

# Networks NSW



## NSW Public Forum

### NSW DNSP Regulatory Proposals

10 JULY 2014

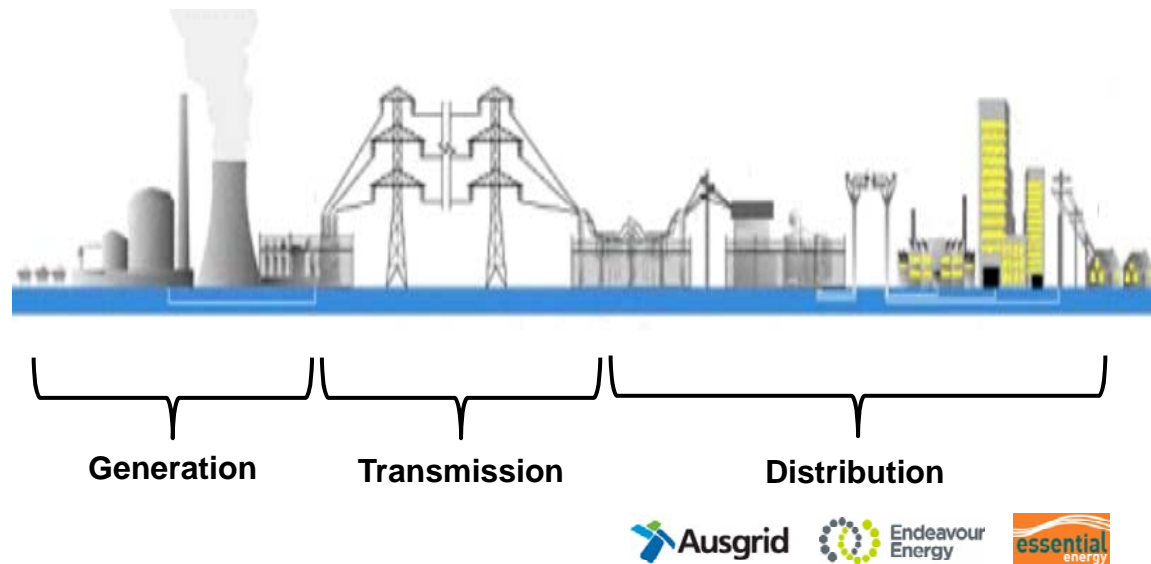
Vince Graham, Chief Executive Officer

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# AGENDA

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- 1 Who we are
- 2 Customer engagement
- 3 What we are doing to minimise network price increases
- 4 Headline outcomes for NSW distribution businesses
- 5 Tariff reform



# Networks NSW



## Section 1

## Who we are

## Who we are

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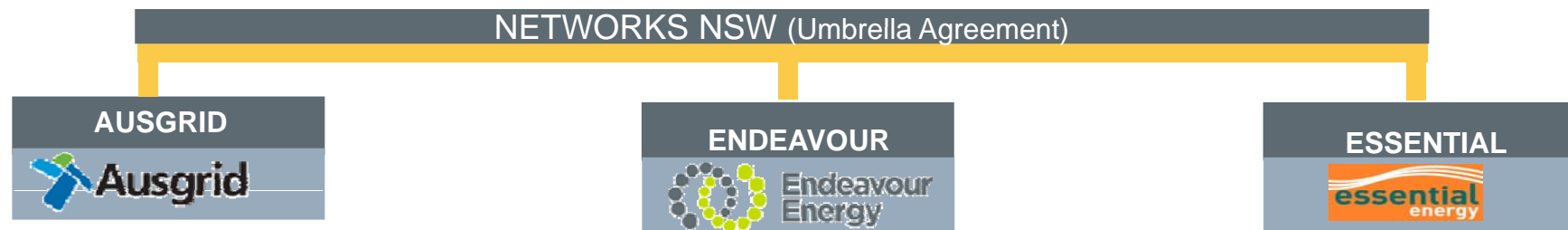
Comprises **Ausgrid**, **Endeavour Energy** and **Essential Energy** ('poles and wires in NSW')

- remain separate companies
- joint Board
- common CEO and senior management team

### Why was it established?

Networks NSW was formed by the NSW Government on 1 July 2012 to:

- **put downward pressure on electricity prices** and
- **save \$400M over 4 years**, to help fund electricity rebates for low income households



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## Our purpose and objective

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To be of service to our communities by efficiently distributing electricity to our customers in a way that is safe, reliable and sustainable.



### Safety

- Continuously improve safety performance



### Affordability

- Strive to contain our share of customers' electricity bills to CPI or less



### Reliability

- Ongoing reliability, security, sustainability of the network

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# Network Reform Program

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- The centrepiece of the reforms has been the Network Reform Program.
- The Network Reform Program commenced in 2011/12 and will deliver ongoing cost reductions over a period of 5 years.
- The first 3 years of this program has delivered \$2.67 billion of savings, including \$2.26 billion of capital savings.

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# The Impact of Potential Change of Ownership

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- On 10 June 2014, the NSW Premier Mike Baird announced that the Government at the March 2015 election would seek a mandate to undertake a long term lease of 49% of the 'poles and wires' network businesses.
- Essential Energy would be excluded.
- A scoping study is being undertaken to assess the structure of any sale and is due for completion by November 2014 .

# Networks NSW



## Section 2

# Customer engagement



# Customer Engagement

- A key focus for us is to enhance engagement with our customers
- We've commenced a detailed engagement program with customers, welfare groups, retailers and other stakeholders that will be ongoing.



# Customer Engagement

## Customer priorities

- 1. Pricing & affordability
- 2. Reliability
- 3. Safety
- 4. Implementing energy efficiency programs
- 5. Reliability

Customer research

Face-to-face meetings



Use of innovative channels (incl. social media)

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## What customers told us

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### Affordability

No more price shocks – want **affordable**, stable prices

### Reliability

Satisfied with **reliability** of network  
don't want to pay more for better reliability or less for reduced reliability

### Value

Improve customer **value** without affecting reliability

### Safety

Ensure **safety** of network

### Communications

Better **communications** channels: mobile apps, online



# Networks NSW

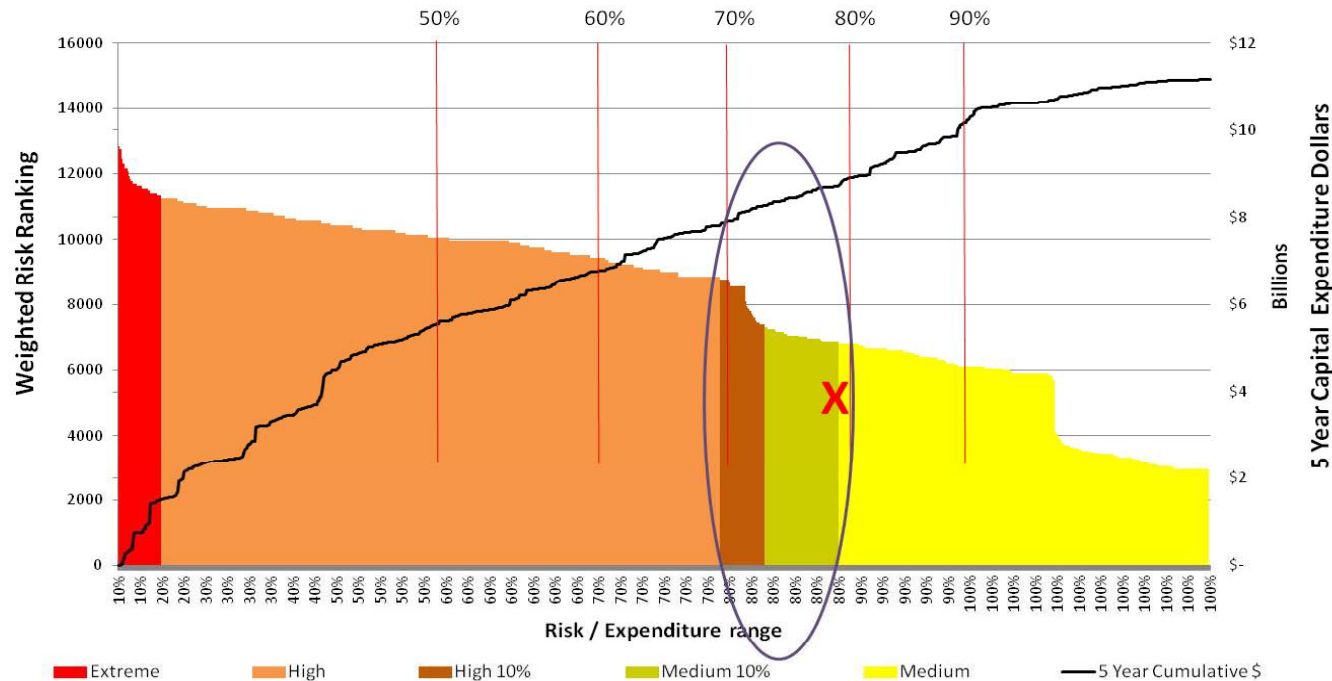


## Section 3

**What we are doing to  
minimise network price  
increases**

# Prioritising Capital Investment

- The overall investment portfolio was ranked using a risk prioritisation model.
- Resulted in significant capex deferral for the 2014-19 period of close to \$2 billion compared to initial planning estimates. Forecast capex for 2014-19 is \$6 billion lower than the AER's approved capex for 2009-14.



In addition to cost savings arising from capex reductions, we have also:

- Placed pressure on our operating expenditures to reduce costs in all areas
- Cost saving initiatives
  - Strategic procurement
  - Rationalising organisational structures & road fleets
  - Removing TSA dis-synergy costs
  - Eliminating stranded labour costs
  - Customer aligned enterprise agreements

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## Outcomes for customers

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\$5.4 billion in savings from Network Reform are resulting in:

- **Lower costs** from a lower Regulatory Asset Base (RAB) arising from lower than capex forecast in 2009-14
- **Distribution price increases below inflation** for the entire 2014-19 period (that is, real price reductions)
- **Maintained reliability and improved safety performance**

# Networks NSW



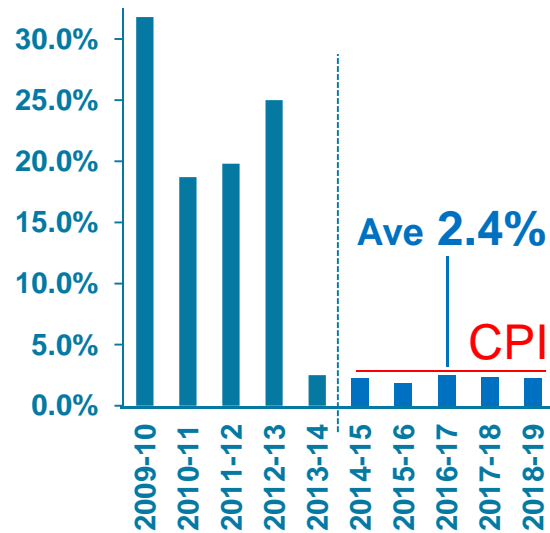
## Section 4

# Headlines for NSW DNSPs

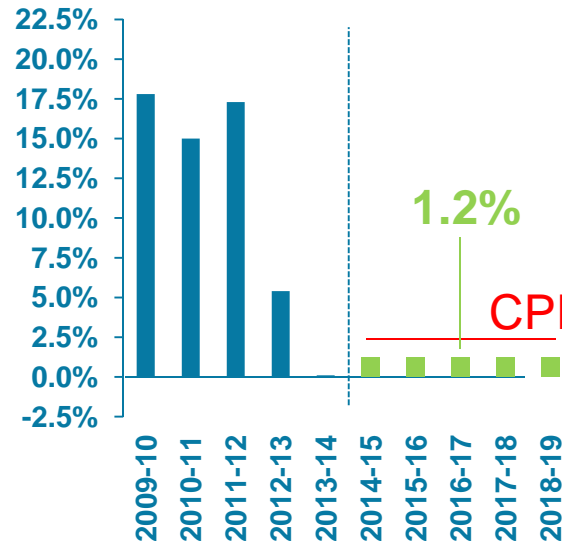


# Household Network Bill Increases

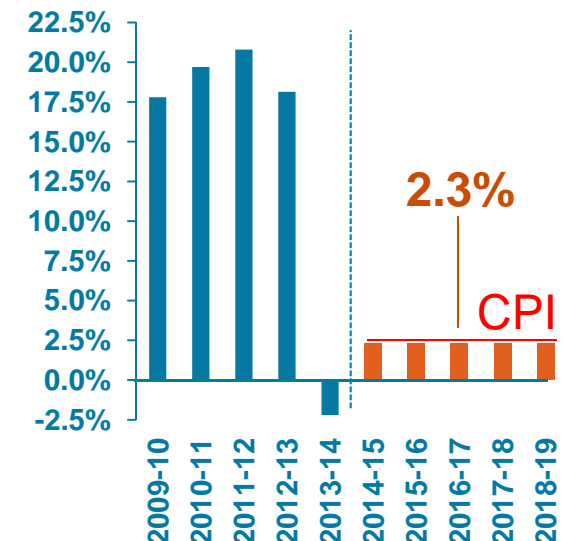
## Ausgrid



## Endeavour Energy



## Essential Energy



- Network charges make up about 50% of a household's electricity bill (Distribution 40%, Transmission 10%)
- Our share of **electricity bill increases** will be held at or below **CPI** for the next 5 years
- Our share of customers' **electricity bills** will fall in real terms
- Greater **stability** to help households and small businesses manage their budgets

# Annual Smoothed Revenues

Ausgrid, Endeavour Energy and Essential Energy have collectively proposed smoothed annual revenues of **\$24.2 billion** for standard control services (SCS) for the five year regulatory period commencing 1 July 2014

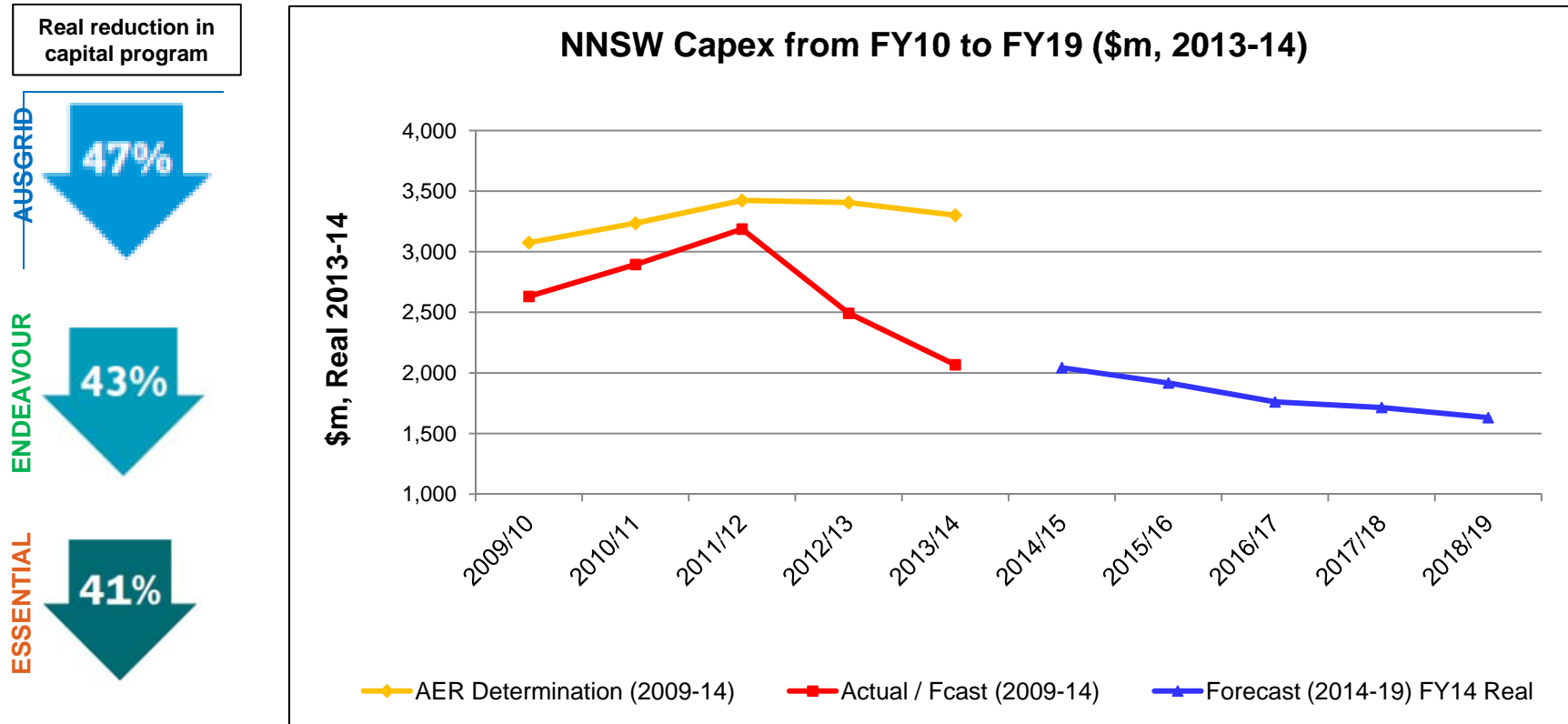
NSW DNSPs' proposed smoothed Standard Control Service revenues (\$ million, nominal)

	Proposed 2014/15	Proposed 2015/16	Proposed 2016/17	Proposed 2017/18	Proposed 2018/19	Total 2014-19
<b>Ausgrid</b>	\$2,314	\$2,372	\$2,425	\$2,499	\$2,580	<b>\$12,189</b>
<b>Endeavour</b>	\$1,022	\$1,022	\$1,046	\$1,068	\$1,101	<b>\$5,258</b>
<b>Essential</b>	\$1,353	\$1,352	\$1,348	\$1,347	\$1,357	<b>\$6,757</b>
<b>TOTAL</b>	<b>\$4,688</b>	<b>\$4,746</b>	<b>\$4,819</b>	<b>\$4,914</b>	<b>\$5,038</b>	<b>\$24,205</b>

^ Includes metering and ancillary network services

# Capex – Significant reductions

Proposed consolidated capex during 2014-19 is 45% below the forecast rate of inflation over the 5 year period.



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## Drivers impacting opex

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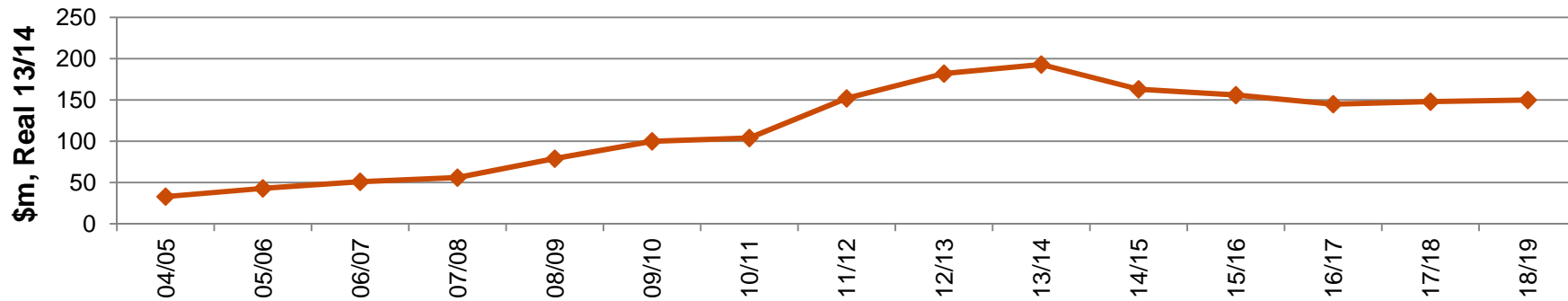
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Productivity improvements that are delivering savings in opex, are being largely offset by changes in our operating environment requiring increased expenditure in some areas.

1. Increased vegetation costs for bushfire mitigation
2. Retail dis-synergy costs (Ausgrid)
3. Costs resulting from changes to regulatory obligations (i.e. private mains)
4. Costs of implementing network reforms (i.e. exit costs)
5. Real cost escalation

# Vegetation management

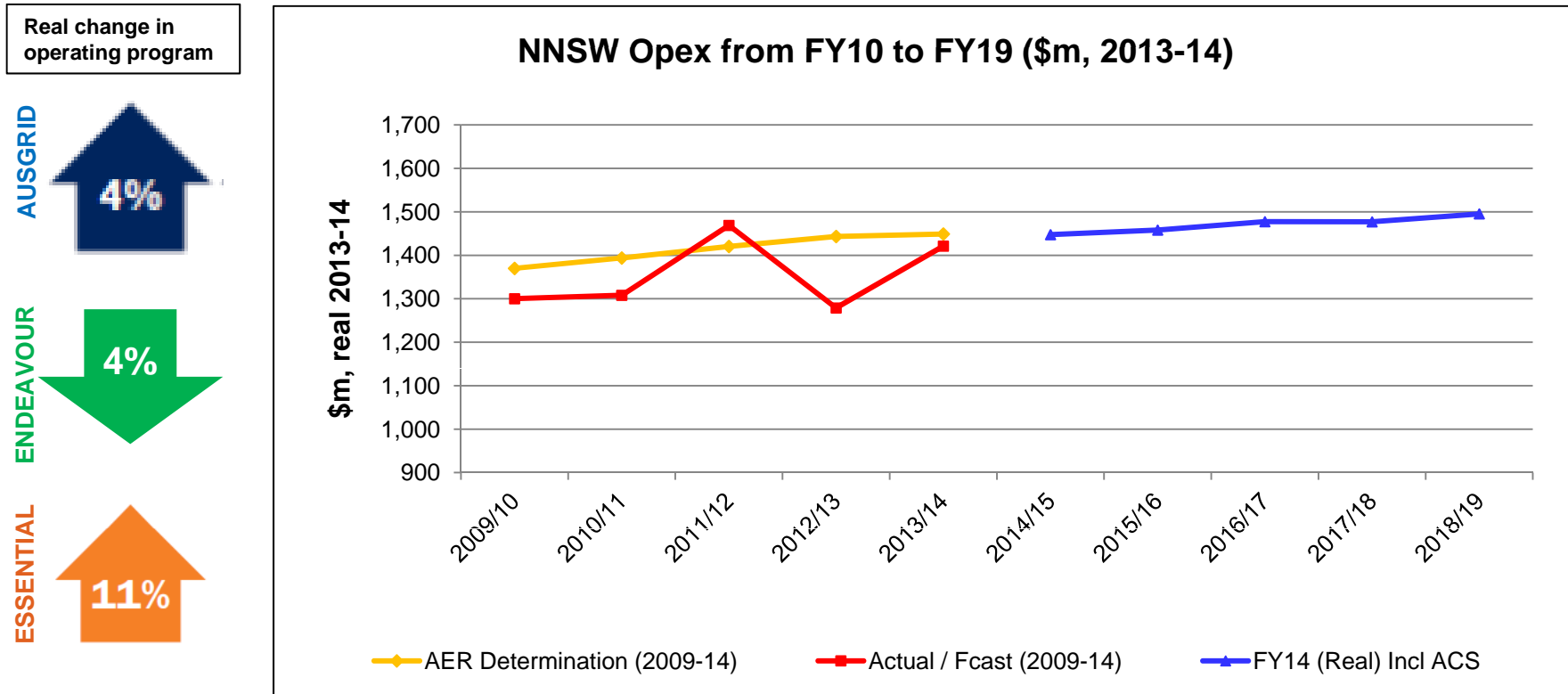
Costs to manage vegetation increased in the current period due to increased compliance obligations particularly with regard to bush fire and reliability risk. Allowance for this period was based on a lower cost structure from the 2004-09 regulatory period.



Essential Energy Vegetation Management Opex (\$million, 2013-14)

# Operating cost

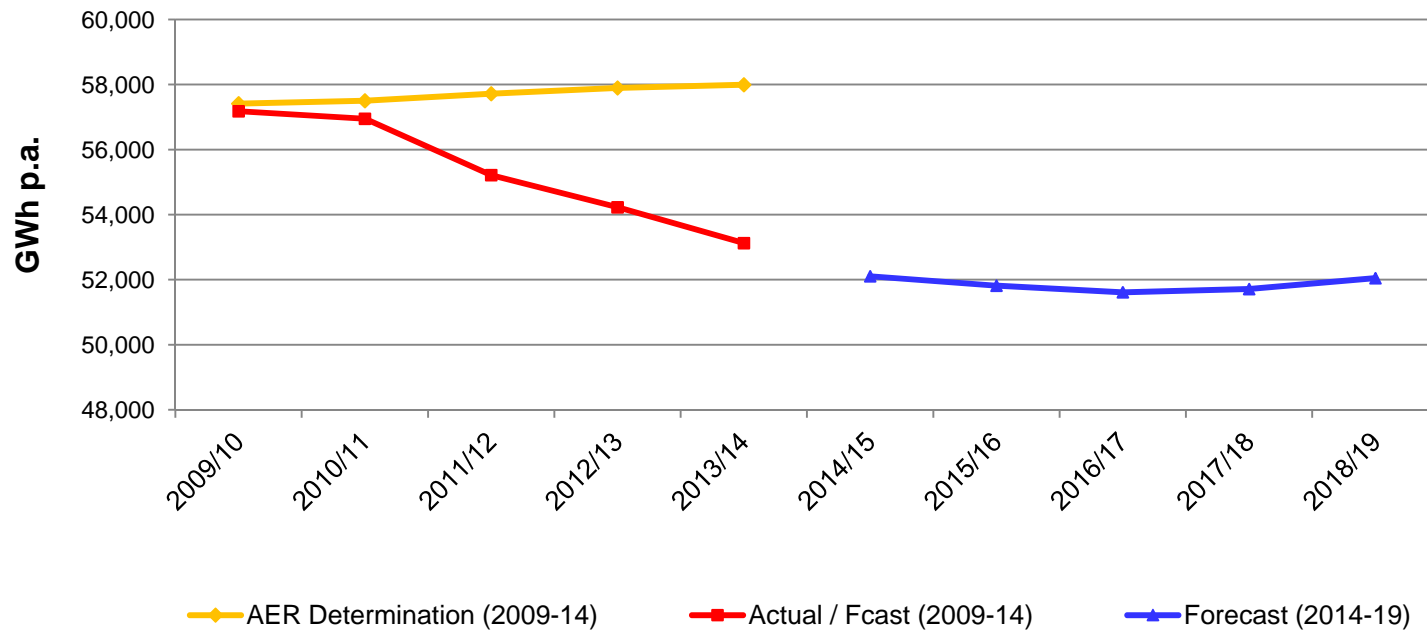
Consolidated opex during 2014-19 is expected to be 4% above the forecast of inflation over the 5 year period.



# Energy Forecasts – Decline

Average consumption is expected to decline by 0.4% per annum on average across the three businesses during 2014-19. Current period consumption is expected to be 4% below the AER's determination.

### Consolidated energy consumption from FY10 to FY19 (GWh)



## WACC Summary

We have proposed a WACC of **8.83** per cent that we consider to be on the low end of an indicative WACC range. This is significantly below last period where the allowed WACC was **10.02** per cent.

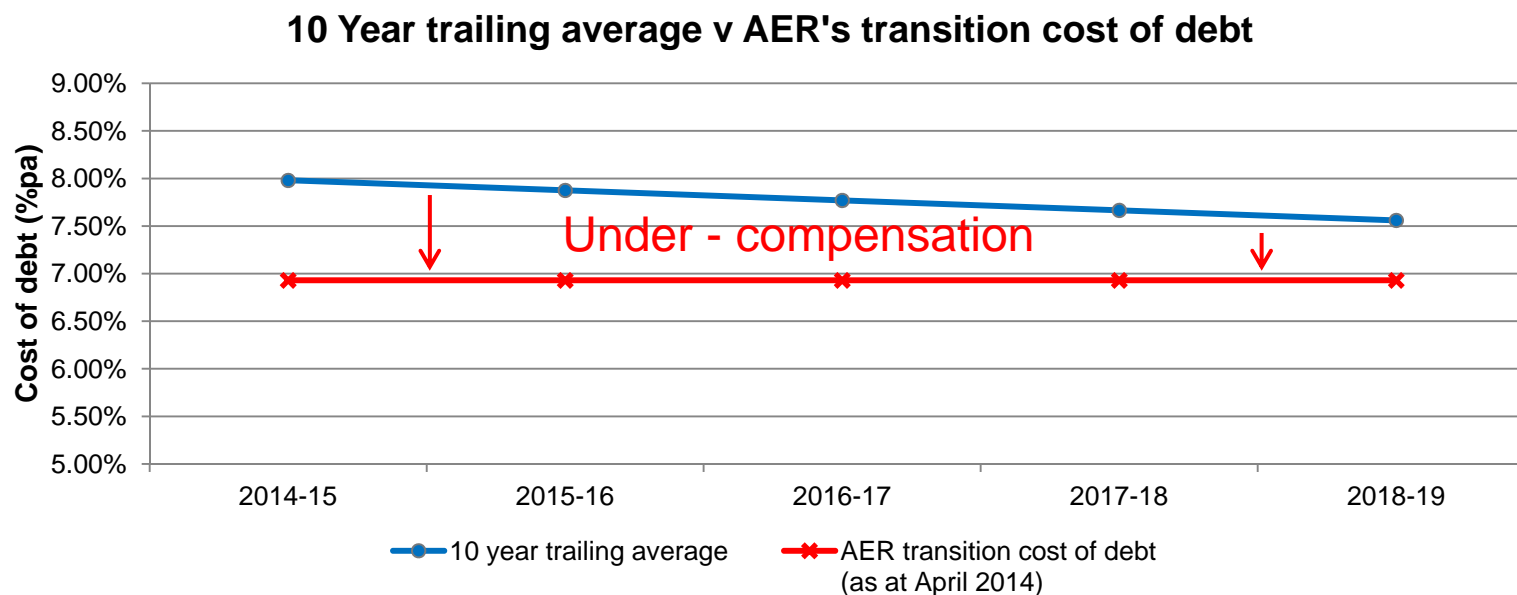
	Proposed WACC %	Reasonable range of estimates - %
<b>Overall WACC</b>	<b>8.83%</b>	<b>8.83% - 9.44%</b>
<b>Cost of equity</b>	10.11%	10.11% - 11.50%
<b>Cost of debt</b>	7.98%	7.98% - 8.06%
<b>Gearing</b>	60%	60%
<b>Gamma</b>	25%	25%



# WACC – Trailing average cost of debt

We have proposed a 10 year trailing average approach to setting the cost of debt – 7.98% to be annually updated.

In contrast, the AER’s proposed transition to the trailing average will penalise businesses who already issue debt using a benchmark efficient staggered portfolio basis based on current rates continuing to the future:



## WACC – Trailing average cost of debt

The level of under-compensation is significant for the NSW businesses at close to \$1 billion over 5 years across Ausgrid, Endeavour and Essential:

Under-compensation from AER transition (\$m, nominal)						
	2014-15	2015-16	2016-17	2017-18	2018-19	Total 2014-19
<b>AUSGRID</b>	\$91	\$97	\$103	\$108	\$113	<b>\$510</b>
<b>ENDEAVOUR</b>	\$35	\$38	\$40	\$42	\$44	<b>\$198</b>
<b>ESSENTIAL</b>	\$43	\$46	\$49	\$52	\$55	<b>\$244</b>
<b>TOTAL</b>	<b>\$168</b>	<b>\$180</b>	<b>\$191</b>	<b>\$201</b>	<b>\$211</b>	<b>\$951</b>

\* Assuming rates remain at April 2014 levels over the 5 years.

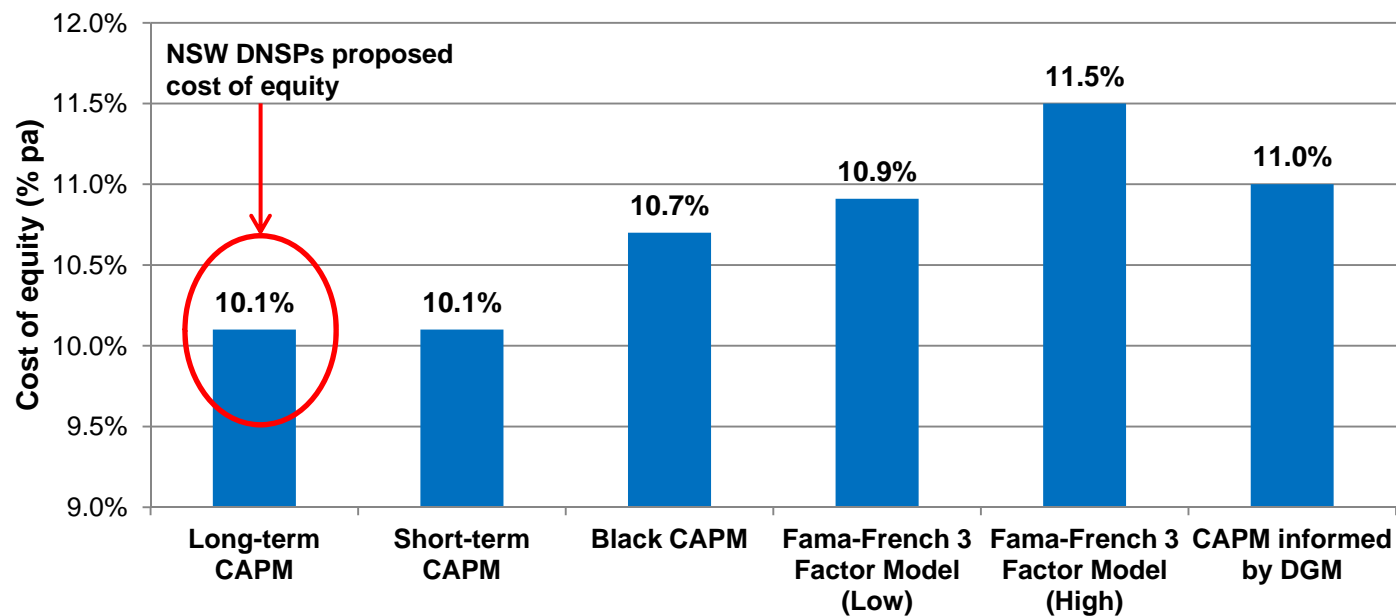
# WACC – Low proposed cost of equity

We have proposed a stable long-term approach to setting the cost of equity:

10.1% based on the CAPM using long-term estimates of the risk free rate 4.78%, MRP 6.5% and the best available empirical estimate of equity beta 0.82.

Our proposed cost of equity is at the low end of the reasonable range of estimates:

### Cost of equity estimates (reasonable range)



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## Changes to user pays services

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The AER has determined that the following services will be classified as 'Alternative Control Services', for which cost reflective prices will be determined and charged directly to the customer benefiting from the service. The changes will take full effect from July 2015.

**Public Lighting** – some price increases will exceed CPI to achieve cost reflectivity.

**Metering** – previously bundled into the general network tariff. Will now be visible to customers in a separate charge.

**Ancillary Network Services** – previously partially subsidised through the general network tariff. Prices for some services will rise as subsidies are removed and prices fully reflect costs.

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## Public Lighting

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- Largely implemented the pricing models approved in the AER's 2010 determination, updated to reflect the current costs.
- Essential Energy has been under-recovering on street lighting in the current regulatory period.
- Essential Energy has proposed price increases to achieve cost reflective pricing closer to Ausgrid and Endeavour.
- We will work further with the AER and customers to develop alternatives to the AER's models to help provide pricing transparency and simpler customer bills.

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## Issues driving metering prices

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Each DNSP has worked to minimise barriers for metering competition when developing cost reflective prices, within the customer prices constraints and individual circumstances. Differences include:

- Ausgrid has invested heavily in Type 5 meters and will need to recover its costs. This will lead to a higher exit fee than for the other DNSPs.
- Essential and Endeavour have accelerated depreciation of the existing assets given the lower value of the existing asset base.



# Networks NSW



## Section 3

# The need for tariff reform

## Declining electricity use puts pressure on customer prices

### 1. Historic tariff structures

- Network costs mostly **fixed**
- Customer charges mostly **variable** - based on how much electricity is used - on an inclining scale
- Price structures don't reflect costs and are designed to discourage network utilisation
- Consumer impact of declining consumption is perverse and regressive







### 2. Technology

- Customers who can afford technology can **avoid variable electricity charges** (ie home owners with disposable income)
- Those that **can't afford or can't access technology bear the burden of** declining electricity consumption (renters, high density units, low incomes)

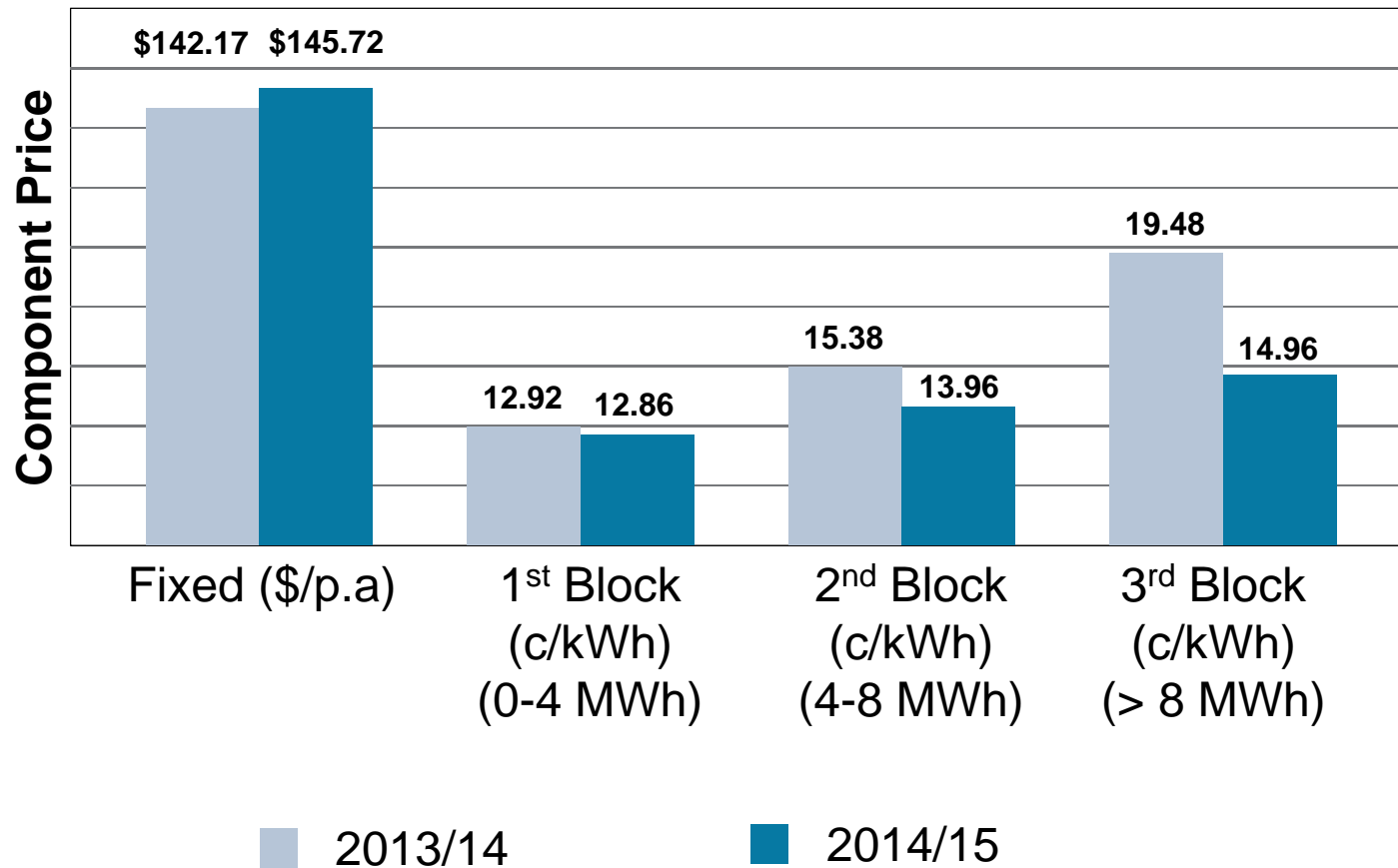




# Different ways of charging for electricity use

<h3>Inclining block</h3>  <p>DIFFERENT RATES ARE CHARGED FOR ELECTRICITY USE. THE FIRST PART OF ELECTRICITY USE IS CHEAPER THAN ALL USAGE AFTER IT.</p> <p><small>This is the most common tariff for households in NSW.</small></p>	<h3>Declining block</h3>  <p>THE FIRST PART OF ELECTRICITY USE IS MORE EXPENSIVE THAN ALL USAGE AFTER IT.</p>	<h3>Flat tariff</h3>  <p>ALL ELECTRICITY USE IS CHARGED AT THE ONE PRICE. MANY HOMES IN REGIONAL NSW ARE ON THIS TARIFF.</p>
<h3>Time-based pricing</h3>  <p>THE RATE FOR ELECTRICITY USE CHANGES AT DIFFERENT TIMES OF THE DAY. IT IS USUALLY CHEAPER IN OFF PEAK PERIODS AND MORE EXPENSIVE IN PEAK TIMES.</p>	<h3>Capacity or demand charge</h3>  <p>A CHARGE BASED ON THE MAXIMUM AMOUNT OF ELECTRICITY USED DURING A PERIOD OF TIME.</p> <p><small>Usually applies to large businesses and covers costs for networks to meet the businesses' peak use.</small></p>	<h3>Load control</h3>  <p>A CHEAPER RATE IS CHARGED TO ALLOW NETWORKS TO TURN OFF APPLIANCES IN YOUR HOME AT CERTAIN TIMES, LIKE OFF PEAK HOT WATER.</p>

## Ausgrid Residential IBT (not to scale)



Tariff reform is essential if we are to meet electricity customers' long-term interests.

To address current tariff challenges, the following future options are being considered:

- Continue to provide inclining blocks?
- The move to single block tariffs? (taxi fare tariffs)
- The move to declining, rather than inclining, blocks?

Additional consultation will take place over the next 12 months on our approach to future tariff options

*Stakeholder views on these options are welcomed*

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## Next Speakers

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Rod Howard, Chief Operating Officer,  
Endeavour Energy

Joe Pizzinga, General Manager Finance & Compliance,  
Ausgrid

Gary Humphreys, Chief Operating Officer,  
Essential Energy

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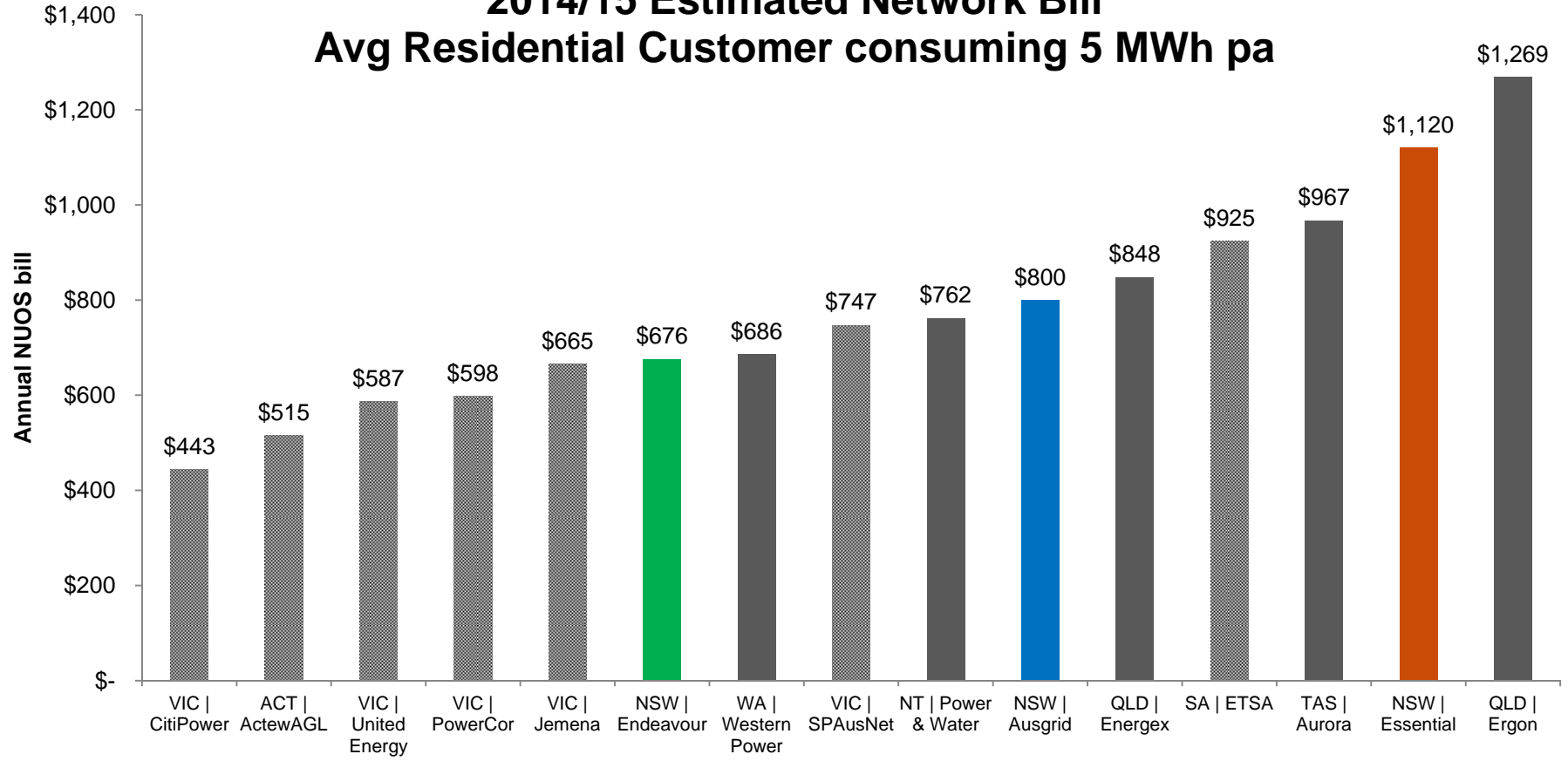
## Optional Material

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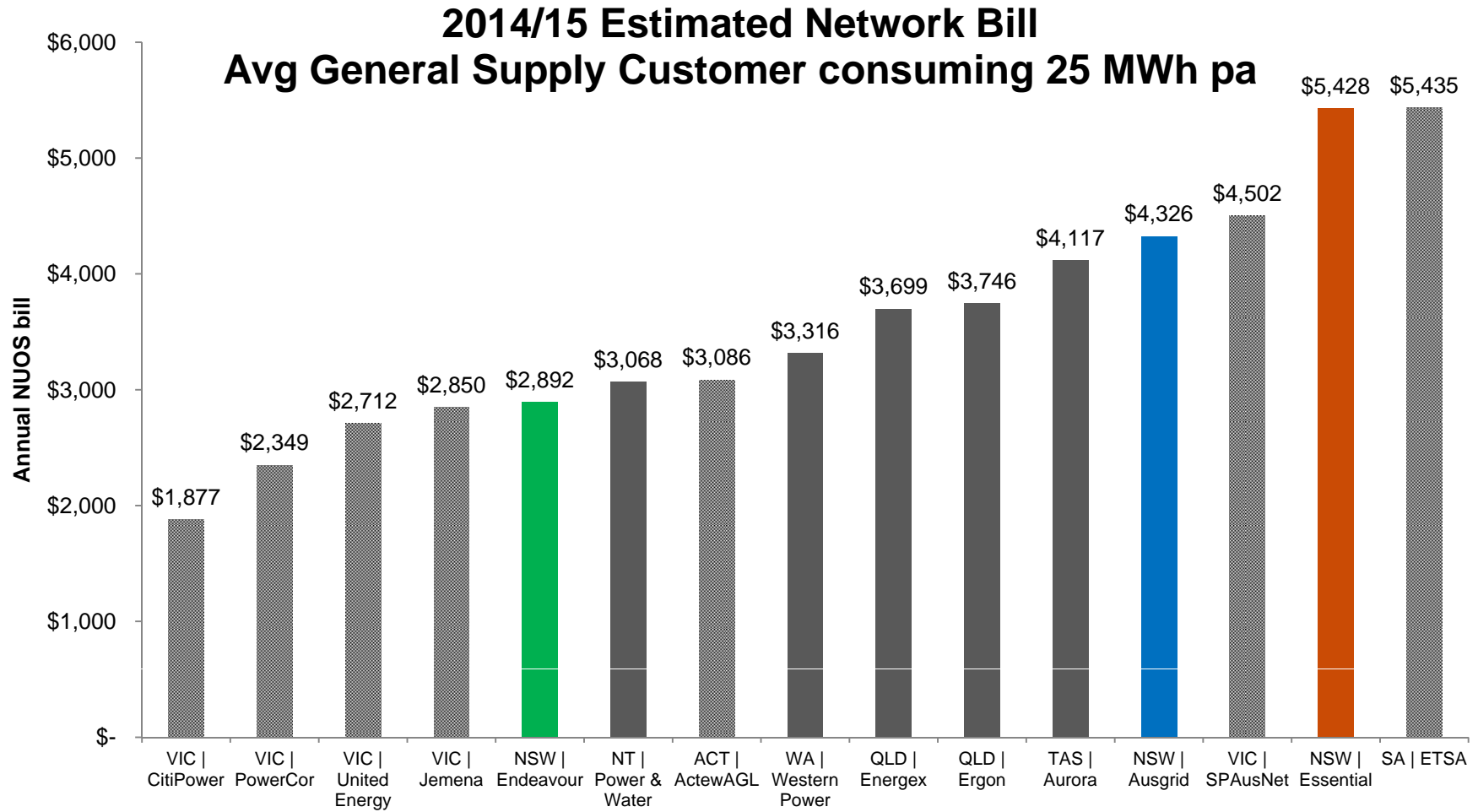
Following is optional material

# Optional Material

## 2014/15 Estimated Network Bill Avg Residential Customer consuming 5 MWh pa



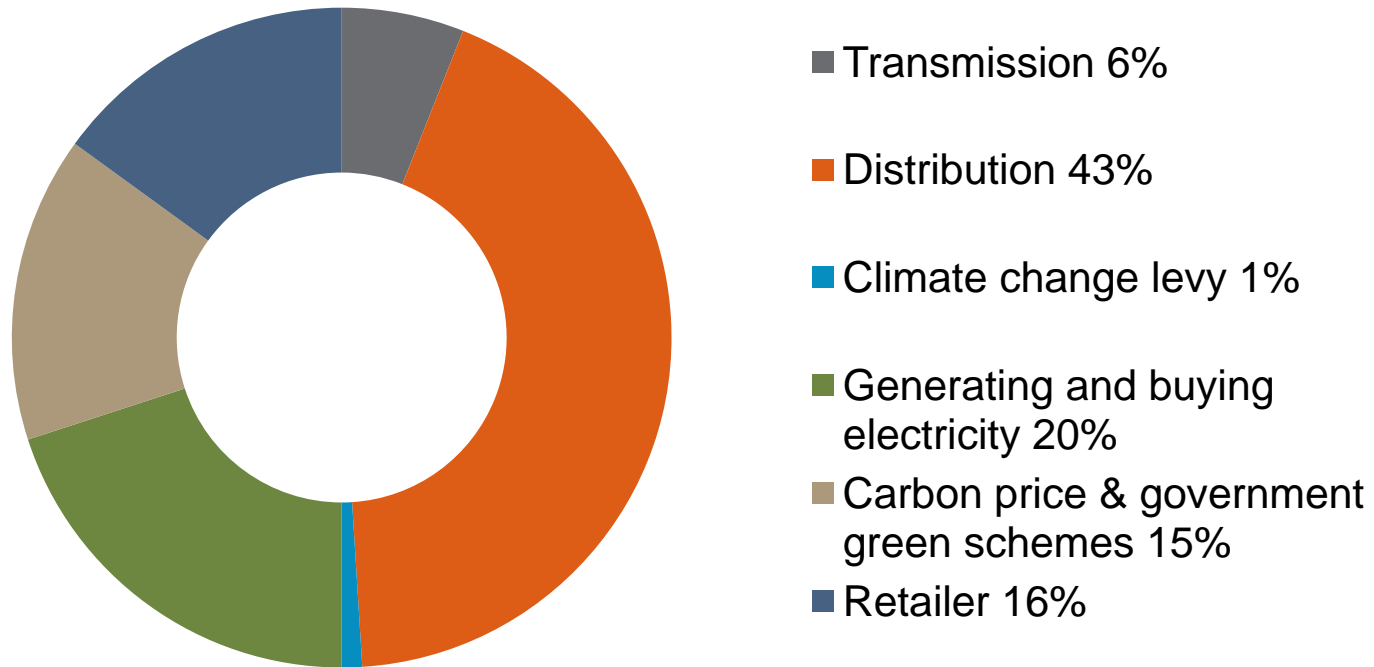
# Optional Material



# Our share of your bill

Network charges make up about 50% of a household's electricity bill  
(Distribution 40%, Transmission 10%)

Electricity bills are made up of the following components in Essential Energy's network area.





# Optional Material

## AER project timetable: Regulatory determinations

State/ Territory	Service provider	Form of transitional arrangement (length of process)	Regulatory control period		Framework & Approach	Regulatory process				
			Date	Length		F&A paper published	Regulatory proposal due	Draft decision published	Revised regulatory proposal due*	Submissions close*
NSW/ACT	Ausgrid, Endeavour Energy, Essential Energy, ActewAGL	Placeholder determination (3 months)	1 Jul 2014 - 30 Jun 2015	1 yr	n.a.	31 Jan 2014	n.a.	n.a.	n.a.	30 Apr 2014
		Full determination (11 months)	1 Jul 2015 - 30 Jun 2019	4 yrs	Part 1: 31 Mar 2013 Part 2: 31 Jan 2014	31 May 2014	30 Nov 2014	Jan 2015	Feb 2015	30 Apr 2015
Qld/SA	Energex, Ergon Energy, SA Power Networks	Preliminary determination with mandatory re-opener (12 months)	1 Jul 2015 - 30 Jun 2020	5 yrs	30 Apr 2014	31 Oct 2014	30 Apr 2015	Jul 2015	Jul 2015	31 Oct 2015
Vic	CitiPower, Powercor, Jemena, Jemena, SP AusNet, United Energy		1 Jan 2016 - 30 Dec 2020	5 yrs	31 Oct 2014	30 Apr 2015	31 Oct 2015	Jan 2016	Jan 2016	30 Apr 2016
Tas	Aurora Energy	No transitional arrangements (15 months)	1 Jul 2017 - 30 Jun 2022	5 yrs	31 Jul 2015	31 Jan 2016	30 Sep 2016	Dec 2016	Jan 2017	30 Apr 2017

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## Optional Material

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### Investment Prioritisation – Elements of risk

#### Network Reliability

- How is this project intended to impact on reliability on the network? Objective - Customers in your electrical region should, on average, receive comparable service standards to customers in like situations within Australia.

#### Public Safety, Environmental and Regulatory Impact

- All known safety, environmental and regulatory non-compliances having been identified are treated with the highest priority to ensure the risks are contained. The proposed works are essential to ensure that safety or environmental risks are mitigated, and/or to ensure compliance with Statutory/Regulatory obligations.

#### Network Initiated Fire

- Mitigate the risk of personal injury or property damage due to the network or network activity.

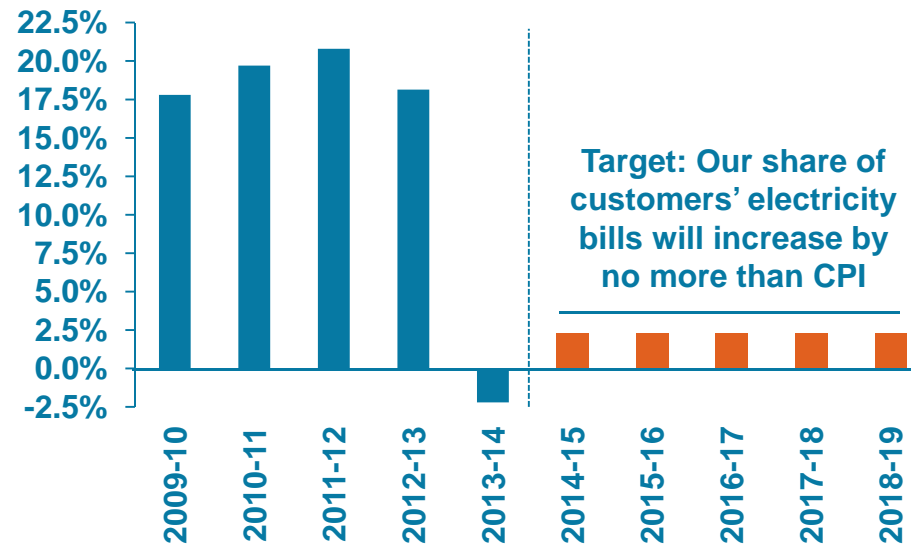
#### Workplace Health & Safety

- To improve the overall level of WH&S standards in accordance with organisational goals for targeted improvement by removing or treating identified hazards.

#### Network Capacity

- To ensure that there is sufficient capacity in the network to meet the demands placed on it and ensure compliance with regulatory requirements.

# Household Network Bill Increases - **ESSENTIAL**

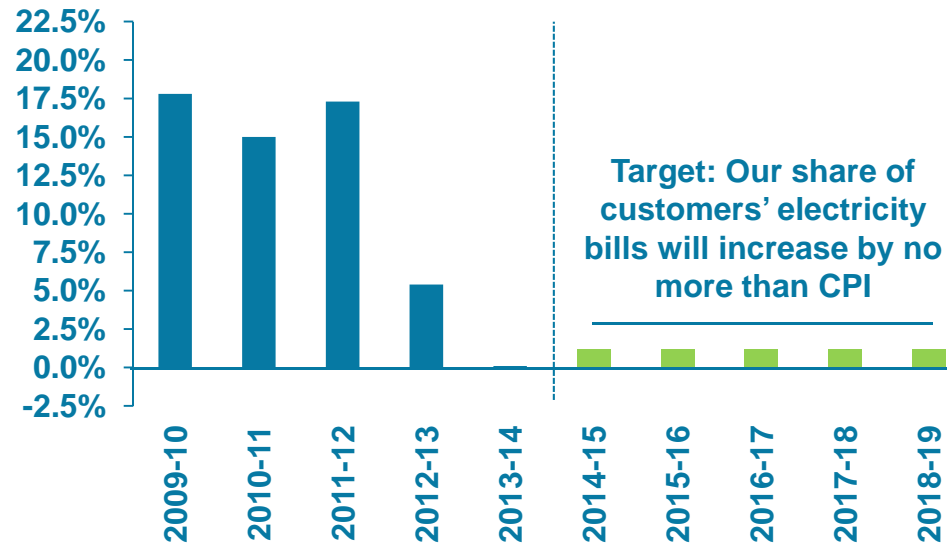


## Past and proposed average household price increases

Year	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2014-15	2015-16	2016-17	2017-18	2018-19
Dollar change	\$116	\$152	\$191	\$201	-\$29	-\$40	\$30	\$30	\$31	\$32	\$32
Percentage change	17.8%	19.7%	20.8%	18.1%	-2.2%	-3.1%	2.3%	2.3%	2.3%	2.3%	2.3%



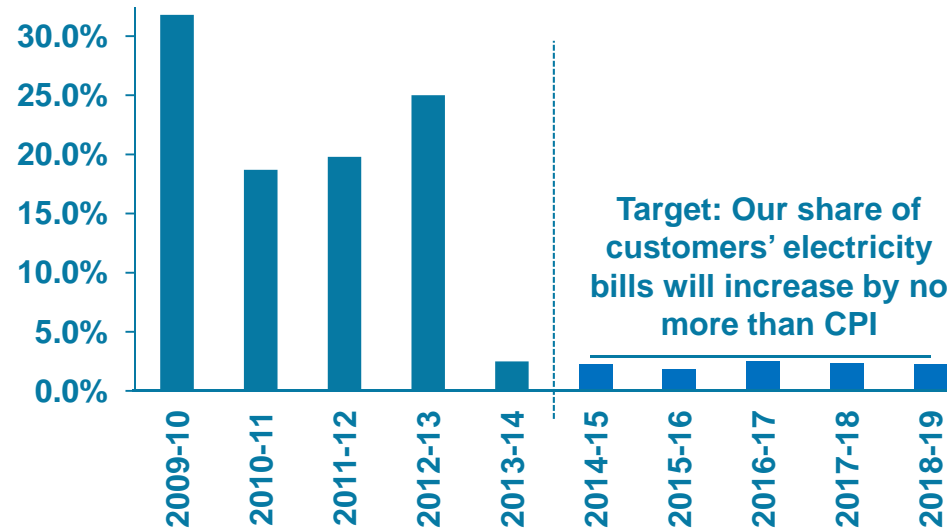
# Household Network Bill Increases - ENDEAVOUR



Past and proposed average household price increases											
Year	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2014-15	2015-16	2016-17	2017-18	2018-19
Dollar change	\$65	\$64	\$85	\$31	\$1	-\$36	\$7	\$ 8	\$ 8	\$ 8	\$ 8
Percentage change	17.8%	15.0%	17.3%	5.4%	0.1%	-5.9%	1.2%	1.2%	1.2%	1.2%	1.2%



# Household Network Bill Increases - AUSGRID



Past and proposed average household price increases											
Year	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2014-15	2015-16	2016-17	2017-18	2018-19
Dollar change	\$108	\$83	\$105	\$158	\$20	-\$13	\$18	\$15	\$21	\$20	\$20
Percentage change	31.8%	18.7%	19.8%	25.0%	2.5%	-1.6%	2.2%	1.8%	2.5%	2.3%	2.2%

