Power and Water Corporation's
2019-24 Regulatory Proposal
AER Public Forum - 12 April 2018

POWER AND WATER CORPORATION

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Generation

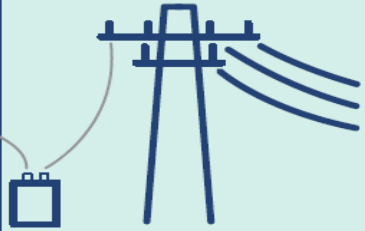
Power plant generates electricity

Transmission

Transformer converts low voltage electricity to high voltage for efficient transport

Transmission lines carry electricity long distances

Distribution



Substation transformer converts high voltage electricity to low voltage for distribution

Distribution lines carry low voltage electricity to consumers

Retailer

Retailers purchase electricity on behalf of consumers and provide consumers with their electricity bill.

Customers

Homes, offices and factories use electricity for lighting and heating, and to power appliances

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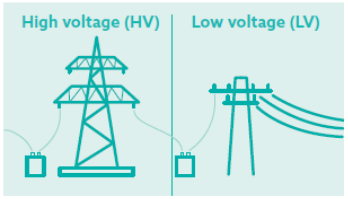
Our Services

Transmission & Distribution Services | Our main service is common distribution service

- Moving energy over our network from the Generators to your homes and business



Metering Services | We provide metering services to all our customers

- Smart meters to large residential customers and all businesses over 40 MWh
- Accumulation meters to everyone else
- Read and provide these reads to retailers for billing purposes

Ancillary Services | We provide a range of user pay services

- Design and site establishment activities
- Supporting connections to our network

Our engagement | Customer and stakeholder engagement that informed our proposal

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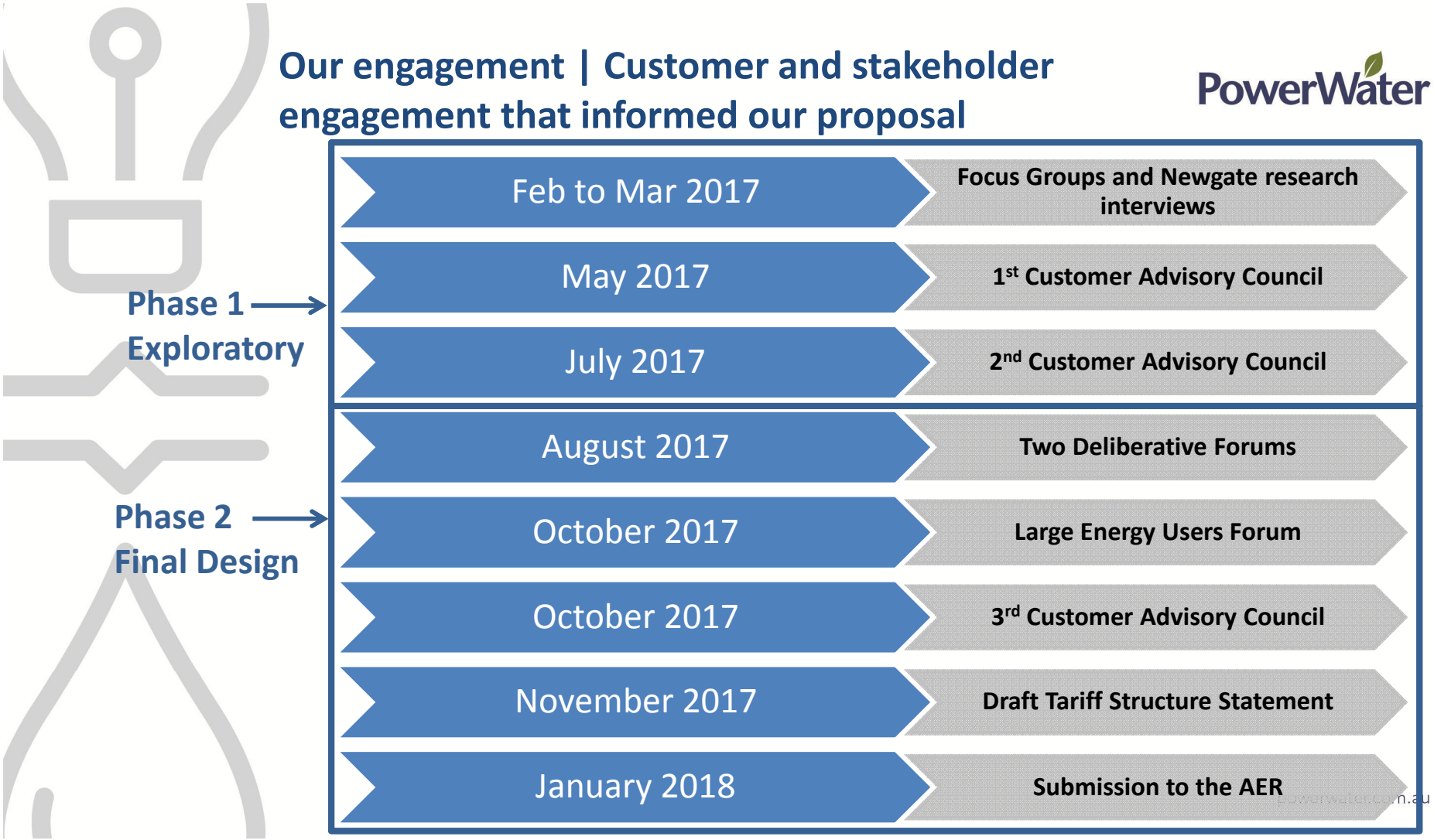

Pricing Summary

Our network price outcomes

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Households| 1.4% or $16 decrease for a typical residential customer consuming 8,500kWh per year with an accumulation meter, which at 44% of the typical retail bill represents a 0.36% decrease.

Small businesses | 4.9% or $207 increase for a typical small business customer consuming 38,000kWh per year with an accumulation meter.

Large users | 11% or $9,758 decrease for large industrial customers consuming 1,000,000kWh per year.

Overall | We will be cheaper ($97 pa less revenue per customer on average).

Proposal Summary

Our proposal allows us to deliver on our engagement feedback

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Demand

We are investing to maintain system-level reliability and improve outcomes for customers with poor performance;

We are moving to sustainable pricing structures;

We will use smart meters as our standard for all new customers and when replacing faulty meters;

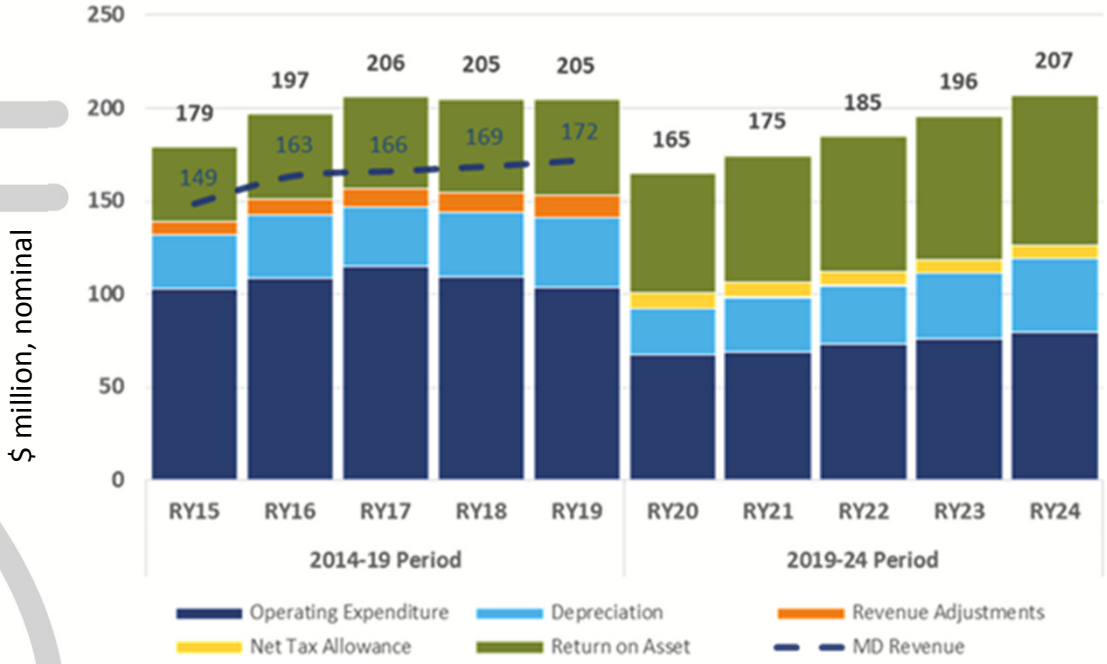
We are improving the ways we communicate with you; and

We are making it easier to connect renewables to our network.

Overview of our proposed revenues

We will be cheaper

Our plan seeks less total revenue than we currently charge, with a reduction equivalent to $97 per year less, per customer, on average and in real terms compared to 2014-19.

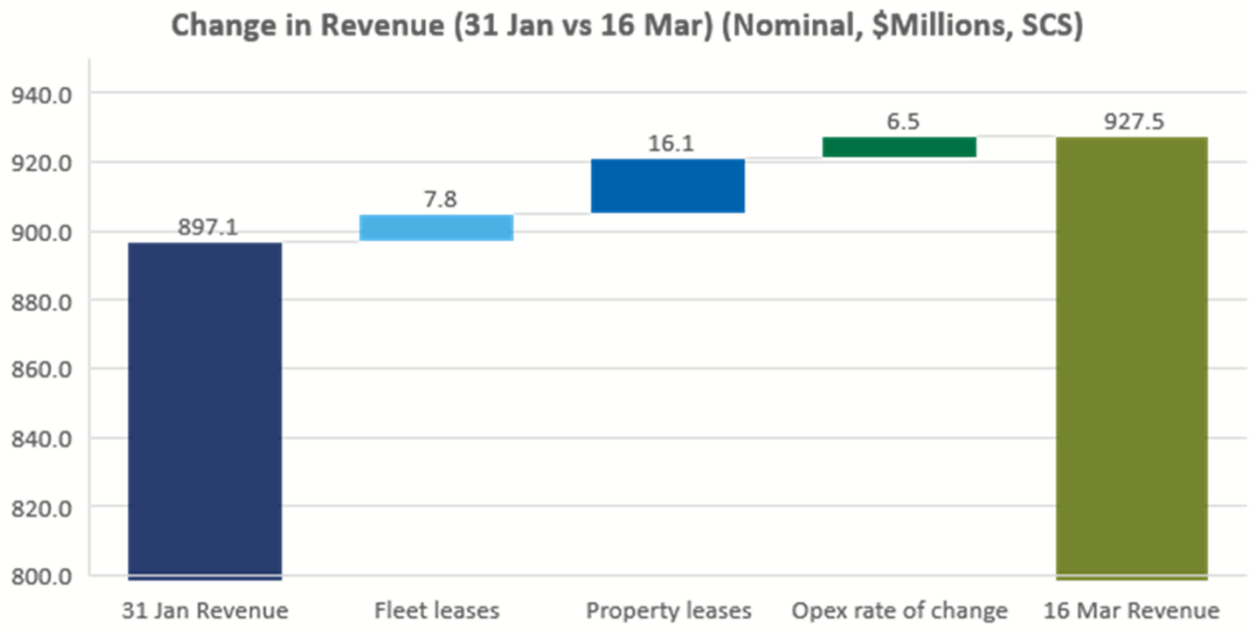


Key assumptions and forecasts we'll explain today:

1. Forecast demand
2. Forecast operating and maintenance expenditure (opex)
3. Forecast capital investment (capex)
4. Forecast financing costs (WACC)

Overview of changes in proposed revenues

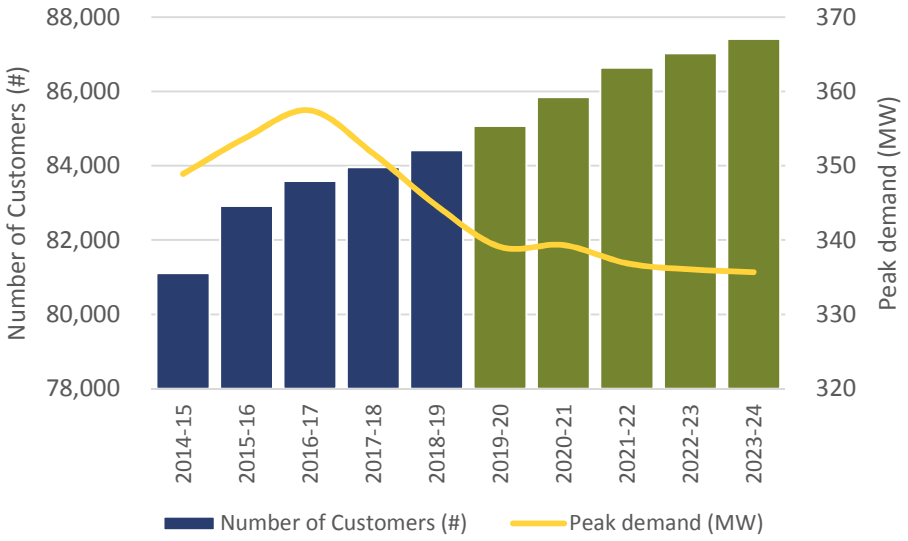
Our proposal still lowers average revenue per customer by $97pa, but has increased since the 31 Jan submission



Power Networks

Demand forecasting approach

- Australian Energy Market Operator (AEMO) independently forecast our:
  - Customer Connections
  - Energy Consumption
  - Regional max demand
  - Zone substation max demand
- This informs our capex and opex forecasts, and our price calculations

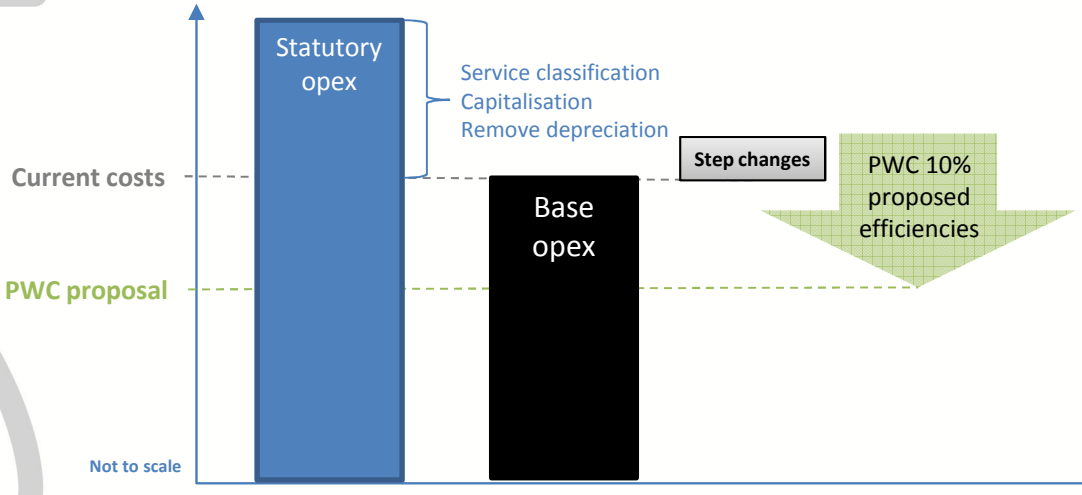


Opex approach

We are proposing to lower our annual operating costs by over $150 (12.8%) per customer

We use the base step and trend forecasting method, and align our opex cost base for NER regulation, including:

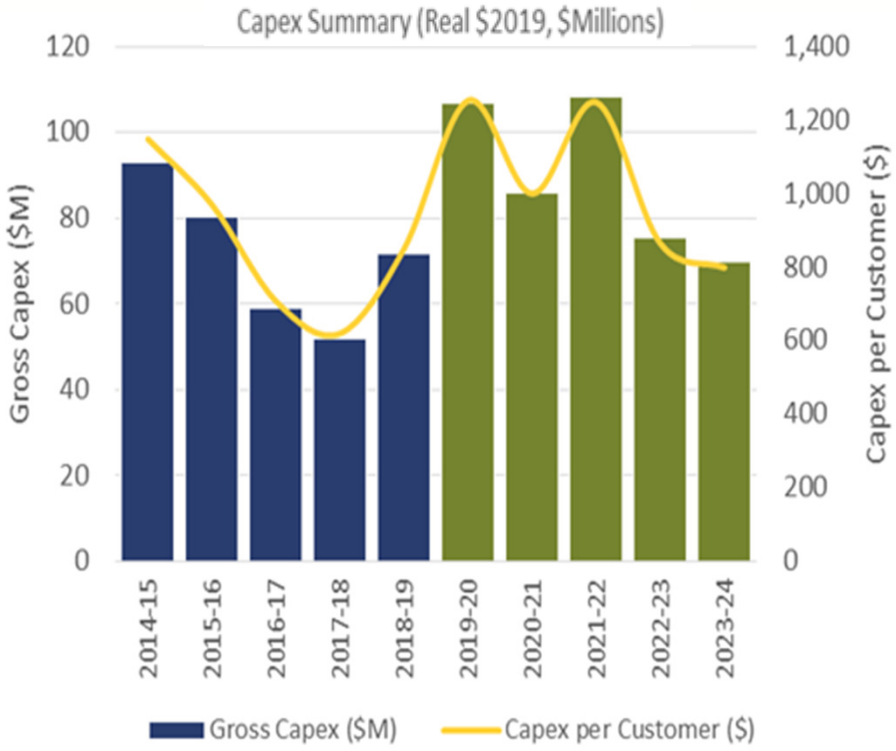
- Adopting AER service classification
- Adopting capitalisation aligned to peers, and stop expensing depreciation charges
- Adding step change for NT NER implementation (Connections process $474k, Type & meter compliance $24k, planning resources $536k), as well as the UC's new GSL payments $267k, and a new meter data management system $152k
- Deducting our 10% opex efficiency stretch



Capitalising our property and vehicle leases, a share of our overheads, and our IT costs improves customer outcomes. Historically we expensed these, which meant recovery in a single year rather than over the life of the assets from all customers who benefit from them over time.

Capex forecast

Our capital investment plan will secure our service outcomes and improve customer communications

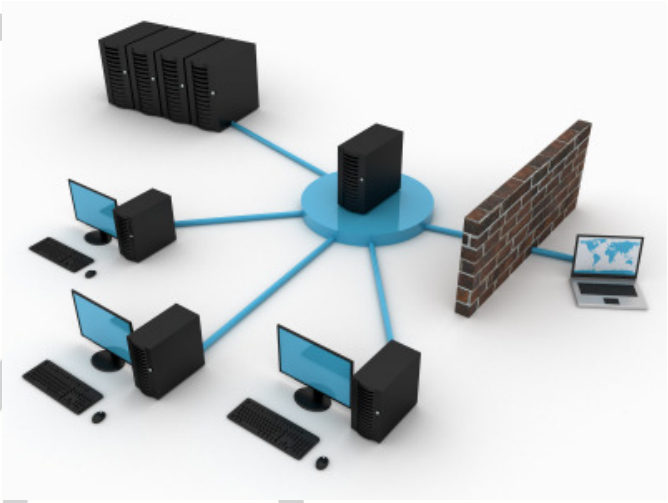


Average network investment will increase from $858.80 per customer in this period to $1,032.90 so that we can:

- Replace aged assets
- Augment capacity
- Connect 3,000 new customers
- Improve our IT for better billing, outage management and customer communications

We will also start investing in smart meters for all customers, which will be recovered in our metering prices.

2019-24 IT & systems



‘IT and Communications’ RAB Asset Class - $52.9 Million

Including projects such as:

- Energy Management System
- Meter Data Management System
- Outage Management System
- Customer Relationship Manager

‘Protection and SCADA’ RAB Asset Classes - $20.2 Million

Including projects such as:

- Protection Relay Replacement Program
- SCADA and Communications Obsolete Asset Replacement Program
- Upgrade DKTL Secondary Systems

Rate of Return

We need to be able to earn a fair rate of return of capital to continue investing in the network in a manner that best promotes customers' long-term interests

We have adopted the 2013 rate of return guideline to estimate our rate of return of **6.62%**, except for the return on debt transition. The next slide explains our reasons for our proposed departure to instead adopt the trailing average without transition.

Our proposed rate of return components are:

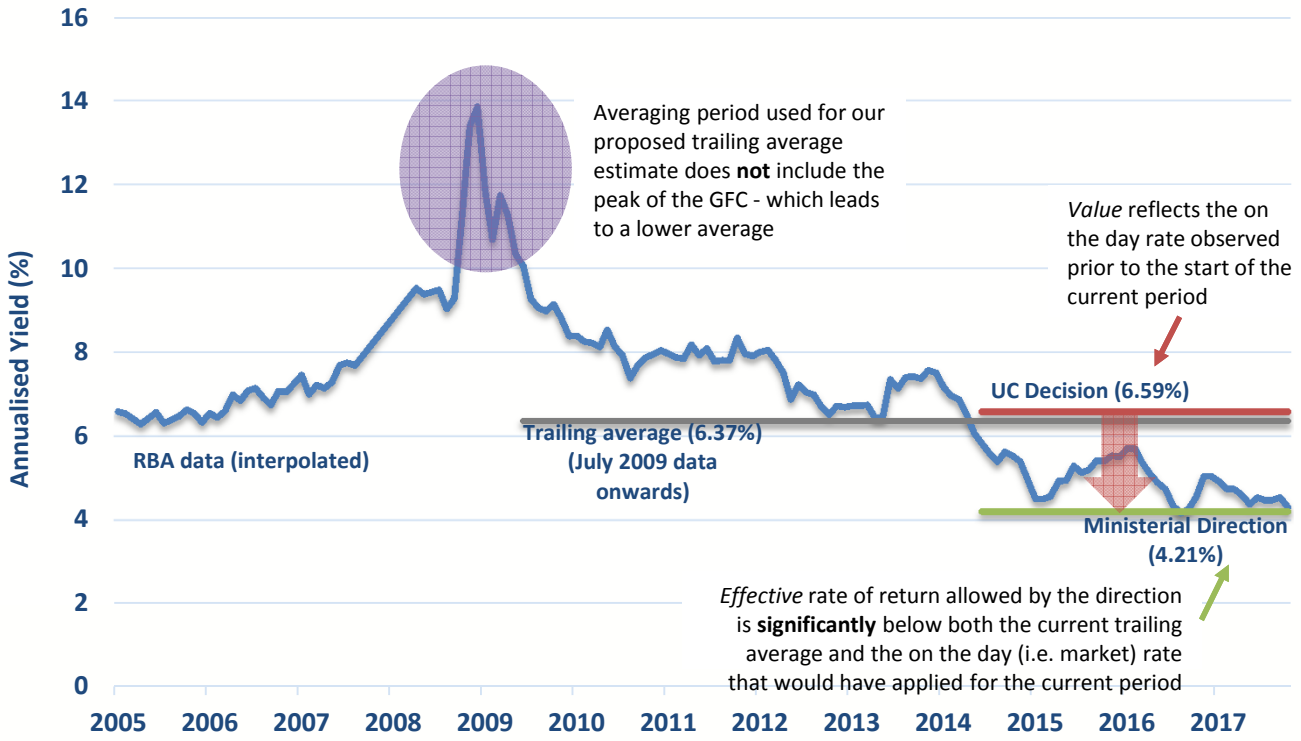
Used the AER's preferred method

Component	Value
Return on equity	7.00%
Return on debt	6.37%
Inflation	2.42%
Leverage	60.00%
Gamma	40.00%
Corporate tax rate	30.00%
Nominal vanilla WACC	6.62%

Estimated using placeholder averaging periods

Return on debt transition (cont.)

Comparison of observed 10 year BBB+ rate debt yields to UC decision and Ministerial Direction for the current period



Metering

Our proposal

Power and Water's Metering Strategy will be to install smart meters to:

- All new customers; and
- when their meter fails or reaches the end of its service life.

We will charge the same flat daily metering charge per customer based on whether they have a :

- Single phase – $0.1724 per day;
- Three phase - $0.1890 per day; or
- Remote read metering with dedicated CTs and VTs - $0.3687 per day.

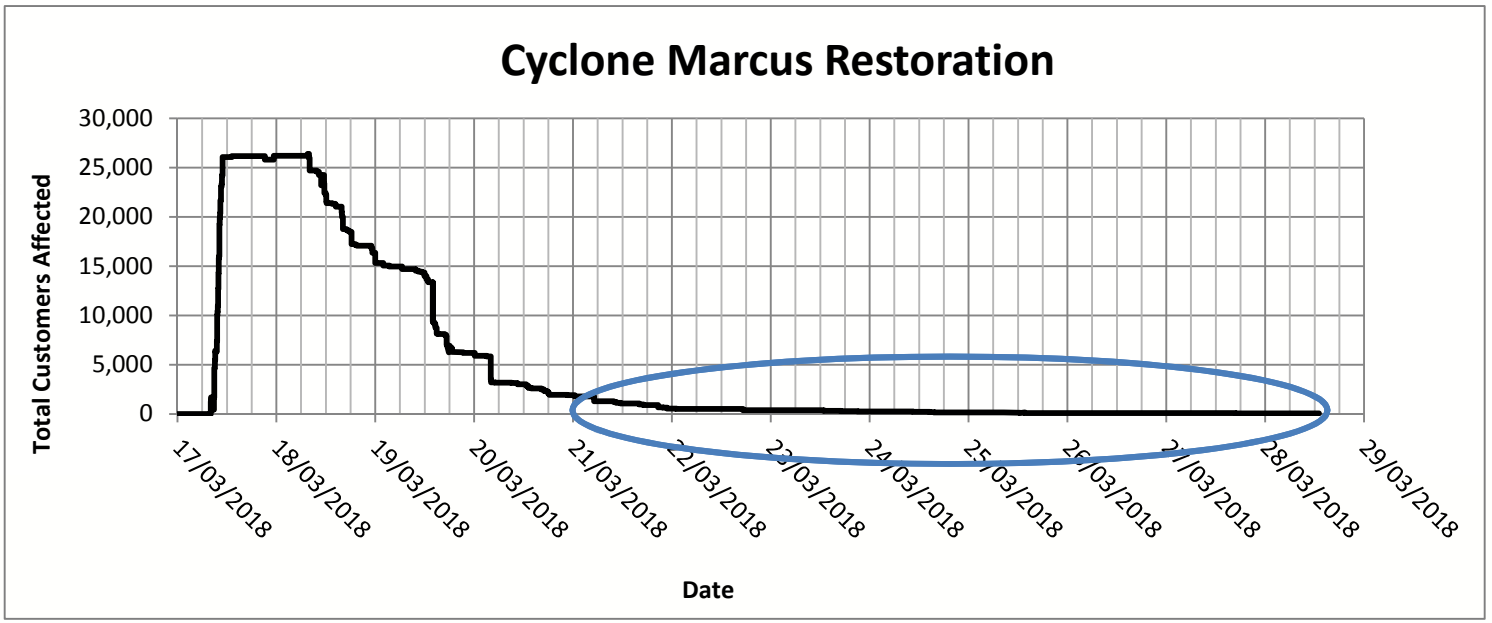
Benefits

- Remote read capabilities means access will not be required (as much);
- Better data to market participants and customers to help make informed choices;
- Fewer estimated reads when access to meters is limited;
- The cost is being separated out of the ACS charges – 1 line becomes 2
- Our flat meter charging structure (with no upfront fee) means:
  - customers who get to choose whether they have a smart meter installed are not forced to pay differential prices; and
  - Cost recovery will be over the useful life not through an upfront fee.

Metering

Smart meters also provide the added benefit of identifying outages when feeders are restored, less people asking:

"why was the rest of my street restored yesterday but not me?"

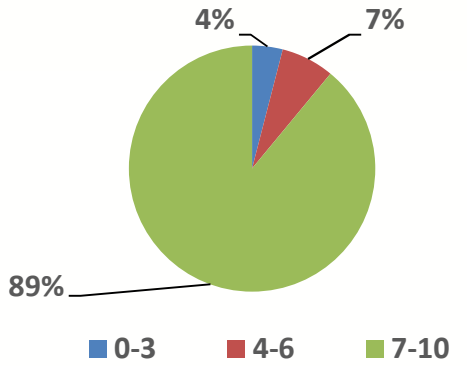


Metering

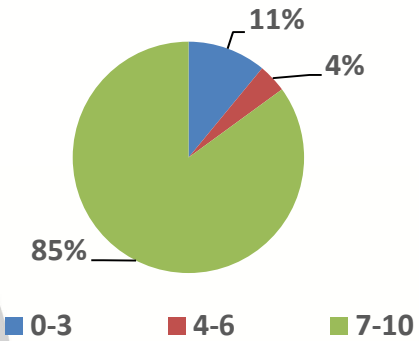
Deliberative Forums customer testing

1. Rolling out smart meters to all new customers?

   - 89% of participants were in favour of installing smart meters for all new customers;
   - 75% of participants scored this option 10 out of 10;
   - The average score received from customers was 8.9 out of 10



2. For existing customers replacing their old meters when they fail or are at the end of their normal service life?



   - 85% of participants supported installing smart meters when their current meters failed or reach the end of service life;
   - 71% of participants scored this option 10 out of 10;
   - The average score received from customers 8.5 out of 10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Thank you for your time
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