓

20%

in operating expenditure

99.9%

average reliability maintained without compromising safety

Our portion of household bills has gone down, while overall bills have gone up



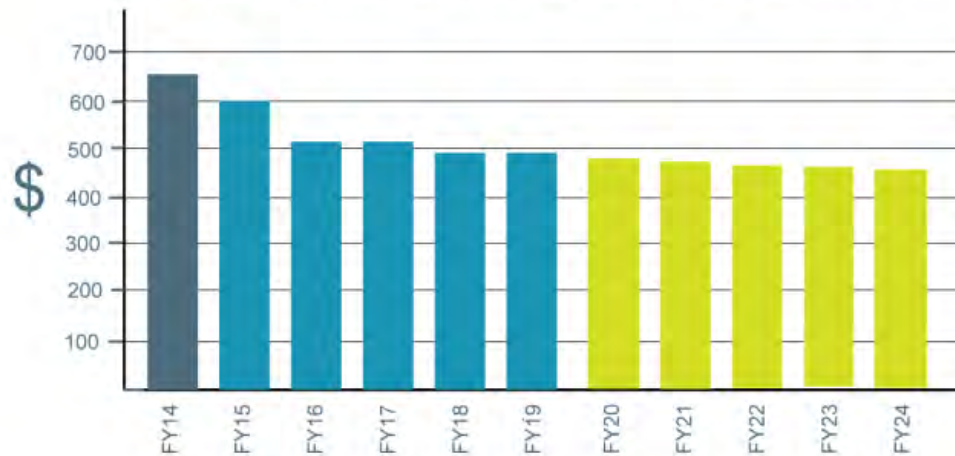
- Calculated on the basis of Origin Energy's standing offer for residential customers in Endeavour Energy's network
- Network impact includes Distribution, Transmission and Climate Change Fund contributions
- Non-Network impact includes Generation, Government Green Schemes and Retail Services

2014-19 REMITTAL – REAL BENEFITS FOR CUSTOMERS

Customers will not have to pay for
\$146m
in operating costs incurred in 2014-19 as shareholders will absorb this expense

We will forego
\$434m
in potential revenue in FY19 real \$

Actual and forecast network distribution bill FY14 - 24



We are committing to the AER's 2013 Rate of Return which reduces the benchmark cost of debt by \$367m through to 2019.

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FEEDBACK SESSION

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06

NEXT STEPS

Attendees - Feedback report on consultation on 2019-24 Regulatory proposal

Friday 19 March 2018 10.00-2.00pm

Auditorium, Level 15 Dexus Place, 1 Farrer Place, Sydney

Name	Role
Annie Kiefer	Vice-President Sydney City Branch, Country Women's Association
Michelle Caruso	Area Manager, NSW Business Chamber
Tim Harrison	Policy Officer - Energy and Water, Public Interest Advocacy Centre Ltd
Nic Pasternatsky	Procurement Manager, Western Sydney Regional Organisation of Councils
Oliver Derum	Associate Director, Advocacy and Communications, Energy Consumers Australia
Craig Memery	Policy Team Leader Energy and Water, Public Interest Advocacy Centre
Sam Stone	Manager Policy and Advocacy UDIA
Justin Drew	General Manager, Policy and Corporate Affairs, Urban Development Institute of Australia NSW
Julie Scott	Manager, Economic Development, Liverpool City Council
Rory Campbell	EWON
Douglas McCloskey	Policy Manager NCOSS
John Skinner	NSW Department of Planning, Energy and Resources
Eric Groom	AER Consumer Challenge Panel
Mark Henley	AER Consumer Challenge Panel
Mike Swanston	AER Consumer Challenge Panel
Louise Benjamin	AER Consumer Challenge Panel
Ilias Benjelloun	Shareholder Representative
Tony Narvaez	Chief Executive Officer, Endeavour Energy
Rod Howard	Chief Operating Officer, Endeavour Energy
Andrew Schille	General Manager, Regulation and Corporate Affairs, Endeavour Energy

Name	Role
Ty Christopher	General Manager, Asset Management, Endeavour Energy
Peter Langdon	Manager Asset Strategy and Planning, Endeavour Energy
Kate McCue	Manager, Corporate Affairs, Endeavour Energy
Jon Hocking	Manager, Network Regulation, Endeavour Energy
James Tydd	Stakeholder and Community Relations Manager, Endeavour Energy
Daniel Bubb	Pricing Manager, Endeavour Energy
Danielle Manley	Manager Customer Service
Selina O'Connor	Stakeholder Manager, Ausgrid
Karyn Looby	Stakeholder Engagement Manager Essential Energy
Nathalie Lindsay	Manager Network Regulation
Sue Vercoe	Managing Director, Newgate Research, Workshop Facilitator

Apologies:

Janine Young, Katherine Hole, Lesley Scarlett, Chris Guthrie, Iain Maitland, Mark Byrne, Paul Knight.