



PRELIMINARY DECISION

United Energy distribution determination 2016 to 2020

Overview

October 2015

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Invitation for submissions

Energy consumers and other interested parties are invited to make submissions on our preliminary decisions for the Victorian electricity distribution service providers by **Wednesday 6 January 2016**.

We will consider and respond to submissions in our final decisions in late April 2016.

We prefer that all submissions are in Microsoft Word or another text readable document format. Submissions on our preliminary decisions should be sent to: VICElectricity2016@aer.gov.au

Alternatively, submissions can be sent to:

Mr Chris Pattas
General Manager
Australian Energy Regulator
GPO Box 520
Melbourne Vic 3001

We prefer that all submissions be publicly available to facilitate an informed and transparent consultative process. Submissions will be treated as public documents unless otherwise requested. Parties wishing to submit confidential information should:

- (1) clearly identify the information that is the subject of the confidentiality claim
- (2) provide a non-confidential version of the submission in a form suitable for publication.

All non-confidential submissions will be placed on our website. For further information regarding our use and disclosure of information provided to us, see the ACCC/AER Information Policy (October 2008), which is available on our website.

We will hold a pre-determination conference on 17 November 2015 from 9.30am. If you are interested in attending this forum, have any queries about this preliminary decision or about lodging submissions, please send an email to: VICElectricity2016@aer.gov.au.

Note

This document forms part of the AER's preliminary decision on United Energy's revenue proposal 2016–20. It should be read with all other parts of the preliminary decision.

The preliminary decision includes the following documents:

Overview

Attachment 1 - Annual revenue requirement

Attachment 2 - Regulatory asset base

Attachment 3 - Rate of return

Attachment 4 - Value of imputation credits

Attachment 5 - Regulatory depreciation

Attachment 6 - Capital expenditure

Attachment 7 - Operating expenditure

Attachment 8 - Corporate income tax

Attachment 9 - Efficiency benefit sharing scheme

Attachment 10 - Capital expenditure sharing scheme

Attachment 11 - Service target performance incentive scheme

Attachment 12 - Demand management incentive scheme

Attachment 13 - Classification of services

Attachment 14 - Control mechanism

Attachment 15 - Pass through events

Attachment 16 - Alternative control services

Attachment 17 - Negotiated services framework and criteria

Attachment 18 - f-factor scheme

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Shortened forms

Shortened form	Extended form
AEMC	Australian Energy Market Commission
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
AMI	advanced metering infrastructure
augex	augmentation expenditure
capex	capital expenditure
CCP	Consumer Challenge Panel
CESS	capital expenditure sharing scheme
CPI	consumer price index
DRP	debt risk premium
DMIA	demand management innovation allowance
DMIS	demand management incentive scheme
distributor	distribution network service provider
DUoS	distribution use of system
EBSS	efficiency benefit sharing scheme
ERP	equity risk premium
Expenditure Assessment Guideline	Expenditure Forecast Assessment Guideline for electricity distribution
F&A	framework and approach
MRP	market risk premium
NEL	national electricity law
NEM	national electricity market
NEO	national electricity objective
NER	national electricity rules
NSP	network service provider
opex	operating expenditure
PPI	partial performance indicators
PTRM	post-tax revenue model
RAB	regulatory asset base
RBA	Reserve Bank of Australia
repex	replacement expenditure

Shortened form	Extended form
RFM	roll forward model
RIN	regulatory information notice
RPP	revenue and pricing principles
SAIDI	system average interruption duration index
SAIFI	system average interruption frequency index
SLCAPM	Sharpe-Lintner capital asset pricing model
STPIS	service target performance incentive scheme
WACC	weighted average cost of capital

1 Introduction

We, the Australian Energy Regulatory (AER), are responsible for the economic regulation of electricity distribution systems in Australia, except for Western Australia.

United Energy is one of five distribution network service providers (distributors) in Victoria and is responsible for providing electricity distribution services in the south-eastern suburbs of Melbourne. We regulate the revenues United Energy and other electricity distributors can recover from their customers.

United Energy submitted its regulatory proposal in April 2015 for the 2016–20 regulatory control period.

The National Electricity Law (NEL) and National Electricity Rules (NER) provide the regulatory framework governing electricity networks. In regulating United Energy, we are guided by the National Electricity Objective (NEO), as set out in the NEL. The NEO is to promote efficient investment in, and efficient operation and use of, electricity services for the long term interests of consumers of electricity with respect to—

price, quality, safety, reliability and security of supply of electricity; and
the reliability, safety and security of the national electricity system.¹

We apply incentive regulation in making our decision on a distributor's revenue—in accordance with the NER.² Incentive regulation encourages distributors to spend efficiently and to share the benefits of efficiency gains with consumers.

While we approve an overall revenue allowance for United Energy, this does not bind the business to a particular operating budget. We determine the overall revenue allowance that is based on a forecast of efficient capital and operating expenditures that would be required by United Energy in prudently providing distribution services and fulfilling its obligations. The regime provides incentives for United Energy to outperform those forecasts, while delivering safe, reliable and secure services to its customers.

If in assessing United Energy's regulatory proposal we do not accept that its forecast revenue complies with the requirements of the NER, we must substitute an alternative amount of revenue that we are satisfied does comply. In doing so, we must undertake this assessment and make this decision in a manner that will or is likely to contribute to the achievement of the NEO and, where there are two or more possible decisions that

¹ NEL, s. 7.

² NER, cl. 6.2.6(a) states that for standard control services, the control mechanism must be of the prospective CPI minus X form, or some incentive-based variant of the prospective CPI minus X form, in accordance with Part C (Building Block Determinations for standard control services). Further revenue and pricing principles (RPPs) state a regulated network service provider should be provided with effective incentives in order to promote economic efficiency with respect to direct control network services the operator provides.

will do so, make the decision that we are satisfied will contribute to the greatest degree (see section 5 of this overview).

We received submissions from various stakeholders on United Energy's proposal. We have published these submissions and United Energy's regulatory proposal on our website.

This overview, together with its attachments, constitutes our preliminary decision on United Energy's regulatory proposal.

1.1 Victorian electricity distribution

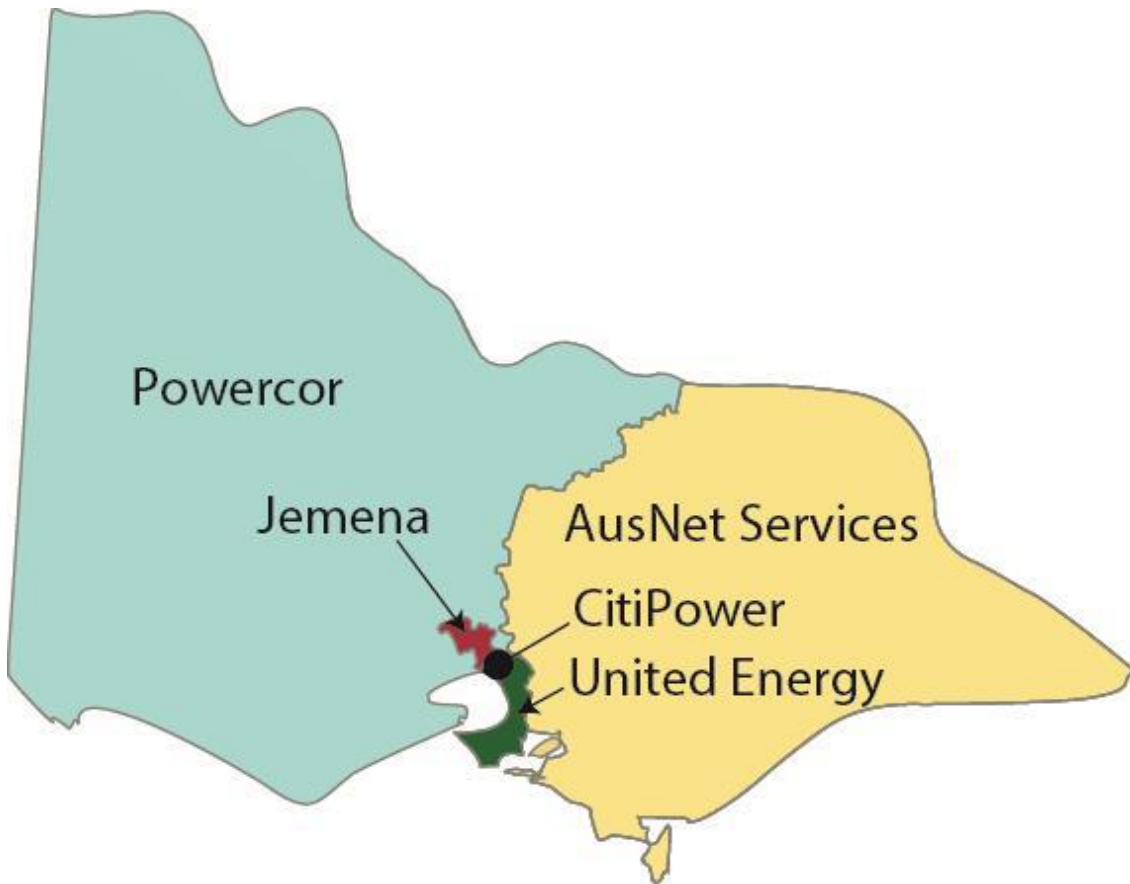
The electricity industry in Victoria is divided into four distinct parts, with a specific role for each stage of the supply chain—generation, transmission, distribution and retail.

Electricity distributors, which are the focus of this review, convert electricity from the transmission network into medium and low voltages and deliver that electricity to homes and businesses across Victoria. Each of Victoria's five distributors serves a different geographic area of Victoria:

- AusNet Services operates in the eastern part of Victoria
- CitiPower operates in the urban and CBD parts of Melbourne
- Jemena operates in a section north west of Melbourne
- Powercor operates the western part of Victoria
- United Energy operates in the south-eastern suburbs of Melbourne

The following map (figure 1) shows the geographic reach of each of these networks. Importantly, AusNet Services and Powercor predominantly serve rural and regional Victoria, whereas Jemena, United Energy and CitiPower predominantly serve urban customers.

Figure 1: Victorian electricity distribution networks



1.2 Structure of overview

This overview provides a summary of our preliminary decision and its constituent components. It is structured as follows:

- Section 2 provides a high-level summary of our preliminary decision and the key issues.
- Section 3 provides a break-down of our revenue decision into its key components. We determine revenue using the building block approach and this section details the approved amount for each building block.
- Section 4 sets out our preliminary decision on classification of services, control mechanisms and incentive schemes that will apply to United Energy. These are the decisions we make in addition to the building block revenue determination.
- Section 5 explains our views on the regulatory framework and the NEO.
- Section 6 outlines the consultation process we undertook in reaching our preliminary decision.
- Appendix A contains the full list of constituent components for our preliminary decision.

In our attachments we set out detailed analysis of the constituent components that make up United Energy's proposal and our decision on each of them.

2 Preliminary decision

Our preliminary decision is that United Energy can recover \$1832.3 million (\$ nominal) from consumers over the 2016–20 regulatory control period, which begins on 1 January 2016. This is a 20.9 per cent reduction to United Energy’s proposed revenue allowance of \$2315.0 million (\$ nominal). Our preliminary decision allows United Energy to recover 6.4 per cent less revenue from its customers in 2016 than it did in 2015.

We are satisfied that the total revenue set in our preliminary decision is sufficient for United Energy, acting prudently, to recover the efficient costs of providing safe and reliable electricity services. That is, our preliminary decision contributes to the achievement of the National Electricity Objective.

In this section, we provide a snapshot of our preliminary decision, including the impact we expect it will have on residential electricity bills (section 2.1), and highlight key issues considered as part of this review (section 2.2). Further, we set out the timeline, including for submissions to this preliminary decision, and briefly note the transitional rules that apply to this process (section 2.3).

This section aims to be accessible to a broad audience. See section 3 of this overview for a more technical discussion of the building block model components. We use the building block model to determine how much revenue a business requires to cover its efficient costs—as required under the National Electricity Rules.

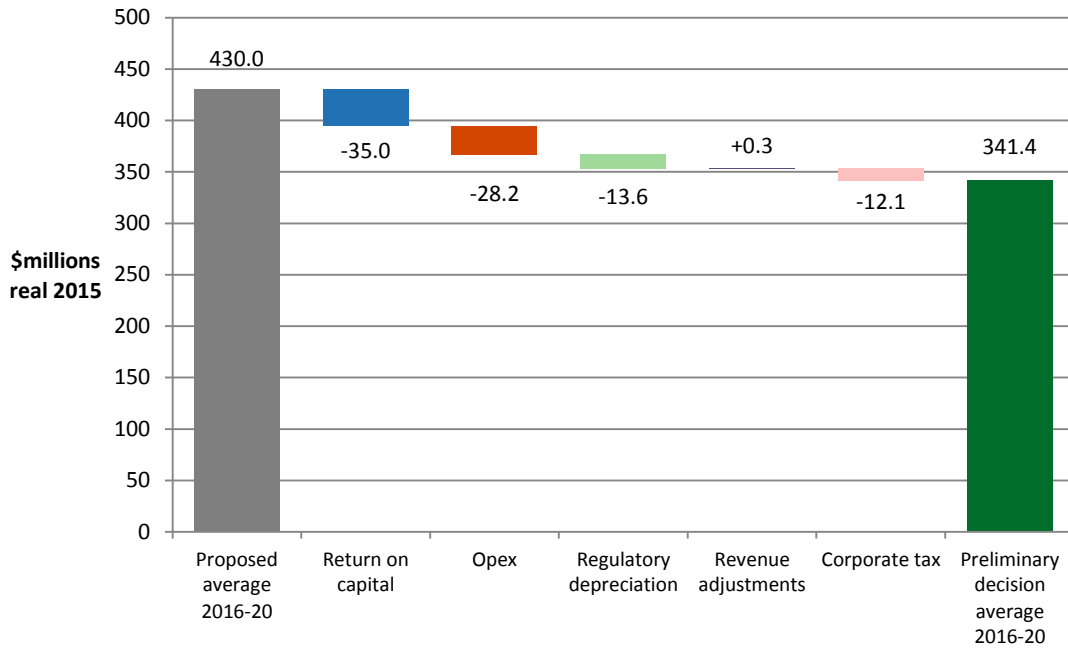
2.1 Snapshot of preliminary decision

Figures 2 and 3 compare our preliminary decision to United Energy’s proposal—broken down by the various building block components. They highlight that the allowed rate of return—which feeds into the return on capital—is the key difference between our preliminary decision and United Energy’s proposal.

Our decision also reduces United Energy’s proposed operating expenditure (opex) and capital expenditure (capex) by 16.9 per cent and 26.2 per cent, respectively.

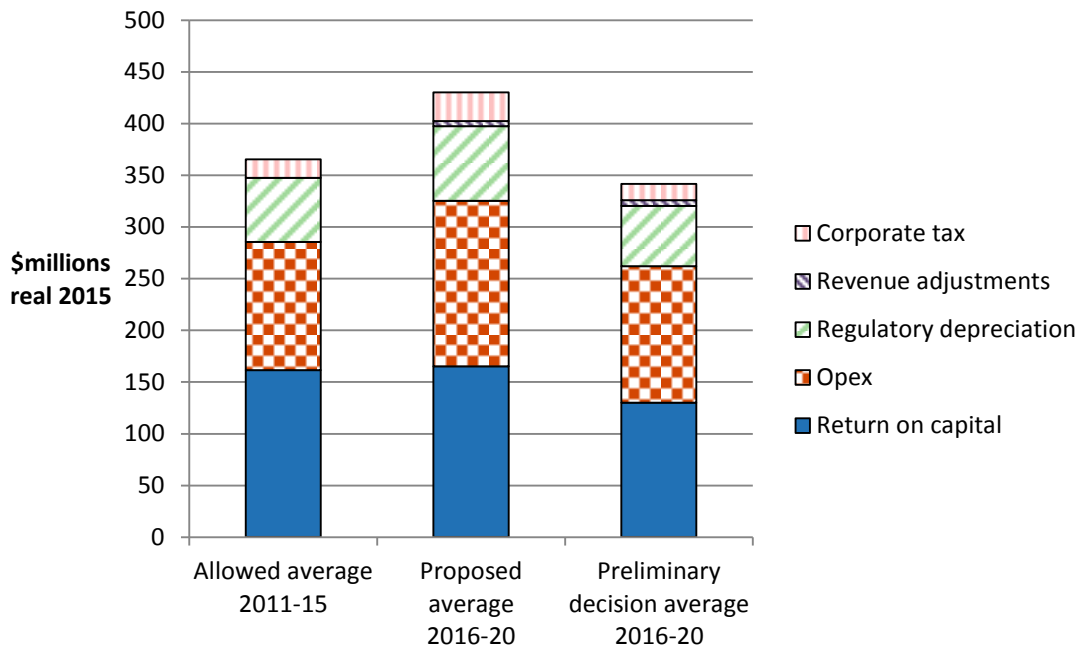
Our assessment has also found that United Energy has generally improved reliability outcomes over 2011–14 compared to the previous period.

Figure 2 AER's preliminary decision and United Energy's proposed annual building block costs (\$ million, 2015)



Source: AER analysis.

Figure 3 AER's preliminary decision on constituent components of total revenue (\$ million, 2015)



Source: AER analysis.

Expected impact of decision on residential electricity bills

Distribution charges represent approximately 33 per cent, on average, of the annual electricity bill for United Energy customers for standard control services.³ Other factors may affect a customer's electricity bill, such as their consumption, their specific tariff, the wholesale price of electricity, or changes in the retail margin.

In 2016 we expect a typical residential electricity bill to decrease by approximately 2.2 per cent. We expect a similar reduction in 2017 and then for bills to remain relatively stable for the remaining three years of the period.

Table 1 shows the estimated impact of our preliminary decision on the average residential and small business customers' annual electricity bills in United Energy's network area over the 2016–20 regulatory control period, compared with what was proposed by United Energy. Our bill impact estimates are indicative because distribution network charges form only part of the final bill paid by customers, and individual customers' actual bills will depend on their usage patterns and the structure of their tariffs.

Table 1 AER's estimated impact of its preliminary decision on the average residential and small business customers' electricity bills in United Energy's network for the 2016–20 period (\$ nominal)

	2015	2016	2017	2018	2019	2020
AER preliminary decision						
Residential annual bill	1676 ^a	1640	1605	1613	1622	1631
Annual change ^c		-37 (-2.2%)	-34 (-2.1%)	7 (0.5%)	9 (0.5%)	9 (0.6%)
Small business annual bill	3605 ^b	3526	3452	3468	3487	3506
Annual change ^c		-79 (-2.2%)	-73 (-2.1%)	16 (0.5%)	19 (0.5%)	20 (0.6%)
United Energy proposal						
Residential annual bill	1676 ^a	1730	1743	1753	1764	1776
Annual change ^c		53 (3.2%)	14 (0.8%)	10 (0.5%)	11 (0.6%)	12 (0.7%)
Small business annual bill	3605 ^b	3719	3749	3769	3794	3819
Annual change ^c		114 (3.2%)	30 (0.8%)	20 (0.5%)	24 (0.6%)	25 (0.7%)

Source: AER analysis, ESC, Victorian Energy Retailers Comparative Performance Report – Pricing 2013-14, October 2014.

(a) Based on average of standing offers at June 2015 on Switchon comparison tool (postcode 3199) using annual bill for typical consumption of 4690 kWh per year.

³ Standard control services represent the bulk of a distributor's services, provided to all customers connected to its network. Metering services in Victoria are not classified standard control, so the bill impacts shown here do not incorporate reductions in annual metering charges.

- (b) Based on average of standing offers at June 2015 on Switchon comparison tool (postcode 3199) using annual bill for typical consumption of 12020 kWh per year.
- (c) Annual change amounts and percentages are indicative. They are derived by varying 2015 bill amounts in proportion with total annual regulated revenue divided by forecast demand. Actual bill impacts will vary depending on electricity consumption, tariff class and other variables.

2.2 Key aspects of our preliminary decision

The total revenue approved in our preliminary decision reflects a number of factors:

- Based on our benchmarking results we find that United Energy has been operating relatively efficiently—such that we can use United Energy’s 2014 opex as a basis for assessing overall forecasts going forward. However, we still must assess the prudence and efficiency of proposed forecast cost increases going forward (section 2.2.1).
- Advanced metering infrastructure is classified as an ‘alternative control service’. The associated efficient costs are not included in United Energy’s allowed revenue of \$1832.3 million for standard control services—but rather are recovered under a separate annual metering charge (section 2.2.2).
- We have approved sufficient capital expenditure to allow United Energy to maintain the quality, reliability and security of electricity supply, among other things (section 2.2.2).
- There have been changes to United Energy’s operating environment that impact its underlying cost drivers, which is reflected in the lower revenue allowance for 2016–20 compared to 2011–15 (section 2.2.3).

2.2.1 Past operating efficiency

In recent years, we have expanded our regulatory toolkit to include greater use of benchmarking—particularly for operating expenditure (opex). Benchmarking is a way of determining how well a network business is performing against other distributors in the National Electricity Market and over time, and it provides valuable information on what is considered to be ‘best practice’.

Our opex benchmarking results show United Energy is currently one of the most efficient service providers in the National Electricity Market. Further, we find that United Energy has generally improved reliability outcomes over 2011–14 compared to its performance in the previous period.

We consider United Energy has been responsive to the incentives of the regulatory regime. The network businesses are incentivised to spend efficiently and to share the benefits of efficiency gains with consumers. Businesses that are able to improve their efficiency are rewarded with higher profits for a period of time. Productivity savings are passed on to consumers through the Efficiency Benefit Sharing Scheme (EBSS), and are reflected in United Energy’s base opex when we forecast opex for future regulatory periods.

We therefore have used United Energy's revealed (past actual) costs as the starting point for forecasting efficient opex.

We have then accounted for any changes in efficient costs in the base year and each year of the forecast regulatory control period. Overall, we consider that United Energy has proposed more revenue than is actually required to operate its network prudently and efficiently. As discussed in section 2.2.4, we do not consider there are significant 'step changes' required to United Energy's opex. We have made some adjustments for changes in output and real prices over the 2016–20 period. Further, United Energy allocated opex for Advanced Metering Infrastructure (AMI) to standard control services. We classified these costs under 'alternative control services', which means ongoing AMI costs will be recovered by United Energy through a separate annual metering charge.

2.2.2 Advanced metering infrastructure

The advanced metering infrastructure rollout that commenced in 2009 under an Order in Council is now largely completed. So, we expect the capex component for metering to fall in 2016–20 as the Victorian distributors enter a 'business-as-usual' phase, although opex is still required to maintain the metering infrastructure.

We have approved a revenue allowance for AMI of \$281.9 million (\$ nominal) for 2016–20, which includes \$13.5 million (\$2015) of capex and \$109.1 million of opex. The completion of the rollout means United Energy needs less revenue to provide metering services. Revenue for metering will decrease by around 40 per cent from 2015 to 2016. This will lead to a similar reduction in annual metering charges in 2016.

2.2.3 Approved capital expenditure

We approve \$814.8 million of capital expenditure (capex), which is a reduction of 26.2 per cent to what United Energy proposed. This provides sufficient funds to allow United Energy to augment the network where necessary, replace assets that have reached the end of their economic life, and invest in information and communication technology to manage the transition to a smarter network, among other things.

Our role is to assess United Energy's proposed total capex for 2016–20 against the (capex) criteria set out in the National Electricity Rules (NER). That is, we must form a view on whether United Energy's proposed total capex reasonably reflects the efficient costs a prudent operator would require to achieve the capex objectives given a realistic expectation of the demand forecast and cost inputs required to achieve the capex objectives. The capex objectives are to: meet expected demand; comply with all applicable regulatory obligations; and (broadly) maintain the quality, reliability, safety and security of supply and the distribution system.

We applied our various assessment techniques in considering United Energy's proposal. For example, we considered past trends in actual and forecast capex, undertook 'category analysis' to compare expenditures across businesses and over time, and used predictive modelling. This analysis, together with advice from our expert consultants and input from stakeholders, has informed our view on whether United

Energy's proposal reasonably reflects the capex criteria in the NER at the total capex level.

Consumers should pay no more than necessary for the safe and reliable delivery of electricity network services. United Energy proposed capex of \$1104 million. Although we made some adjustments, we are reasonably satisfied that the majority of capex proposed by United Energy for 2016–20 is prudent and efficient and, therefore, is in the long term interests of consumers.

2.2.4 Less revenue required in current operating environment

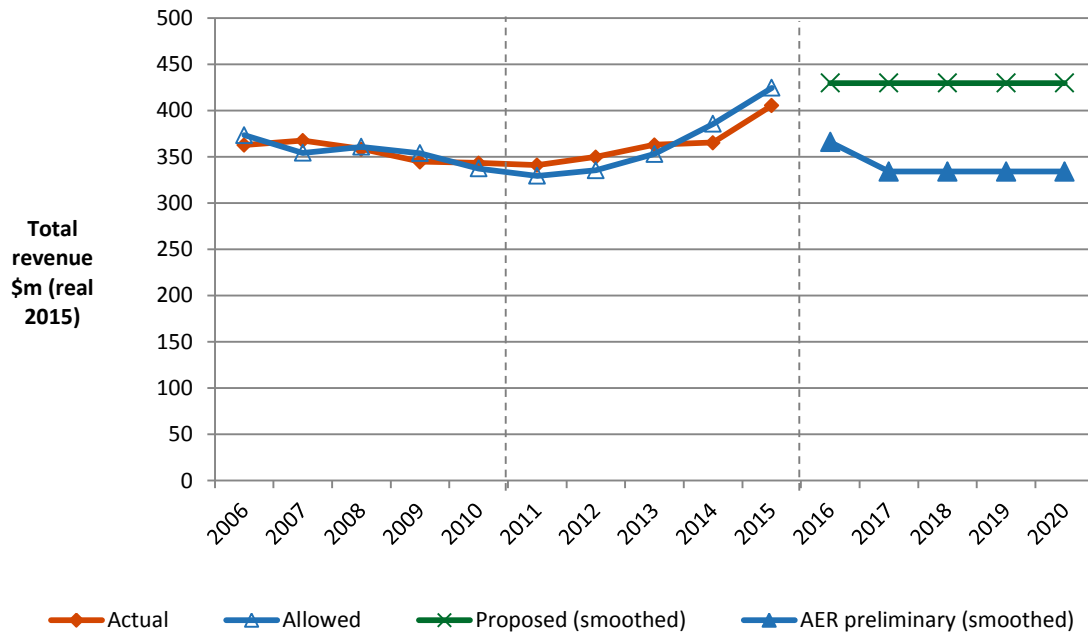
United Energy's annual revenue increased each year from 2011 to 2015. This preliminary decision results in a gradual fall in revenue over 2016–20 (figure 4), which reflects a number of factors that impact on United Energy's underlying costs, including:

- an improved investment environment compared to the previous regulatory period, which translates to lower financing costs necessary to attract efficient investment
- demand for electricity which is expected to be relatively flat going forward, which means less pressure on United Energy to expand the capacity of its network compared to previous regulatory periods
- changes to the Value of Customer Reliability, which reduces the need to build new infrastructure to meet customers' expectations of reliable electricity
- the asset replacement cycle, whereby increased replacement capex is required to manage deterioration in asset condition because a greater proportion of its assets are reaching the end of their economic life
- fewer new regulatory obligations imposed on United Energy, which means there has not been the same 'step' increase in the business' costs as there was in the previous regulatory period.

Most of the above factors reduce United Energy's underlying costs compared to the previous regulatory period. Overall, we consider that United Energy, operating prudently and efficiently, can provide safe and reliable distribution services over 2016–20 with less revenue when compared to 2011–15.

The revenue allowance approved in this preliminary decision takes account of existing obligations imposed on the business by the Victorian Government as recommended by the 2009 Victorian Bushfires Royal Commission. For example, we have accepted additional capex of \$34.2 million that is driven by a bushfire safety mitigation program. But the allowance does not encompass any new regulatory obligations that may be imposed during the 2016–20 regulatory control period. This is because the scope of the new obligations and their likely cost impact on United Energy are not currently known.

Figure 4 United Energy’s past total revenue, proposed total revenue and AER total revenue allowance (\$ million, 2015)



Source: AER analysis.

Network funding costs are lower

The rate of return provides a network business with revenue to service the interest on its loans and to give a return on equity to shareholders. The allowed rate of return is a key determinant of allowed revenue. The differences in the rate of return we determine and those proposed by the businesses may appear small—a percentage point or two. However, even a small difference can have a big impact on revenues. This is because the businesses have raised large amounts of funds from lenders and other investors in the past, which is to be expected given the capital intensive nature of the sector. These fund raisings have to continue to be financed, as well as financing of any new capital spending.

The rate of return must be commensurate with the efficient financing costs of a benchmark efficient entity with a similar degree of risk to the distributor in respect of the provision of distribution services. The NER refers to this requirement as the ‘allowed rate of return objective’.

Prevailing market conditions for debt and equity heavily influence the rate of return. Financial conditions have changed since our last decision for United Energy in October 2010, which covered the 2011–15 regulatory control period. This is reflected in a lower rate of return in this preliminary decision. Interest rates are lower and financial market conditions are more stable. This means that the cost of debt and the returns required to attract equity are lower. These factors should be reflected in the rate of return.

Our preliminary decision is for a rate of return of 6.12 per cent (for 2016)⁴—compared to 9.49 per cent we set in the 2011–15 regulatory control period.

We set out our approach to determining the rate of return in the Rate of Return Guideline (Guideline) we published in December 2013. We undertook significant consultation in developing this Guideline. Although it is not binding, the distribution businesses must provide reasons to justify any departure from the Guideline.

United Energy proposed a rate of return of 7.38 per cent for 2016–20. It proposed that we depart from the Rate of Return Guideline. We have considered United Energy's arguments and supporting information, but do not find them sufficiently compelling for us to depart from the Guideline. Advice from the Consumer Challenge Panel, and submissions by the Consumer Utilities Advocacy Centre, Victorian Energy Consumer and User Alliance, Victorian Government, Energy Retailers Association of Australia and Origin Energy broadly considered that the Victorian distributors' proposals should not have departed from the Guideline, and that their proposed rates of return are excessive given the current investment environment.⁵ For example, VECUA stated:

The distributors' WACC proposals are excessive and are based on major unjustified departures from the AER's Rate of Return Guideline—a guideline that was developed through extensive consultation over a 12 month period with a broad range of stakeholders, including the Victorian distributors.

By contrast, the Victorian distributors' proposed departures have not been submitted to any rigorous analysis or stakeholder consultation. Most of the information used by the Victorian distributors to support their departures was already considered by the AER during the development of the rate of return guideline.⁶

This preliminary decision on rate of return is consistent with our mid-2015 final decisions for the New South Wales and ACT electricity distribution, and New South Wales gas distribution, network businesses. These network businesses have appealed many aspects of our rate of return decisions to the Australian Competition Tribunal. The Victorian electricity distribution businesses are participating in the appeals process—arguing that the rate of return we set is too low. The Australian Competition Tribunal's process had not been finalised at the time of this preliminary decision.

⁴ For the remaining years of the regulatory control period, we will update the rate of return annually.

⁵ Consumer Challenge Panel Sub-Panel 3, *Response to proposals from Victorian electricity distribution network service providers*, August 2015; Consumer Utilities Advocacy Centre, *Re: Victorian electricity distribution pricing review (EDPR), 2016 to 2020*, 13 July 2015; Victorian Energy Consumer and User Alliance, *Submission to the AER, Victorian Distribution Networks' 2016–20 Revenue Proposals*, July 2015; Victorian Department of Economic Development, Jobs, Transport & Resources, *Submission to Victorian electricity distribution pricing review 2016 to 2020*, July 2015; Energy Retailers Association of Australia, *Re: Issues paper – Victorian electricity distribution pricing review 2016–2020*, 13 July 2015; Origin Energy, *Re: Submission to Victorian Electricity Distributors Regulatory Proposals*, 13 July 2015.

⁶ Victorian Energy Consumer and User Alliance, *Submission to the AER, Victorian Distribution Networks' 2016–20 Revenue Proposals*, July 2015, p. 3.

Maximum demand is not expected to grow

Maximum demand for electricity is a key driver of investment in network capacity and expansion. Because of this, forecasts of maximum demand are fundamental to United Energy's forecast expenditure, and to our assessment of that forecast expenditure.

United Energy forecasts growth in maximum demand over 2016–20. United Energy's demand forecasts for the 2016–20 period are higher than the actual demand observed for its network over the last two regulatory periods. United Energy forecasts a return to demand growth on the network similar to that experienced prior to 2009, which contrasts to the recent flattening of demand over 2011–15. United Energy stated that demand will increase due to:

- increasing penetration of air-conditioners by commercial businesses and residential households
- improvements in economic growth and electricity price stability
- population and building stock growth.⁷

As we set out in Attachment 6, there have been developments in the Australian and Victorian electricity markets over recent years that have influenced electricity consumption and maximum demand patterns. For example, household installations of photo-voltaic (PV) cells and the increased focus on energy efficiency have changed historic demand growth patterns. Together with broader macroeconomic factors, we consider that this has led to a softening of both actual maximum demand growth and forecasts for future growth. Similar observations are made by stakeholders in submissions to this process.

In this context, we consider United Energy's forecasts of maximum demand likely do not reflect a realistic expectation of demand over the 2016–20 period. United Energy's forecast appears to assume that the longer-term drivers of maximum demand will continue into the future, regardless of the observed change in the pattern of consumption and maximum demand in recent years.

In coming to this view, we considered United Energy's forecasting methodology and compared United Energy's proposal to the Australian Energy Market Operator's (AEMO's) independent forecasts of maximum demand. AEMO publishes forecasts and planning information in its role as the National Energy Market Operator and planner. We use AEMO's maximum demand forecasts as an independent reference in regulatory determination processes.

We consider AEMO's independent forecasts better explain the actual demand pattern seen across United Energy's network. While not without its limitations, we consider that AEMO's forecasts better reflect recent changes in the electricity market.

⁷ United Energy, *Regulatory Proposal 2016–20*, April 2015, pp. 37–38.

This means that United Energy is likely to be under less pressure to expand its network than in previous years to meet the needs of additional customers or any increased demand from existing customers. While we accept there will remain areas of its network that require expansion to meet localised growth in maximum demand, we find that United Energy should not require significant increases in overall capex to expand its network. Therefore, we consider there is the potential to prudently delay some of United Energy's proposed network augmentation projects. We have taken this into account as part of our assessment of United Energy's expenditure forecasts.

We understand that United Energy—and the other Victorian electricity distribution businesses—are in the process of updating their demand forecasts as part of their annual network planning processes. We also note that in September 2015, AEMO published updated connection point demand forecasts for Victoria. These forecasts took into account actual 2015 summer demand data and some revisions to its forecasting methodology. We have not been able to take AEMO's updated connection point forecasts into account for this preliminary decision. We will revisit United Energy's updated demand forecast in its revised regulatory proposal.

Customers are not willing to pay more for increased reliability

In planning network augmentation, the Victorian businesses apply a measure of customers' willingness to pay, in dollar terms, for the reliable supply of electricity—known as the Value of Customer Reliability (VCR). This allows the businesses to compare the economic cost to customers from network outages against the cost of augmenting the network. This is a commonly used assessment and reflects good industry practice.

AEMO recently completed a National Electricity Market-wide review of the VCR. The study was requested by the COAG Energy Council. The purpose of the review was to improve the understanding of the level of reliability that customers expect by producing a range of VCR values for residential and business customers across the National Electricity Market. This study found that the VCR in Victoria has declined since the previous study conducted in 2014,⁸ which reduces the need to build new infrastructure to meet customers' expectations of reliable electricity.

United Energy did not apply AEMO's Victorian VCR in its expenditure forecasts for 2016–20. We find the VCR applied by United Energy to calculate its network augmentation requirements is unreasonably high. AEMO's Victorian VCR estimate better reflects the willingness-to-pay of United Energy's customers for reliability supply of electricity.

Based on AEMO's VCR, United Energy can prudently delay some of its proposed augmentation programs and projects.

⁸ AEMO, *Value of Customer Reliability Review – Final Report*, September 2014, p. 1.

More network assets are reaching the end of their useful life

Network assets do not last forever. As assets age and deteriorate the cost of maintaining the asset in acceptable condition and the probability of failure increases. At some point it becomes economically sensible to replace existing assets.

Major expansions in the distribution networks—due to factors such as customer or demand growth—can lead to large variations in investments for a period of time. This may then fall away, and be followed by relatively moderate network investment for a number of years. This brings about a lumpy pattern of investment over the life of the network.

Replacement may occur when an asset fails, when the maintenance costs become unacceptably high, or a condition assessment may find it is likely to fail soon and replacement is the most economic option. It may also occur because jurisdictional safety regulations dictate that the asset is no longer considered to be safely operated on the network, or because the risk of using the asset exceeds the benefit of continuing to operate it on the network.

In general, the majority of network assets will remain in efficient use for far longer than a single five year regulatory period. Many of these assets have economic lives of 50 years or more. As a consequence, distributors will only need to replace a portion of their network assets in each regulatory control period.

United Energy's replacement expenditure (or repex) has varied over time and is forecast to increase above historical levels in 2016–20. United Energy stated that its network reliability performance has shown a deteriorating trend over the most recent three-year period (2012–14) due to the growing percentage of its assets that are '85 per cent life expired'. As assets enter this age group, the risk and incidence of equipment failure and network reliability has increased significantly.⁹

Our predictive repex model can be used to forecast a reasonable amount of repex United Energy would require if it maintains its current risk profile for condition-based replacement into the next regulatory period. The model takes into account the age profile of United Energy's assets and when it is likely to replace the assets.

Having considered its proposal, we accept that United Energy requires increased repex over 2016–20—compared to 2011–15—to manage deterioration in asset condition because a greater proportion of its assets are reaching the end of their economic life. Although we made some adjustments, we have approved most of United Energy's proposed repex based on our predictive modelling, the advice of our expert consultants, trend analysis, asset health indicators, and consideration of the Consumer Challenge Panel's advice and stakeholder submissions..

⁹ United Energy, *Capital expenditure overview – Replacement capital expenditure*, 30 April 2015, p. 8.

Fewer new regulatory obligations

In its proposal, United Energy has raised a number of cost drivers that it considers will require increased opex and capex over the forecast period. For example, United Energy proposed increased funding for step changes such as obligations under the 'Power of Choice' program, changes in technical safety rules, and customer response programs.¹⁰ Capex can also be triggered by the need to upgrade the network to comply with quality, safety, reliability and security requirements.

For opex, we refer to these cost drivers as possible 'step changes'. Step changes may be for cost drivers such as new, changed or removed regulatory obligations, or efficient capex/opex trade-offs.¹¹ We typically compensate a network business for step changes only if efficient base year opex, and the rate of change in opex of an efficient service provider, do not already compensate the business for the proposed costs.¹²

We find there are very few changes in the external environment, such as new regulatory obligations, that require a step change in opex for United Energy, especially compared to the previous regulatory period. United Energy proposed \$112.4 million for step changes in opex—of which we accepted \$2.4 million. The base level of opex for the most part is sufficient for United Energy to operate a safe and reliable network for the 2016–20 period. Moreover, we find some proposed step changes are driven by United Energy's internal management decisions and are 'business-as-usual'.

That said, we have accepted additional capex of \$34.2 million that is driven by a bushfire safety mitigation program for the 2016–20 period. United Energy has demonstrated it has a mandatory obligation to undertake this new work, which follows from the 2009 Victorian Bushfires Royal Commission.

United Energy may also face some anticipated, as opposed to known, changes to legislation. Where there is a clear prospect of a change in regulation, such as for some new bushfire safety related regulatory obligations, additional costs may arise. United Energy may provide information in its revised proposal on anticipated regulatory obligations so that we may consider them as contingent projects in our final decision.

2.3 Process timeline and transitional rules

We began the process of reviewing United Energy's regulatory proposal in May 2015. United Energy's revised proposal and submissions on our preliminary decisions are due by 6 January 2016. We will then give third party stakeholders an opportunity to comment on the revised proposals by 4 February 2016. By the same date, we will allow further submissions from all stakeholders, including the distribution businesses,

¹⁰ United Energy, *Regulatory Proposal*, 30 April 2015, p. 93.

¹¹ We expect total opex to be relatively stable over time. For example, as some non-recurrent costs increase, others will fall away. Efficient discretionary changes in inputs—that are not required to increase output—should have a net negative impact on expenditure over the long term, as the business seeks to improve its efficiency.

¹² AER, *Expenditure Forecast Assessment Guideline*, November 2013, p. 24.

on the submissions made by third party stakeholders to the preliminary decisions. Our final decision is due to be released in late April 2016. Table 2 lists the key dates.

Table 2 Key dates

Task	Date
Businesses submitted regulatory proposals to AER	30 April 2015
AER released Issues paper	9 June 2015
AER held public forum	22 June 2015
Submissions on regulatory proposals received	13 July 2015
AER preliminary decisions	29 October 2015
AER to hold conference to explain preliminary decisions	17 November 2015
Submissions on preliminary decisions due	6 January 2016
Businesses to submit revised regulatory proposals to AER	6 January 2016
Further submissions due, including on revised proposals*	4 February 2016
AER to release final decisions	End of April 2016

Transitional rules for the Victorian electricity businesses

In November 2012, the AEMC introduced major changes to the economic regulation of electricity distributors under chapter 6 of the NER.¹³ To allow consumers to receive the benefit of the new rules the AEMC made transitional rules under chapter 11 of the NER. The transitional provisions in chapter 11 of the NER effectively provide that a modified version of chapter 6 (version 58) governs the making of the Victorian distribution determinations.

Our preliminary decision for the 2016–20 regulatory control period will be the basis used for approving network prices in 2016. As required by the 'transitional arrangements' in the NER, we will then revoke the preliminary decision and substitute it with a new distribution determination which takes effect at the date it is made and applies in respect of the 2016–20 regulatory control period (referred to as our final decision). The new distribution determination will provide for a revenue adjustment, as specified in the NER, that incorporates adjustments of United Energy's revenues or prices over the regulatory control period to account for differences between the amount of the revenues and prices that we approved for the 2016 regulatory year in the preliminary decision and in the final decision.

¹³ AEMC, *Final Rule Determination, National Electricity Amendment (Economic Regulation of Network Service Providers) Rule 2012*, 29 November 2012.

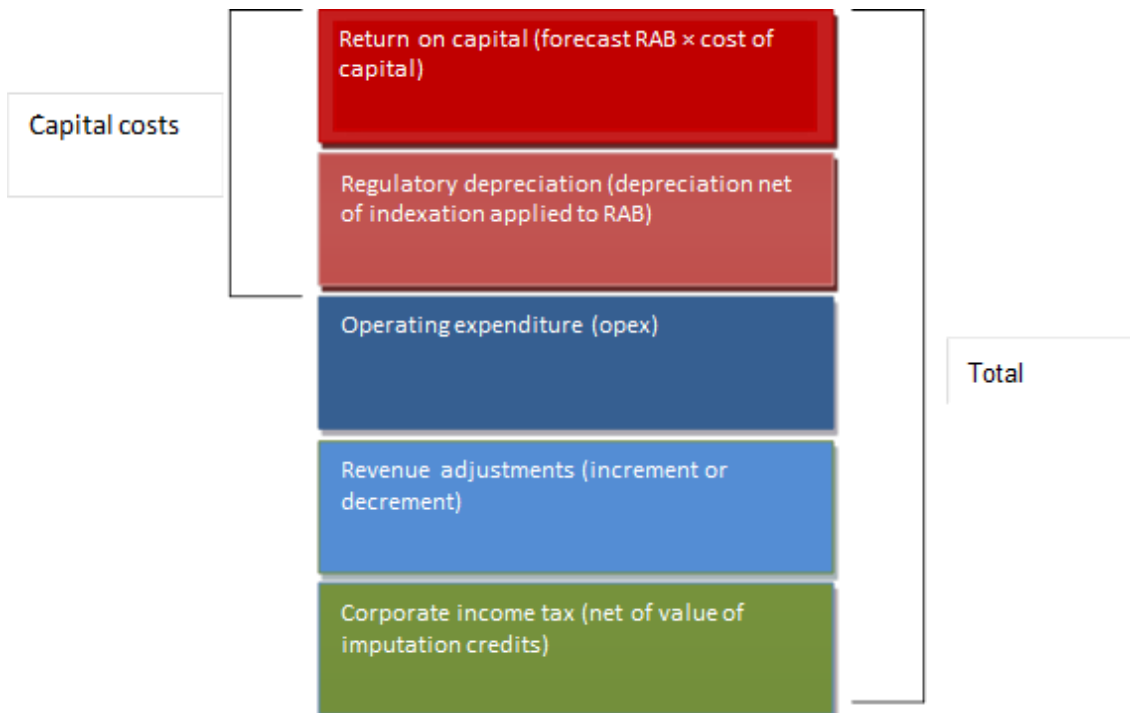
3 Key elements of decision on United Energy’s revenue

We use the building block approach to determine United Energy’s annual revenue requirement. The building block costs, illustrated in figure 5, include:

- a return on the regulatory asset base (RAB) (return on capital)
- depreciation of the RAB (return of capital)
- forecast opex
- revenue increments or decrements resulting from incentive schemes such as the efficiency benefit sharing scheme (EBSS)
- the estimated cost of corporate income tax.

Our assessment of capex directly affects the size of the RAB and therefore, the revenue generated from the return on capital and return of capital building blocks.

Figure 5 The building block approach for determining total revenue



In setting our alternative overall revenue allowance for United Energy of \$1832.3 million (\$ nominal) for the 2016–20 regulatory control period we:

- apply relevant tests under the NER, the assessment methods and tools developed as part of our Better Regulation Guidelines.¹⁴ We also consider information provided by United Energy, the Consumer Challenge Panel (CCP), consultants and stakeholder submissions
- consider our total revenue allowance against section 16 of the NEL, including the constituent components and the interrelationships.

Table 3 shows our preliminary decision on United Energy's revenues and the building block components.

Table 3 AER's preliminary decision on United Energy's revenues (\$ million, nominal)

	2016	2017	2018	2019	2020	Total
Return on capital	125.5	133.1	140.6	147.6	154.1	701.0
Regulatory depreciation ^a	54.4	60.6	68.9	68.7	62.8	315.4
Operating expenditure	131.5	136.4	142.0	147.8	153.4	711.2
Revenue adjustments ^b	-9.8	19.4	7.9	11.6	-0.2	28.9
Corporate tax allowance	15.6	16.2	17.3	19.1	16.3	84.6
Annual revenue requirement (unsmoothed)	317.3	365.7	376.8	394.9	386.5	1841.2
X factor ^c	8.72%	8.72%	0.00%	0.00%	0.00%	n/a
Annual expected revenue (smoothed)	375.1	350.9	359.7	368.7	377.9	1832.3

Source: AER analysis.

- (a) Regulatory depreciation is straight-line depreciation net of the inflation indexation on the opening RAB.
- (b) Revenue adjustments include efficiency benefit sharing scheme carry-overs, forecast DMIA, shared assets adjustment and 2010 S-factor scheme close out.
- (c) The X factors from 2017 to 2020 will be revised to reflect the annual return on debt update.

3.1 Regulatory asset base

The RAB is the value of United Energy's assets used to provide distribution network services. It is the value on which United Energy earns a return on capital, and a depreciation allowance (return of capital). We assess United Energy's proposed opening value for the RAB for each year of the 2016–20 regulatory control period.¹⁵

Our preliminary decision is to set United Energy's opening RAB at \$2051.9 million (\$ nominal) as at 1 January 2016. This is because we have amended United Energy's

¹⁴ www.aer.gov.au/Better-regulation.

¹⁵ NER, cl. 6.5.1 and S6.2.

proposal to correct a number of input errors to the model used by United Energy to roll forward the RAB. These amendments include:

- correcting the annual actual inflation rates for RAB indexation
- correcting the asset class allocation of actual gross capex from 2011 to 2014
- adjusting allowed equity raising costs to the correct dollar terms
- adjusting the proposed capex for the movement in capitalised provisions
- amending the proposed approach to the indexation adjustment required in the RAB.

These amendments reduced the proposed opening RAB as at 1 January 2016 by \$17.5 million (or 0.8 per cent) compared to United Energy's proposed opening RAB of \$2069.3 million (\$ nominal) at 1 January 2016.¹⁶

To determine the opening RAB as at 1 January 2016, we have rolled forward the RAB over the 2011–15 regulatory control period to determine a closing RAB value at 31 December 2015. This roll forward includes an adjustment at the end of the 2011–15 regulatory control period to account for the difference between actual 2010 capex and the estimate approved at the 2011–15 determination.¹⁷

Tables 4 and 5 set out our preliminary decision on the roll forward of United Energy's RAB for the 2010–15 regulatory control period and the forecast RAB for United Energy during the 2016–20 regulatory control period respectively.

Table 4 AER's preliminary decision on United Energy's RAB for the 2011–15 regulatory control period (\$ million, nominal)

	2011	2012	2013	2014	2015 ^a
Opening RAB	1380.2	1535.6	1666.1	1780.8	1916.3
Capital expenditure	183.5	194.7	184.9	210.5	199.9
Inflation indexation on opening RAB	48.6	30.8	36.0	41.1	44.2
Less: straight-line depreciation	76.7	95.0	106.1	116.1	129.1
Closing RAB	1535.6	1666.1	1780.8	1916.3	2031.2
Difference between estimated and actual capex in 2010					1.4
Return on difference for 2010 capex					0.8
Six month CPI adjustment					18.5
Closing RAB as at 31 December 2015					2051.9

¹⁶ United Energy, *Regulatory proposal*, April 2015, p. 100.

¹⁷ The end of period adjustment will be positive (negative) if actual capex is higher (lower) than the estimate approved at the 2011–15 determination.

Source: AER analysis.

(a): Based on estimated capex. We will update the RAB roll forward in the substitute decision.

(b): Net of disposals and capital contributions, and adjusted for CPI.

Table 5 AER's preliminary decision on United Energy's RAB for the 2016–20 regulatory control period (\$ million, nominal)

	2016	2017	2018	2019	2020
Opening RAB	2051.9	2175.7	2298.9	2412.7	2519.5
Capital expenditure ^a	178.3	183.7	182.7	175.5	174.5
Inflation indexation on opening RAB	51.3	54.4	57.5	60.3	63.0
Less: Straight-line depreciation	105.7	115.0	126.4	129.0	125.8
Closing RAB	2175.7	2298.9	2412.7	2519.5	2631.2

Source: AER analysis.

(a) Net of forecast disposals and capital contributions.

We determine a forecast closing RAB value at 31 December 2020 of \$2631.2 million (\$ nominal). This is \$268.3 million (or 9.3 per cent) lower than the amount of \$2899.5 million (\$ nominal) United Energy proposed. Our preliminary decision on the forecast closing RAB reflects the amended opening RAB as at 1 January 2016, and our preliminary decisions on forecast capex (attachment 6) and forecast regulatory depreciation (attachment 5).

We determine that the forecast depreciation approach is to be used to establish the opening RAB at the commencement of the 2021–25 regulatory control period for United Energy.¹⁸

Details of our preliminary decision on the value of the RAB are set out in attachment 2.

3.2 Rate of return (return on capital)

The return on capital provides a distributor with revenue to service the interest on its loans and to give a return on equity to shareholders. This building block is calculated as a product of the rate of return and the value of the RAB.¹⁹

The NER sets out that the allowed rate of return must be commensurate with the efficient financing costs of a benchmark efficient entity with a similar degree of risk as

¹⁸ NER, cl. 6.12.1(18).

¹⁹ NER, cl. 6.5.2(a).

that which applies to the distributor in respect of the provision of distribution services.²⁰ The NER refers to this requirement as the allowed rate of return objective.

We have determined an allowed rate of return of 6.12 per cent (nominal vanilla²¹), subject to annually updating cost of debt. We have not accepted United Energy's proposed 7.38 per cent return.²² In accordance with the Rate of Return Guideline, we will update the rate of return annually, consistent with United Energy's proposal and our approach to return on debt.²³ Table 6 sets out the parameters we have used to determine the rate of return.

Table 6 AER's preliminary determination on United Energy's rate of return (nominal)

	AER previous decision (2011–15)	United Energy proposal (2016) ^(a)	AER preliminary decision (2016)	Return over 2016–20 regulatory control period
Return on equity (nominal post-tax)	10.28%	9.95%	7.3%	Remains constant (7.3%)
Return on debt (nominal pre-tax)	8.97%	5.67%	5.33%	Updated annually
Gearing	60%	60%	60%	Remains constant (60%)
Nominal vanilla WACC	9.49%	7.38%	6.12%	Updated annually as return on debt is updated
Forecast inflation	2.57%	2.50%	2.50%	Remains constant (2.50%)

Source: AER analysis; United Energy, *Regulatory proposal*, April 2015; AER, *Final decision: Victorian electricity distribution network service providers, Distribution determination 2011–15*, October 2010. The Australian Competition Tribunal, *Application by United Energy Distribution Pte Ltd (No 2) [2012] ACompT 8 (5 April 2012)*.

(a) United Energy's regulatory proposal uses values derived from the placeholder averaging periods for risk free rate and rate on debt.

²⁰ NER, cl. 6.5.2(b).

²¹ The nominal vanilla WACC combines a post-tax return on equity and a pre-tax return on debt, for consistency with other building blocks.

²² United Energy, *Regulatory proposal*, April 2015, p. 103.

²³ NER, cl. 6.5.2(i)(2); United Energy, *Regulatory proposal*, April 2015, p. 105.

Our approach

All NER requirements relating to the rate of return are subject to the overall rate of return achieving the allowed rate of return objective.²⁴ The NER recognises that there may be several plausible answers that could achieve the allowed rate of return objective.²⁵ We agree with stakeholders that predictability of outcomes in rate of return issues consistent with prevailing market conditions could materially benefit the long term interests of consumers.²⁶

We developed our approach prior to the submission of this regulatory proposal, as required by the rate of return framework in the NER. In December 2013, we published the Rate of Return Guideline,²⁷ as contemplated by the NER. The Guideline was developed through extensive consultation in 2013.

Return on debt

In our previous regulatory decisions, we used an on-the-day approach to determine the return on debt.²⁸ This is the approach that many Australian regulators continue to use.

However, for this preliminary decision as with all our other decisions, we have determined a return on debt estimate that gradually transitions from an on-the-day approach to a trailing average approach.²⁹ This is consistent with the approach most stakeholders supported during the Guideline development process. In its regulatory proposal, United Energy proposed a different hybrid approach to ours.³⁰

Return on equity

United Energy has departed from the Rate of Return Guideline in proposing a return on equity of 9.95 per cent.³¹ Our approach involves considering all the information before

²⁴ NER, cl. 6.5.2(b).

²⁵ AEMC, *Rule determination: National electricity amendment (Economic regulation of network service providers) Rule 2012: National gas amendment (Price and revenue regulation of gas services) Rule 2012*, 29 November 2012, p. 67 (AEMC, *Final rule change determination*, November 2012); AEMC, *Final rule change determination*, November 2012, p. iv, AEMC, *Final rule change determination*, November 2012, p. 38; The High Court of NZ stated: 'In determining WACC, precision is therefore an elusive and perhaps non-existent quality. Setting WACC is, we suggest, more of an art than a science. The use of WACC, in conjunction with RAB values, to set prices and revenue in price-quality regulation gives significance to WACC estimates that may not exist outside this context.' *Wellington International Airport Ltd & Others v Commerce Commission* [2013] NZHC 3289, para. 1189.

²⁶ ENA, *Response to the Draft Rate of Return Guideline of the AER*, 11 October 2013, p. 1; AER, *Better regulation: Explanatory statement Rate of Return Guideline, Appendices*, December 2013, Appendix I, Table I.4, pp.185–186.

²⁷ NER, cl. 6.5.2(m).

²⁸ This involved determining the return on debt by reference to the return on BBB+ rated bonds over a 10-40 business day averaging period that occurred as close as practicable to the start of the 2016–20 regulatory control period.

²⁹ In broad terms, this means that over the longer term the return on debt for any year will represent the average return on debt over the previous ten years.

³⁰ United Energy, *Regulatory proposal*, April 2015, p. 106.

³¹ United Energy, *Regulatory proposal*, April 2015, pp. 104–105.

us, through a six step process as set out in the Guideline (foundation model approach). This includes detailed consideration of a number of financial models for determining the return on equity.³² Considering all of this material helps inform a return on equity estimate that contributes to the achievement of the allowed rate of return objective.

We consider that the Sharpe–Lintner capital asset pricing model (SLCAPM) is the superior financial model in terms of estimating expected equity returns. We have therefore adopted this model as our foundation model. The evidence before us indicates that on balance employing our foundation model approach and using the SLCAPM as the foundation model is expected to lead to a rate of return that achieves the allowed rate of return objective.³³

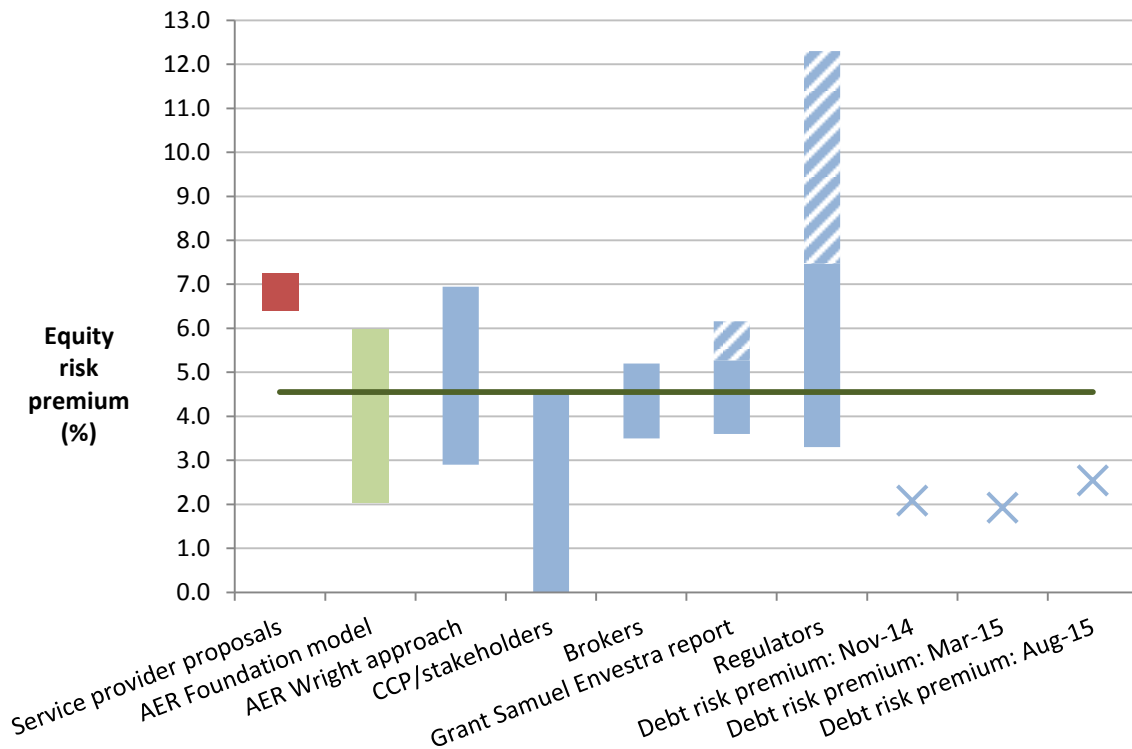
We also evaluated our point estimate from the SLCAPM against other information. The critical allowance for an equity investor in a benchmark efficient entity is the allowed equity risk premium (ERP) over and above the estimated risk free rate at any given time.³⁴ Our estimate of the ERP for the benchmark efficient entity is 4.55 per cent which is within range of other information available to inform the return on equity (see figure 6). A detailed explanation of our findings on return on equity and this figure can be found in the attachment 3: Rate of return.

³² NER, cl. 6.5.2(e)(1).

³³ McKenzie & Partington, *Part A: Return on equity, Report to the AER*, October 2014, p. 13; John Handley, *Advice on return on equity, Report prepared for the AER*, October 2014, p. 3.

³⁴ Our task is to determine the efficient financing costs commensurate with the risk of providing regulated network service by an efficient benchmark entity (allowed rate of return objective). Risks in this context are those which are compensated via the return on equity (systematic risks).

Figure 6 Other information comparisons with the AER allowed ERP



Source: AER analysis and various submissions and reports.

Notes: The AER foundation model equity risk premium (ERP) range uses the range and point estimate for MRP and equity beta as set out in step three. The calculation of the Wright approach, debt premium, brokers, and other regulators ranges is outlined in Appendices E.1, E.2, E.4, and E.5 respectively.

Grant Samuel's final WACC range included an uplift above an initial SLCAPM range. The lower bound of the Grant Samuel range shown above excludes the uplift while the upper bound includes the uplift and is on the basis that it is an uplift to return on equity. Grant Samuel made no explicit allowance for the impact of Australia's dividend imputation system. We are uncertain as to the extent of any dividend imputation adjustment that should be applied to estimates from other market practitioners. Accordingly, the upper bound of the range shown above includes an adjustment for dividend imputation, while the lower bound does not. The upper shaded portion of the range includes the entirety of the uplift on return on equity and a full dividend imputation adjustment.

The shaded portion of the other regulators range represents the impact of rail decisions on the range. We consider rail networks are unlikely to be comparable to the benchmark efficient entity.

The service provider proposals range is based on the proposals from businesses for which we are making final or preliminary decisions in October-December 2015. Equity risk premiums were calculated as the proposed return on equity less the risk free rate utilised in the service provider's proposed estimation approach.

The CCP/stakeholder range is based on submissions made (not including service providers) in relation to our final or preliminary decisions in October-December 2015. The lower bound is based on the Alliance of Electricity Consumers submission on Energex and Ergon Energy revised proposals. The upper bound is based on Origin Energy's submission on the preliminary decision for SA Power Networks.

3.3 Value of imputation credits (gamma)

Under the Australian imputation tax system, investors can receive an imputation credit for income tax paid at the company level.³⁵ These are received after company income tax is paid, but before personal income tax is paid. For eligible investors, this credit offsets their Australian income tax liabilities. If the amount of imputation credits received exceeds an investor's tax liability, that investor can receive a cash refund for the balance. Imputation credits are therefore a benefit to investors in addition to any cash dividend or capital gains they receive from owning shares.

In determining a service provider's revenue allowance, the NER requires that the estimated cost of corporate income tax be estimated in accordance with a formula that reduces the estimated cost by the 'value of imputation credits'.³⁶ That is, the revenue granted to a service provider to cover its expected tax liability must be reduced in a manner consistent with the value of imputation credits.

Our preliminary decision is to adopt a value of imputation credits of 0.4. This differs from United Energy's proposed value of imputation credits of 0.25.³⁷

Although we have broadly maintained the approach to determining the value of imputation credits set out in the Rate of Return Guideline, we have re-examined the relevant evidence and estimates. This re-examination, and new evidence and advice considered for the first time since the Guideline, led us to depart from the value of 0.5 in the Guideline. Most notably, our updated consideration of the relevant advice and evidence led us to generally lower estimates of the 'utilisation rate' from the 0.7 estimate of the Guideline. Estimating the value of imputation credits is a complex and somewhat imprecise task. There is no consensus among experts on the appropriate value or estimation techniques to use.

Consistent with the relevant academic literature, we estimate the value of imputation credits as the product of the distribution rate and the utilisation rate. While there is a widely accepted approach to estimating the distribution rate, there is no single accepted approach to estimating the utilisation rate and there is a range of evidence relevant to the utilisation rate. This includes:

- the proportion of Australian equity held by domestic investors (the 'equity ownership approach').
- the reported value of credits utilised by investors in Australian Taxation Office (ATO) statistics ('tax statistics').
- implied market value studies—there is no separate market in which imputation credits are traded, and therefore there is no observable market price for imputation credits.

³⁵ *Income Tax Assessment Act 1997*, parts 3–6.

³⁶ NER, cl. 6.4.3(a)(4), 6.4.3(b)(4), 6.5.3.

³⁷ United Energy, *Regulatory proposal*, April 2015, p. 117.

In estimating the utilisation rate, we place:

- significant reliance upon the equity ownership approach
- some reliance upon tax statistics
- less reliance upon implied market value studies.

Overall, the evidence on the distribution rate and the utilisation rate suggests that a reasonable estimate of the value of imputation credits is within the range 0.3 to 0.5. From within this range, we choose a value of 0.4. This is because:

- the equity ownership approach, on which we have placed the most reliance, suggests a value between 0.40 and 0.47 when applied to all equity and between 0.29 and 0.42 when applied to only listed equity. Therefore, the overlap of the evidence from the equity ownership approach suggests a value between 0.40 and 0.42.
- the evidence from tax statistics suggests the value could be lower than 0.4. Therefore, with regard to this evidence and the less reliance we place on it, we choose a value at the lower end of the range suggested by the overlap of evidence from the equity ownership approach (that is, 0.4).
- an estimate of 0.4 is reasonable in light of both higher and lower estimates from implied market value studies and the lesser degree of reliance we place on these studies. The service providers submitted evidence to support placing more reliance on SFG's dividend drop off study relative to other implied market value studies. However, we consider that neither the difference from 0.4 of the estimate from this study (0.31) nor any increased reliance we might place on it relative to other implied market value studies are sufficient to warrant an estimate lower than 0.4.

3.4 Regulatory depreciation (return of capital)

Depreciation is the allowance provided so that capital investors recover their investment over the economic life of the asset (return of capital). We are required to decide on whether to approve the depreciation schedules submitted by United Energy.³⁸ In doing so, we make a determination on the indexation of the RAB and depreciation building blocks for United Energy's 2016–20 regulatory control period.

Our preliminary decision is to determine a regulatory depreciation allowance of \$315.4 million (\$ nominal) for United Energy. This amount represents a decrease of \$72.7 million (\$ nominal) (or 18.7 per cent) of the \$388.2 million (\$ nominal) United Energy proposed for the 2016–20 regulatory control period.³⁹ In coming to this decision:

³⁸ NER, cl. 6.12.1(8).

³⁹ United Energy, *Regulatory proposal*, April 2015, Document ID: REG3.2 (PTRM)

- We accept United Energy's proposed asset classes, its straight-line depreciation method, and the standard asset lives used to calculate the regulatory depreciation allowance.⁴⁰
- We accept the creation of a new 'SCADA (10-year asset)' asset class. This asset class will contain SCADA, network control and protection system capex incurred from 1 January 2016. We also accept the proposed standard asset life for this new asset class.
- We accept the creation of a new non-depreciating 'Land' asset class. This asset class will contain any land related capex incurred from 1 January 2016.
- We do not accept United Energy's proposed average depreciation method to calculate remaining asset lives at 1 January 2016. We have instead applied a weighted average remaining life approach. The revised remaining asset lives also reflect other adjustments to the RAB in the RFM, as discussed in attachment 2.
- We made determinations on other components of United Energy's proposal that also affect the forecast regulatory depreciation allowance—for example, the forecast capex (attachment 6) and the opening RAB value (attachment 2).⁴¹

Table 7 sets out our preliminary decision on United Energy's depreciation allowance for the 2016–20 regulatory control period.

Table 7 AER's preliminary decision on United Energy's depreciation allowance for the 2016–20 regulatory control period (\$ million, nominal)

	2016	2017	2018	2019	2020	Total
Straight-line depreciation	105.7	115.0	126.4	129.0	125.8	601.9
Less: inflation indexation on opening RAB	51.3	54.4	57.5	60.3	63.0	286.5
Regulatory depreciation	54.4	60.6	68.9	68.7	62.8	315.4

Source: AER analysis.

Details of our preliminary decision on the regulatory depreciation allowance are set out in attachment 5.

3.5 Capital expenditure

Capital expenditure (capex) refers to the capital expenses incurred in the provision of network services. The return on and return of forecast capex for standard control services are two of the building blocks we use to determine a service provider's total revenue requirement.

⁴⁰ The standard asset lives are used to depreciate forecast capex.

⁴¹ NER, cl. 6.5.5(a)(1).

We estimate total capex of \$814.8 million (\$2015) for United Energy’s 2016–20 regulatory control period—which is a 26.2 per cent reduction to United Energy’s forecast capex of \$1104.0 (\$2015). We are satisfied our substitute estimate of United Energy’s total forecast capex reasonably reflects the capex criteria. Table 8 shows our preliminary decision compared to United Energy’s forecast.

Table 8 AER preliminary decision on total net capex (\$million 2015)

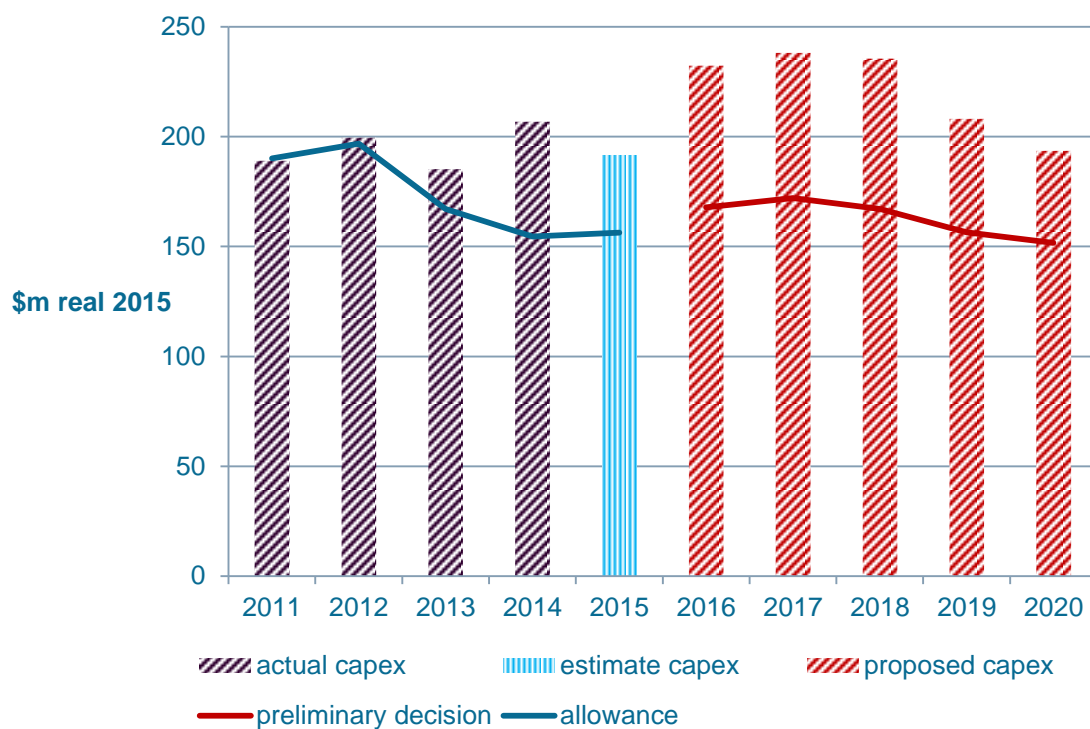
	2016	2017	2018	2019	2020	Total
United Energy’s proposal	228.8	238.1	235.5	208.1	193.5	1,104.0
AER preliminary decision	167.8	172.0	166.9	156.4	151.7	814.8
Difference	-61.0	-66.1	-68.6	-51.7	-41.8	-289.2
Percentage difference (%)	-26.7	-27.8	-29.1	-24.8	-21.6	-26.2

Source:

Note: Numbers may not add up due to rounding.

Figure 7 shows our preliminary capex decision compared to United Energy’s proposal, its past allowances and past actual expenditure. Our total capex allowance includes amounts for repex and connections that are marginally higher than United Energy’s expenditure in the 2011–15 period. However, we have included lower amounts for augex and non-networks. This has resulted in our allowance for total capex for the 2016–20 period being lower than United Energy’s actual capex in the 2011–15 period.

Figure 7 United Energy total actual and forecast capex 2011–2020



We examined United Energy's forecasting methodology, key assumptions and past capex performance. Our detailed reasons for our final decision on United Energy's capex are set out in attachment 6 of this decision.

The key points of our capex estimate for United Energy are:⁴²

- Our alternative estimate of total capex includes \$127.0 million (\$2015) for augex. This is 23.7 per cent lower than United Energy's augex proposal of \$166.5 million. Our estimate reflects the use of AEMO's value of customer reliability (VCR), instead of United Energy's higher proposed VCR, and a realistic forecast of maximum demand.
- Our alternative estimate of total capex includes \$414 million (\$2015) for repex. This is 29 per cent lower than United Energy's forecast of \$585 million (\$2015). Our repex modelling estimates a lower amount of "business as usual" repex is necessary compared to United Energy's forecast for the modelled categories of repex. We also do not accept United Energy's proposed increase to repex for categories it has reported under "other" repex. We accept there may be a need to replace a number of these assets. However, we are of the view that United Energy has not provided justification why it needs to spend significantly more repex on some of these categories in the forthcoming period. United Energy has not provided business cases with reasonable options analysis or sufficient cost-benefit analysis to justify the proposed repex, and there is a lack of top-down assessment.
- We have included United Energy's forecast of connections capex of \$249.1 million (\$2015). We are satisfied with the forecast after considering long term trends. Also, we consider the forecast is consistent with expected connection activity in Victoria.
- Our capex estimate includes customer contributions of \$91.4 million (\$2015). This is the same as United Energy's forecast as we are satisfied the methodology United Energy has applied to its gross connections capex forecast to generate a contribution rate is sourced from a sufficiently large sample of projects. This, combined with the trending approach United Energy applied, allows us to be satisfied it has demonstrated that the sample used is reflective of the projects included in its gross connections capex forecast.
- We have included in our alternative estimate of total capex \$134.6 million (\$2015) for non-network capex. This is 30.8 per cent lower than United Energy's forecast of \$194.6 million (\$2015). Our estimate is lower than United Energy's forecast because we do not accept its proposed costs for IT system changes for Power of Choice reforms and regulatory information reporting. The proposed changes are either based on regulatory reforms which remain uncertain or do not reflect an efficient level of investment.

⁴² We obtained United Energy's proposed capex figures from its RIN. Our assessment used information from information subsequently provided by United Energy.

Our total capex allowance also includes expenditure from new safety obligations arising as a result of the recommendations of the 2009 Victorian Bushfire Royal Commission.

3.6 Operating expenditure

Operating expenditure (opex) is non-capital expenditure incurred in the provision of distribution network services. It includes labour and other non-capital costs that United Energy is likely to require to operate and maintain its network during the 2016–20 regulatory control period.

United Energy forecast total opex of \$793.8 million (\$2015) over the 2016–20 regulatory control period. Our preliminary decision is we are not satisfied United Energy’s forecast opex reasonably reflects the opex criteria. Where we find that a distributors’ forecast opex does not reasonably reflect the opex criteria, the NER instruct us to not accept it and replace it with a forecast that we are satisfied reasonably reflects the opex criteria.

Attachment 7 sets out our detailed reasons for our preliminary decision on United Energy’s total forecast opex. We compare our estimate with United Energy’s proposal in table 9.

Table 9 AER preliminary decision on total opex (\$ million, 2015)

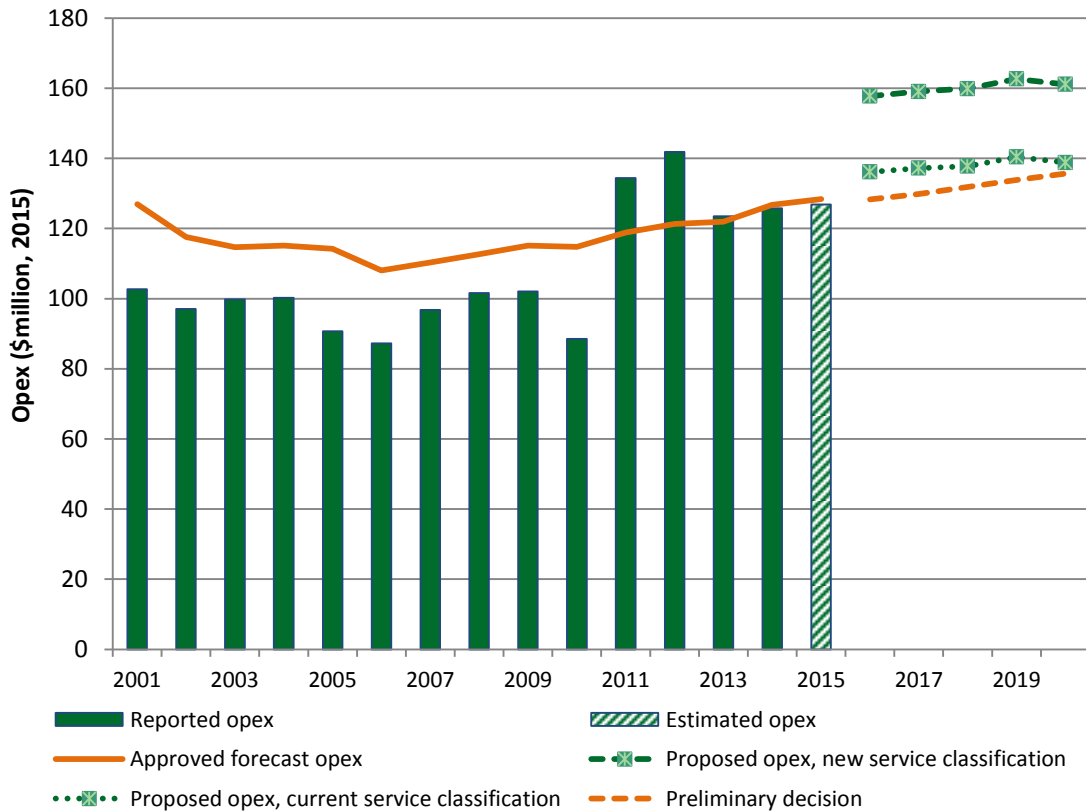
Year ending 30 June	2016	2017	2018	2019	2020	Total
United Energy’s proposal	155.4	157.8	158.8	161.6	160.4	793.8
AER preliminary decision	128.3	129.9	131.9	133.9	135.6	659.5
Difference	-27.1	-27.9	-26.9	-27.7	-24.7	-134.3

Source: AER analysis.

Note: Includes debt raising costs. Excludes DMIA.

Figure 8 shows our preliminary decision compared to United Energy’s proposal, its past allowances and past actual expenditure. Notably, United Energy included significant opex for 2016–20 for smart meters that was not previously classified as standard control services opex. We have allocated these costs to alternative control services rather than standard control services—therefore our preliminary decision is on the basis of this cost allocation for advanced metering infrastructure (AMI) opex.

Figure 8 AER preliminary decision compared to United Energy’s past and proposed opex (\$million, 2015)



Source: United Energy, Regulatory accounts 2011 to 2014; United Energy, Economic benchmarking - Regulatory Information Notice response 2006 to 2013; AER analysis.

We have used United Energy’s reported opex for 2014 as the basis for forecasting total opex. The difference between our forecast opex and United Energy’s proposal mainly reflects our views on step changes and the allocation of advanced metering infrastructure (AMI) related opex.

3.6.1 Step changes

We generally only forecast step changes in opex for regulatory changes, other external drivers or for efficient changes capex/opex trade-offs.

We have included one step change in our opex forecast. We are satisfied that additional opex associated with United Energy’s pole top inspection program arises due to an efficient capex/opex trade-off.

We also consider the amendments to Electric Line Clearance Regulations 2015 (published 28 June 2015) may result in a change in United Energy’s costs. However, given the uncertainty around the net impact of these changes we have not included a step change at this time.

We are not satisfied there are reasons to change our opex forecast for any other step changes United Energy proposed

3.6.2 Advanced metering infrastructure

We have not included opex for advanced metering infrastructure (AMI) expenditure in our forecast. During the 2011–15 regulatory control period, incremental costs associated with implementing smart meters were regulated under the AMI Order in Council (OIC). This included costs associated with new or upgraded IT systems.

With the expiry of the AMI OIC at 31 December 2016, opex associated with AMI will be regulated under the NER and allocated between standard control services and alternative control services. Given the rollout of smart meters is largely complete, this opex is for the business-as-usual costs of maintaining the metering infrastructure. Until we issue new Distribution Ring Fencing Guidelines that will set out how metering costs should be treated, we consider all costs formerly regulated under the AMI OIC should be allocated to alternative control services. This is similar to the historical approach where AMI costs were recovered separately to most distribution network costs. We consider this approach will assist in promoting transparency around trends in AMI and standard control expenditure.

3.7 Corporate income tax

The NER requires us to make a decision on the estimated cost of corporate income tax for United Energy's 2016–20 regulatory control period.⁴³ The estimated cost of corporate income tax contributes to our determination of the total revenue requirements for United Energy over the 2016–20 regulatory control period. It enables United Energy to recover the costs associated with the estimated corporate income tax payable during that period.

Our preliminary decision on the estimated cost of corporate income tax is \$84.6 million (\$ nominal) for United Energy over the 2016–20 regulatory control period. This is instead of United Energy's proposed cost of corporate income tax allowance of \$149.1 million (\$ nominal).⁴⁴ Our preliminary decision represents a reduction of \$64.6 million (or 43.3 per cent) from United Energy's proposal. Table 10 sets out our preliminary decision on the estimated cost of corporate income tax allowance for United Energy over the 2016–20 regulatory control period.

⁴³ NER, cl. 6.4.3(a)(4).

⁴⁴ United Energy, *Regulatory proposal*, April 2015, p. 148.

Table 10 AER's preliminary decision on United Energy's cost of corporate income tax allowance for the 2016–20 regulatory control period (\$ million, nominal)

	2016	2017	2018	2019	2020	Total
Tax payable	26.1	27.0	28.9	31.9	27.2	140.9
Less: value of imputation credits	10.4	10.8	11.5	12.8	10.9	56.4
Corporate income tax allowance	15.6	16.2	17.3	19.1	16.3	84.6

Source: AER analysis.

Our preliminary decision reflects our amendments to some of United Energy's proposed inputs for forecasting the cost of corporate income tax such as the opening tax asset base and the remaining tax asset lives. It also reflects our preliminary decision on the value of imputation credits—gamma—(attachment 4). Changes to the building block costs also affect revenues, which in turn impacts the tax calculation. The changes affecting revenues are discussed in attachment 1.

Details of our preliminary decision on the corporate income tax allowance are set out in attachment 8.

4 Service classification, control mechanisms and incentive schemes

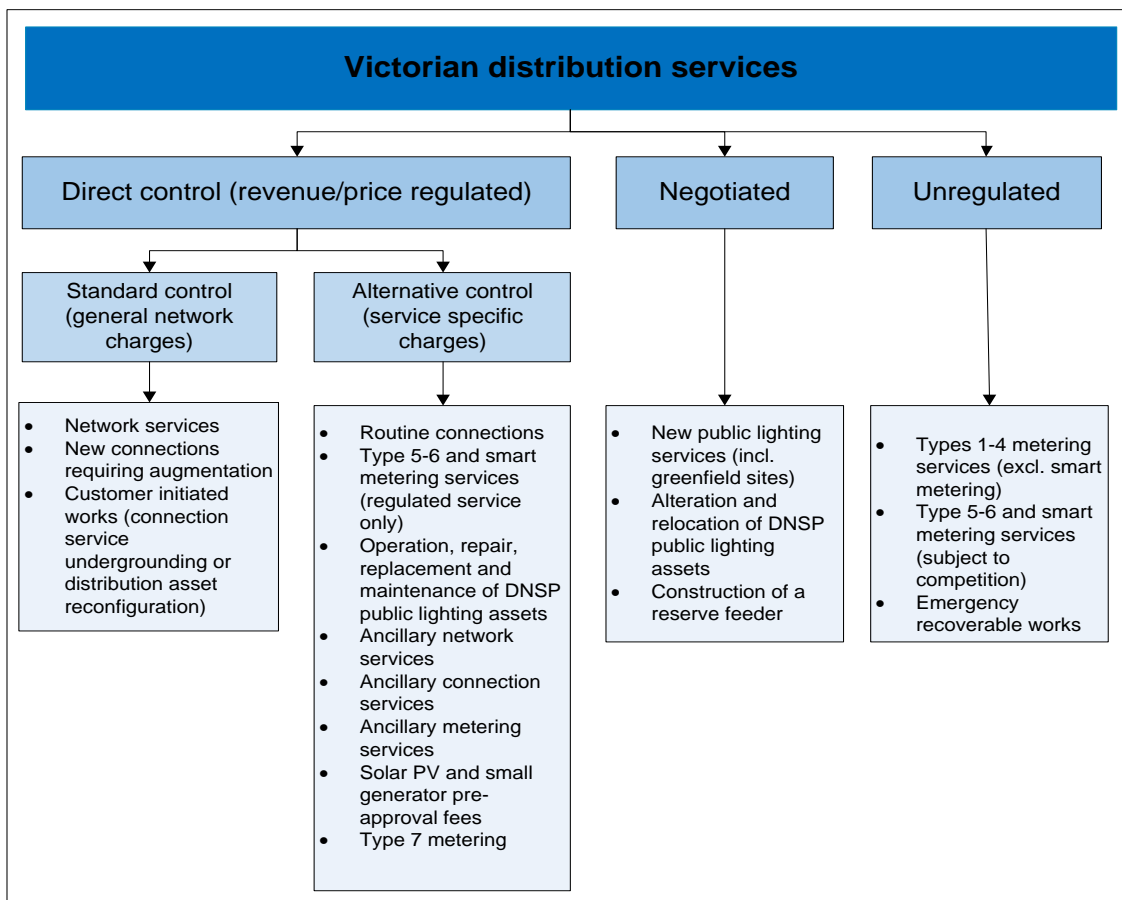
A range of factors, in addition to the building blocks, affect United Energy’s revenues. These include service classification, the control mechanism and our approach to services charged to individual consumers and incentive schemes to promote efficiency. This section sets out our approach to these issues.

4.1 Classification of services and control mechanisms

Service classification determines the nature of economic regulation, if any, applicable to specific distribution services. Classification is important to customers as it determines which network services are included in basic electricity charges, the basis on which additional services are sold, and those services we will not regulate. Our preliminary decision reflects our assessment of a number of factors, including existing and potential competition to supply these services.

Figure 9 summarises our preliminary decision on service classifications for the 2016–20 regulatory control period.

Figure 9 AER preliminary decision on 2016–20 service classifications for United Energy



Source: AER.

Consistent with our final framework and approach (F&A),⁴⁵ United Energy will be subject to a 'revenue cap' form of control for standard control services over the next regulatory control period. The control mechanism (which describes how the revenues will vary from year to year) is discussed in attachments 14 and 16. The control mechanism for standard control services is described in mathematical terms and reflects all possible adjustments that might be made to the revenue cap.

4.2 Alternative control services

Alternative control services do not form part of United Energy's revenue cap. Rather, the prices of these services are generally set individually. Our preliminary decision for all services other than metering is to maintain the approach adopted in our F&A, that the form of control mechanism to apply to United Energy's alternative control services will be price caps. As per past regulatory practice, United Energy must demonstrate compliance with the control mechanism through an annual pricing proposal.

We have set charges for fee based and quoted services that reflect the costs incurred by United Energy to provide these services. United Energy only earns revenues on these activities where they are specifically requested by individual customers. Further details are in attachment 16.

The charges for public lighting have been set on the same basis as the 2011–15 regulatory control period. That is, with United Energy operating, maintaining and replacing luminaires it owns on behalf of municipal councils in its distribution area. It does this in accordance with both our preliminary determination and the Public Lighting Code. Attachment 16 set out that there has been an increase in charges as a result of higher operating expenditures, mostly associated with the growth in labour costs.

The Advanced Metering Infrastructure rollout that commenced in 2009 under an Order in Council (the Order) is now largely completed. In the 2016–20 regulatory control period, metering in Victoria is entering a "business-as-usual" phase.

For metering services, we have set charges that recover the operating and capital expenditures associated with the ongoing provision of meters to customers from 2016. This means that we regulate metering services under the NEL and NER, subject to certain modifications set out in the Order. Those modifications contain the requirement for us to set meter restoration and exit fees which this determination includes—see attachment 16.

A revenue cap will operate for metering services during the 2016–20 regulatory control period. The completion of the rollout means that United Energy needs less revenue to

⁴⁵ AER, *Final framework and approach for the Victorian Electricity Distributors – Regulatory control period commencing 1 January 2016*, October 2014.

provide the services and as a consequence meter charges have fallen between 2015 and 2016 in particular.

United Energy has proposed that some of the costs associated with the provision of Advanced Metering Infrastructure (AMI) be classified under standard control services. We do not agree. All costs associated with AMI are classified under alternative control services. As a result, some of the difference between United Energy's forecast opex and our alternative forecast is simply as a result of reclassifying costs from standard control services to alternative control services.

4.3 Incentive schemes

Incentive schemes are a component of incentive-based regulation and complement our approach to assessing efficient costs. The incentive schemes that will apply to United Energy are:

- The efficiency benefit sharing scheme (EBSS)
- The capital expenditure sharing scheme (CESS)
- The service target performance incentive scheme (STPIS)
- The demand management incentive scheme (DMIS)
- The f-factor scheme.

Our incentive schemes encourage network businesses to make efficient decisions. They give network businesses an incentive to pursue efficiency improvements in opex and capex, and to share them with consumers. Incentives for opex and capex are balanced (approximately 30 per cent) and constant. They are also balanced with the incentives under our service target performance incentive scheme. This encourages businesses to make efficient decisions on when and what type of expenditure to incur, in order to meet service reliability targets.

4.3.1 Efficiency benefit sharing scheme

The EBSS provides an additional incentive for service providers to pursue efficiency improvements in opex.

As opex is largely recurrent and predictable, opex in one period is often a good indicator of opex in the next period (step changes provide for increases where this is not the case). Where a service provider is relatively efficient, we use the actual opex it incurred in a chosen base year of the regulatory control period to forecast opex for the next regulatory control period. We call this the 'revealed cost approach'.

To encourage a distributor to become more efficient during the regulatory control period it is allowed to keep any difference between its approved forecast and its actual opex during a regulatory control period. This is supplemented by the EBSS which allows the distributor to retain efficiency savings and efficiency losses for a longer period of time. In total these rewards and penalties work together to provide a continuous incentive for a service provider to pursue efficiency gains over the regulatory control period. The combined effect of our revealed cost forecasting

approach and the EBSS is that opex efficiency savings or losses are shared approximately 30:70 between the network businesses and consumers. For example, for a one dollar saving in opex the network business gets 30 cents of the benefit while consumers get 70 cents of the benefit.

The EBSS also discourages a distributor from incurring opex in the expected base year in order to receive a higher opex allowance in the following regulatory control period.⁴⁶

Our preliminary decision for the EBSS carryover amounts from the application of the EBSS in the 2011–15 regulatory control period is outlined in table 11. The difference between our calculations and United Energy’s proposal is mostly attributable to a different formula used to calculate EBSS carryover amounts for 2011 and a correction to the movements in provisions recorded for 2013.

Table 11 AER’s preliminary decision on United Energy's EBSS carryover amounts (\$ million, 2015)

	2016	2017	2018	2019	2020	Total
United Energy's proposed carryover	2.0	19.8	5.9	0.1	0.0	27.7
Preliminary decision	-12.0	18.6	7.5	10.7	0.0	24.7

Source: AER analysis; United Energy, *Regulatory proposal*, April 2015, p. 249.

Our preliminary decision is to apply version two of the EBSS to United Energy in the 2016–20 regulatory control period.⁴⁷ Our preliminary decision on the EBSS is discussed in Attachment 9.

4.3.2 Capital expenditure sharing scheme

The capital expenditure sharing scheme (CESS) provides a network service provider with the same reward for an efficiency saving and same penalty for an efficiency loss regardless of which year they make the saving or loss. Consumers benefit from improved efficiency through lower regulated prices.

Under the CESS a service provider retains 30 per cent of the benefit or cost of an underspend or overspend, while consumers retain 70 per cent of the benefit or cost of an underspend or overspend. This means that for a one dollar saving in capex the service provider keeps 30 cents of the benefit while consumers keep 70 cents of the benefit. Conversely, in the case of an overspend, the service provider pays for 30 cents of the cost while consumers bear 70 cents of the cost.

⁴⁶ These concepts are explained more fully in the explanatory statement to the EBSS, AER, *Efficiency benefit sharing scheme for electricity network service providers - explanatory statement*, November 2013.

⁴⁷ AER, *Efficiency benefit sharing scheme for electricity network service providers*, November 2013.

Our preliminary decision is to apply version 1 of the CESS, as set out the Capital Expenditure Incentives Guideline, to United Energy in the 2016–20 regulatory control period as United Energy proposed.⁴⁸ Attachment 10 sets out our reasons for our preliminary decision on CESS.

4.3.3 Service target performance incentive scheme (STPIS)

Consistent with our final F&A, our preliminary determination is to apply the service standards component (the s-factor) of our national STPIS to United Energy for the 2016–20 regulatory control period. We will not apply the guarantee service level component to United Energy as the existing Victorian jurisdictional arrangements will continue to apply.⁴⁹ Our preliminary decision is to set revenue at risk for United Energy at the range ± 5.0 per cent.

The national STPIS is intended to balance the incentives to reduce expenditure with the need to maintain or improve service quality. It achieves this by providing appropriate financial incentives to distributors to maintain and improve service performance (at the level where customers are willing to pay for these improvements).⁵⁰ Hence, the STPIS also provides an incentive for distributors to invest in further reliability improvements (via additional capex or opex) where customers are willing to pay for it. Conversely, the STPIS penalises distributors where they let reliability deteriorate beyond the acceptable level valued by customers. Importantly, the distributor will only receive a financial reward after actual improvements are delivered to the customers.

Distributors can only retain their rewards for sustained and continuous improvements to the reliability of supply to customer. Once improvements are made, the benchmark performance targets will be tightened in future years.

In conjunction with the EBSS and CESS, the STPIS will ensure that:

- any additional investments to improve reliability are based on prudent economic decisions
- reductions in capex are achieved efficiently, rather than at the expense of service levels to customers.

In setting the STPIS performance targets, we have considered both completed and planned reliability improvements expected to materially affect network reliability performance. By setting the performance targets in such a way, any incentive a distributor may have to reduce the capex at the expense of target service levels should be curtailed by the STPIS financial penalties.

⁴⁸ United Energy, *Regulatory Proposal, 2016 to 2020*, April 2015, p. 135.

⁴⁹ AER, *Final framework and approach for the Victorian Electricity Distributors, regulatory control period commencing 1 January 2016*, 24 October 2014, pp. 96–97.

⁵⁰ AER, *Electricity distribution network service providers—service target performance incentive scheme*, 1 November 2009. (AER, *Electricity distribution STPIS*, Nov 2009.

Attachment 11 sets out our preliminary decision on United Energy's service component parameter values.

4.3.4 Demand management incentive scheme

The DMIS includes a demand management innovation allowance (DMIA). The DMIA is a capped allowance for distributors to investigate and conduct broad based and/or peak demand management projects.

Our preliminary decision is to continue Part A of the DMIS for United Energy in the 2016–20 regulatory control period (that is, the DMIA component). We will not apply Part B of the DMIS to United Energy for the 2016–2020 regulatory control period because we have decided to apply a revenue cap form of control. This is consistent with our proposed approach in our final Framework and Approach paper.⁵¹

The current innovation allowance amount of \$0.4 million (\$2015) per annum will continue in the 2016–20 regulatory control period.

Attachment 12 sets out our preliminary decision on United Energy's DMIS.

4.3.5 f-factor scheme

The f-factor is an incentive scheme to reduce the risk of fire starts due to electricity infrastructure and the risk of loss or damage caused by such fire starts. The current incentive framework of the scheme is to set the performance target based on a five year historical average and an incentive rate of \$25 000 per fire start.

The f-factor scheme is prescribed by *f-factor scheme order 2011* (the Order) issued under the National Electricity (Victoria) Act 2005. The Order confers functions and powers on the AER to implement the f-factor.

As explained in the Framework and approach paper, the Department of State Development Business and Innovation advised that it intend to review the f-factor scheme in 2015 to determine how the incentive has performed in delivering efficient improvements to power line bushfire safety. Because of this, we will retain the current incentive framework for the purpose of this preliminary decision to set the target based on a five year historical average and an incentive rate of \$25 000 per fire start. We will amend this scheme as appropriate to reflect any changes by the Victorian Government following the review.

Attachment 18 sets out our preliminary decision on the f-factor scheme.

⁵¹ AER, *Final Framework and Approach for the Victorian Electricity Distributors*, October 2014, p. 114.

5 Understanding the NEO

The NEO is the central feature of the regulatory framework. The NEO is to:

- promote efficient investment in, and efficient operation and use of, electricity services for the long term interests of consumers of electricity with respect to—
- (a) price, quality, safety, reliability and security of supply of electricity; and
 - (b) the reliability, safety and security of the national electricity system.⁵²

Energy Ministers have provided us with a substantial body of explanatory material that guides our understanding of the NEO.⁵³ The long term interests of consumers are not delivered by any one of the NEO's factors in isolation, but rather by balancing them in reaching a regulatory decision.⁵⁴

In general, we consider that we will achieve this balance and, therefore, contribute to the achievement of the NEO, where consumers are provided a reasonable level of safe and reliable service that they value at least cost in the long run.⁵⁵ We have also considered the quality and reliability of services provided to consumers. For example, opex allowances have been set so United Energy may meet existing and new regulatory requirements. Repex allowances take into account the age and condition of assets. We have allowed sufficient augex and connections capex to cater for expected areas of growth. Our capex allowance is based on a contemporary estimate of the value of customer reliability. And the STPIS encourages maintenance, and indeed improvement of, service quality.

The nature of decisions under the NER is such that there may be a range of economically efficient decisions, with different implications for the long term interests of consumers.⁵⁶ At the same time, however, there are a range of outcomes that are unlikely to advance the NEO, or advance the NEO to the degree that others would.

For example, we do not consider that the NEO would be advanced if allowed revenues encourage overinvestment and result in prices so high that consumers are unwilling or unable to efficiently use the network.⁵⁷ This could have significant longer term pricing implications for those consumers who continue to use network services.

⁵² NEL, s. 7.

⁵³ Hansard, SA House of Assembly, 9 February 2005, pp. 1451–1460.
Hansard, SA House of Assembly, 27 September 2007, pp. 963–972.
Hansard, SA House of Assembly, 26 September 2013, pp. 7171–7176.

⁵⁴ Hansard, SA House of Assembly, 26 September 2013, p. 7173.

⁵⁵ Hansard, SA House of Assembly, 9 February 2005, p. 1452.

⁵⁶ *Re Michael: Ex parte Epic Energy* [2002] WASCA 231 at [143].

Energy Ministers also accept this view – see Hansard, SA House of Assembly, 26 September 2013 p. 7172.

AEMC, *Rule Determination National Electricity Amendment (Economic Regulation of Transmission Services) Rule 2006 No. 18*, p. 50.

⁵⁷ NEL, s. 7A(7).

Equally, we do not consider the NEO would be advanced if allowed revenues result in prices so low that investors are unwilling to invest as required to adequately maintain the appropriate quality and level of service, and where customers are making more use of the network than is sustainable. This could create longer term problems in the network⁵⁸ and could have adverse consequences for safety, security and reliability of the network.

The NEL also includes the revenue and pricing principles (RPP),⁵⁹ which support the NEO. As the NEL requires,⁶⁰ we have taken the RPPs into account throughout our analysis. The RPPs are:

A regulated network service provider should be provided with a reasonable opportunity to recover at least the efficient costs the operator incurs in—

- providing direct control network services; and
- complying with a regulatory obligation or requirement or making a regulatory payment.

A regulated network service provider should be provided with effective incentives in order to promote economic efficiency with respect to direct control network services the operator provides. The economic efficiency that should be promoted includes—

- efficient investment in a distribution system or transmission system with which the operator provides direct control network services; and
- the efficient provision of electricity network services; and
- the efficient use of the distribution system or transmission system with which the operator provides direct control network services.

Regard should be had to the regulatory asset base with respect to a distribution system or transmission system adopted—

- in any previous—
- as the case requires, distribution determination or transmission determination; or
- determination or decision under the National Electricity Code or jurisdictional electricity legislation regulating the revenue earned, or prices charged, by a person providing services by means of that distribution system or transmission system; or
- in the Rules.

A price or charge for the provision of a direct control network service should allow for a return commensurate with the regulatory and commercial risks

⁵⁸ NEL, s. 7A(6).

⁵⁹ NEL, s. 7A.

⁶⁰ NEL, s. 16(2).

involved in providing the direct control network service to which that price or charge relates.

Regard should be had to the economic costs and risks of the potential for under and over investment by a regulated network service provider in, as the case requires, a distribution system or transmission system with which the operator provides direct control network services.

Regard should be had to the economic costs and risks of the potential for under and over utilisation of a distribution system or transmission system with which a regulated network service provider provides direct control network services.

Consistent with Energy Ministers' views, we set revenue allowances to balance all elements of the NEO and consider each of the RPPs.⁶¹ For example:

- In determining forecast opex and capex that reasonably reflects the opex and capex criteria, we take into account the revenue and pricing principle that we should provide United Energy with a reasonable opportunity to recover at least efficient costs. (Refer to capex attachment 6 and opex attachment 7).
- We take into account the economic costs and risks of the potential for under and over investment by a network service provider in our assessment of United Energy's forecast capital expenditure and operating expenditure proposals. (Refer to capex attachment 6 and opex attachment 7).
- We consider the economic costs and risks of the potential for under and over utilisation of United Energy's distribution system in our demand forecasting and augmentation determinations (Refer to capex attachment 6).
- Our application on the EBSS, CESS, STPIS and DMIS in this determination provide United Energy with effective incentives which we consider will promote economic efficiency with respect to the direct control services that United Energy provides throughout the regulatory control period. (Refer to attachments 9, 10, 11 and 12).
- We have determined United Energy's opening RAB taking into account the RAB adopted in the previous distribution determination. (Refer to attachment 2, regulatory asset base).
- The allowed rate of return objective reflects the revenue and pricing principle in s.7A(5). We have determined a rate of return that we consider will provide United Energy with a return commensurate with the regulatory and commercial risks involved in providing direct control services. (Refer to attachment 3, rate of return).
- Our financing determinations provide the distributor with a reasonable opportunity to recover at least the efficient costs of accessing debt and capital. (Refer to attachment 3, rate of return).

⁶¹ Hansard, *SA House of Assembly*, 27 September 2007 pp. 965. Hansard, *SA House of Assembly*, 26 September 2013, p. 7173.

In some cases, our approach to a particular component (or part thereof) results in an outcome towards the end of the range of options that may be favourable to the businesses, for example, our choice of equity beta. While it can be difficult to quantify the exact revenue impact of these individual decisions, we have identified where we have done so in our attachments. Some of these decisions include:

- selecting at the top of the range for the equity beta
- setting the return on debt by reference to data for a BBB broad band credit rating, when the benchmark is BBB+
- the cash flow timing assumptions in the post-tax revenue model.

We take into account the RPPs when exercising discretion about an appropriate estimate. This requires a recognition that for the long term interests of consumers, the risk of under compensation for, or underinvestment by, a service provider may be less desirable than the risk of overcompensation or overinvestment. However, the AER is also conscious of the risk of introducing an inherent bias towards higher amounts where estimates throughout the different components of the determination are each set too conservatively.⁶² The legislative framework recognises the complexity of this task by providing the AER with significant discretion in many aspects of the decision-making process to make judgements on these matters.

Chapter 6 of the NER provides specifically for the economic regulation of distributors. It includes rules about the constituent components of our decisions. These are intended to contribute to the achievement of the NEO.⁶³

5.1 Achieving the NEO to the greatest degree

A distribution determination is a complex decision and must be considered as such. In most instances, the provisions of the NER do not point to a single answer, either for our decision as a whole or in respect of particular components. They require us to exercise our regulatory judgement. For example, chapter 6 of the NER requires us to prepare forecasts, which are predictions about unknown future circumstances. As a result, there will likely always be more than one plausible forecast. There is substantial debate amongst stakeholders about the costs we must forecast, with both sides often supported by expert opinion. As a result, for certain components of our decision there may be several plausible answers or several plausible point estimates.

When the constituent components of our decision are considered together, this means there will almost always be several potential, overall decisions. More than one of these may contribute to the achievement of the NEO. Where this is the case, our role is to

⁶² AEMC, *Rule Determination, National Electricity Amendment (Economic Regulation of Transmission Services) Rule 2006 No. 18*, 16 November 2006, p. 52.

⁶³ NEL, s. 88.
AEMC, *Rule Determination National Electricity Amendment (Economic Regulation of Network Service Providers) Rule 2012, National Gas Amendment (Price and Revenue Regulation of Gas Services) Rule 2012*, p. 8.

make an overall decision that we are satisfied contributes to the achievement of the NEO to the *greatest* degree.⁶⁴

We approach this from a practical perspective, accepting that it is not possible to consider every permutation specifically. Where there are choices to be made among several plausible alternatives each of which would result in an overall decision that contributes to the achievement of the NEO, we have selected what we are satisfied would result in an overall decision that contributes to the achievement of the NEO to the greatest degree.

Also, in coming to this preliminary decision we have considered United Energy's regulatory proposal. We have examined each of the building block components of the proposal and the incentive mechanisms that would apply across the next regulatory control period. We have considered the submissions we received in regard to United Energy's proposal. We have conducted our own analysis and engaged expert consultant to help us better understand if and how United Energy's proposal contribute to the achievement the NEO. We have also considered how our constituent decisions relate to each other, the impact that particular constituent decisions have on other constituent components of our decision, and have described these interrelationships in this preliminary decision. We have undertaken an extensive and consultative regulatory review process to ensure we have canvassed stakeholder issues and made as much of this information publicly available as practicable. We have had regard to and weighed up all the information assembled before us in making this preliminary decision.

Therefore, we are satisfied that among the options before us our preliminary decision on United Energy's distribution determination for the 2016–20 regulatory control period contributes to the achieving the NEO to the greatest degree.

5.1.1 Interrelationships between constituent components

Examining constituent components in isolation ignores the importance of the interrelationships between components of the overall decision, and would not contribute to the achievement of the NEO. As outlined by Energy Ministers, considering the elements in isolation has resulted in regulatory failures in the past.⁶⁵ Interrelationships can take various forms, including:

- underlying drivers and context which are likely to affect many constituent components of our decision. For example, forecast demand affects the efficient levels of capex and opex in the regulatory control period (see attachment 6).
- direct mathematical links between different components of a decision. For example, the level of gamma has an impact on the appropriate tax allowance; the benchmark

⁶⁴ NEL, s. 16(1)(d).

⁶⁵ SCER, *Regulation Impact Statement: Limited Merits Review of Decision-Making in the Electricity and Gas Regulatory Frameworks – Decision Paper*, 6 June 2013, p. 6.

efficient entity's debt to equity ratio has a direct effect on the cost of equity, the cost of debt, and the overall vanilla rate of return (see attachments 3, 4 and 8).

- trade-offs between different components of revenue. For example, undertaking a particular capex project may affect the need for opex or vice versa (see attachments 6 and 7).
- trade-offs between forecast and actual regulatory measures. The reasons for one part of a proposal may have impacts on other parts of a proposal. For example, an increase in augmentation to the network means the distributor has more assets to maintain leading to higher opex requirements (see attachments 6 and 7).
- the distributor's approach to managing its network. The distributor's governance arrangements and its approach to risk management will influence most aspects of the proposal, including capex/opex trade-offs (see attachment 6).

We have considered interrelationships, including those above, in our analysis of the constituent components of our preliminary decision. These considerations are explored in the relevant attachments.

6 Consultation

Stakeholder participation is important to informed decision making under the NEL and NER. It allows us to take a range of views into account when considering how a proposal or decision contributes to the NEO. Effective consultation and engagement provide confidence in our processes and are good regulatory practice.

We have undertaken extensive consultation in developing this preliminary decision. Also, the NER require us to take account of network businesses' consultation with their customers in our consideration of their proposals. This requirement is part of recent reforms that support consumer involvement in the regulatory process (section 6.2).

6.1 Our consultation process

In developing this preliminary decision we have considered views presented to us by all stakeholders. We also received advice from expert consultants and our Consumer Challenge Panel.

The NER sets out a process for both consultation on our decisions and publication of information that will inform those decisions. Under the transitional rules for this decision, we must:

- publish the regulatory proposals and any supporting material
- invite written submissions on the regulatory proposals
- hold a public forum on the regulatory proposals
- publish a preliminary determination and reasoning
- invite written submissions on the preliminary determination
- publish a final determination and reasoning.

In developing this preliminary decision, in addition to the above steps in the consultation process, we:

- published an issues paper
- published a consumer guide on this process and our assessment approach
- sought advice from the AER's Consumer Challenge Panel
- held meetings with the Victorian consultative group, which includes Victorian consumer representatives, among others
- held training sessions on the building block model for members of the Victorian consultative group and some other stakeholders
- held a workshop on demand management with members of the Victorian consultative group and the distribution businesses
- held a workshop on demand forecasts with AEMO and the distribution businesses

- held meetings with the distribution businesses on various elements of their regulatory proposals
- sought further information from the distribution businesses about the regulatory proposals when questions arose, including through information requests.

This process builds on the consultation we undertook with a broad range of stakeholders as part of the Better Regulation program. Following the 2012 changes to the NER, we spent much of 2013 consulting on and refining our assessment methods and approaches to decision making. We referred to this as our Better Regulation program. The Better Regulation program was designed to be an inclusive process that provided an opportunity for all stakeholders to be engaged and provide their input.⁶⁶

This gives us confidence the approaches set out in our various guidelines, which we have applied in this decision, will result in outcomes that will or are likely to contribute to the achievement of the NEO to the greatest degree. Our Better Regulation guidelines are available on our website⁶⁷ and include:

- Expenditure Forecast Assessment Guideline
- Expenditure Incentives Guideline
- Rate of Return Guideline
- Consumer Engagement Guideline for Network Service Providers
- Shared Assets Guideline
- Confidentiality Guideline.

The guidelines provide businesses, investors and consumers predictability and transparency of our approach to regulation under the new rules.

6.2 Consumer engagement

Recent changes to the NER provide further support for consumer involvement in the regulatory process, and enable us to engage more productively with energy consumers and businesses.⁶⁸ Chapter 6 of the NER was amended to, among other things, require:

- distributors to submit an overview with their regulatory proposal which describes how they have engaged with consumers and sought to address any relevant concerns identified by that engagement⁶⁹
- the AER to publish an issues paper after receiving the distributor's regulatory proposal.⁷⁰ The purpose of the issues paper is to assist consumer representative

⁶⁶ AER, *Overview of the Better Regulation reform package*, April 2014, pp. 4 and 7–13.

⁶⁷ www.aer.gov.au/Better-regulation-reform-program.

⁶⁸ AEMC, *Rule determination, National Electricity Amendment (Economic Regulation of Network Service Providers) Rule 2012*.

⁶⁹ NER, cl. 6.8.2(c1)(2).

⁷⁰ NER, cl. 6.9.3(b).

groups to focus on the key preliminary issues on which they should engage and comment⁷¹

- the AER, when determining capex and opex allowances, to have regard to the extent to which the forecast includes expenditure to address the concerns of consumers as identified by the distributor in the course of its engagement with the consumers.⁷²

United Energy undertook its own engagement with consumers in developing its regulatory proposal. For example, as part of its community outreach and consultation, United Energy held individual meetings with key stakeholders and representative group workshops, and put up kiosks at shopping centres.⁷³

Victorian Energy Consumer and User Alliance (VECUA) recognised that consumer engagement is a new space for distributors. VECUA provided some perspectives to assist us in our assessment of the distributors' claims, and the distributors to improve the effectiveness of their ongoing consumer engagement efforts.⁷⁴

Specifically, VECUA submitted that the distributors need to have consumers more involved in their decision-making regarding options and preferred solutions, to provide consumers with more detailed information, and to better enable consumers to challenge the distributors through their participation. VECUA noted that a deeper level of consumer participation will result in revenue proposals that better reflect consumers' long term interests.⁷⁵

VECUA considered that United Energy made positive and genuine efforts to extensively engage with residential consumer advocates.⁷⁶ Similarly, Consumer Utilities Advocacy Centre (CUAC) submitted that United Energy's consumer engagement was meaningful and genuine.⁷⁷

CUAC submitted that United Energy's engagement process has shown good evidence of engaging with a wide range of stakeholders and reflecting their needs in its plans. CUAC considered United Energy's engagement is more often at the 'consult' or 'informs' levels than the 'involvement' level.⁷⁸

⁷¹ AEMC, *Rule determination, National Electricity Amendment (Economic Regulation of Network Service Providers) Rule 2012*.

⁷² NER, cl. 6.5.6(e)(5A) and 6.5.7(e)(5A).

⁷³ United Energy, *Shape Our Energy Future_Customer and Stakeholder Consultation*, April 2015, pp. 11–12.

⁷⁴ Victorian Energy Consumer and User Alliance, *Submission to the AER Victorian Distribution Networks' 2016–20 Revenue Proposals*, 13 July 2015, p. 49.

⁷⁵ Victorian Energy Consumer and User Alliance, *Submission to the AER Victorian Distribution Networks' 2016–20 Revenue Proposals*, 13 July 2015, p. 51.

⁷⁶ Victorian Energy Consumer and User Alliance, *Submission to the AER Victorian Distribution Networks' 2016–20 Revenue Proposals*, 13 July 2015, p. 50.

⁷⁷ Consumer Utilities Advocacy Centre, *RE Victorian electricity distribution pricing review (EDPR), 2016 to 2020*, 13 July 2015.

⁷⁸ Consumer Utilities Advocacy Centre, *RE Victorian electricity distribution pricing review (EDPR), 2016 to 2020*, 13 July 2015.

We consider that United Energy has taken important initial steps to involving consumers in the regulatory process. Stakeholder comments that United Energy's consumer engagement was meaningful and genuine is encouraging. VECUA, CUAC and the Consumer Challenge Panel indicated there are further opportunities for United Energy to improve the way it objectively seeks consumer feedback in developing its regulatory proposal.⁷⁹ ⁸⁰ We expect United Energy to consider these submissions in developing its community outreach and consumer engagement programs going forward.

⁷⁹ Victorian Energy Consumer and User Alliance, *Submission to the AER Victorian Distribution Networks' 2016-20 Revenue Proposals*, 13 July 2015, pp. 49–53; Consumer Utilities Advocacy Centre, *RE Victorian electricity distribution pricing review (EDPR), 2016 to 2020*, 13 July 2015; Consumer Challenge Panel – Sub panel 3, *Response to proposals from Victorian electricity distribution network service providers*, 5 August 2015, pp. 4–9.

⁸⁰ Further, the Ethnic Communities' Council of Victoria submitted that Victorian distribution businesses should engage more with culturally and linguistically diverse consumers—particularly those who may be disadvantaged by 'price-based mechanisms' to balance quality and service with operational costs (Submission to the Australian Energy Regulator Victoria Electricity Pricing Review, 15 July 2015, p. 6.). In contrast, CUAC submitted that United Energy's efforts to understand and respond to the cultural and linguistic diversity of its customers should be a 'characteristic' across the sector developed (RE Victorian electricity distribution pricing review (EDPR), 2016 to 2020, 13 July 2015).

A Constituent decisions

Our preliminary distribution determination is predicated on the following decisions (constituent decisions):⁸¹

Constituent decision

In accordance with clause 6.12.1(1) of the NER, the following classification of services will apply to United Energy for the 2016–20 regulatory control period (listed by service group):

- Standard control services include network services, connection services requiring augmentation, customer initiated works (connection service undergrounding or distribution asset reconfiguration)
- Alternative control services include routine connections, type 5-6 and smart metering services (regulated service only), operation, repair, replacement and maintenance of public lighting assets, ancillary network services, ancillary connection services, ancillary metering services, solar PV and small generator pre-approval fees, type 7 metering
- Negotiated distribution services include new public lighting services (incl. greenfield sites), alteration and relocation of DNSP public lighting assets, construction of a reserve feeder
- Unregulated services include type 1 to 4 metering services (excl. smart metering), type 5-6 and smart metering services (subject to competition), emergency recoverable works.

Attachment 13 of the preliminary decision discusses classification of services.

In accordance with clause 6.12.1(2)(i) of the NER, the AER does not approve the annual revenue requirement set out in United Energy's building block proposal. Our preliminary decision on United Energy's annual revenue requirement for each year of the 2016–20 regulatory control period is set out in attachment 1 of the preliminary decision.

In accordance with clause 6.12.1(2)(ii) of the NER, the AER approves United Energy's proposal that the regulatory control period will commence on 1 January 2016. Also in accordance with clause 6.12.1(2)(ii) of the NER, the AER approves United Energy's proposal that the length of the regulatory control period will be five years from 1 January 2016 to 31 December 2020.

In accordance with clause 6.12.1(3)(ii) and acting in accordance with clause 6.5.7(c), the AER does not accept United Energy's proposed total forecast capital expenditure of \$1104.0 million (\$2015). Our substitute estimate of United Energy's total forecast capex for the 2016–20 regulatory control period is \$814.8 million (\$2015). This is discussed in attachment 6 of the preliminary decision.

In accordance with clause 6.12.1(4)(ii) and acting in accordance with clause 6.5.6(d), the AER does not accept United Energy's proposed total forecast operating expenditure inclusive of debt raising costs and exclusive of DMIA of \$793.8 million (\$2015). Our substitute estimate of United Energy's total forecast opex for the 2016–20 regulatory control period is \$659.5 million (\$2015). This is discussed in attachment 7 of the preliminary decision.

In accordance with clause 6.12.1(4A)(i) the AER determines that there are no contingent projects for the purposes of the distribution determination.

United Energy did not include any proposed contingent projects in its regulatory proposal for the 2016–20 regulatory control period. Therefore,

- in accordance with clause 6.12.1(4A)(ii), the AER has not made an assessment of whether the capital expenditure proposed in the context of each contingent project reflects the capital expenditure criteria and factors
- in accordance with clause 6.12.1(4A)(iii), the AER does not specify any trigger events in relation to contingent projects
- in accordance with clause 6.12.1(4A)(iv), the AER does not determine that any proposed contingent project is not a contingent project.

⁸¹ NER, cl. 6.12.1.

Constituent decision

In accordance with clause 6.12.1(5) the AER's decision on the allowed rate of return for the first regulatory year of the regulatory control period in accordance with clause 6.5.2 is not to accept United Energy's proposal of 7.38 per cent. Our decision on the allowed rate of return for the first regulatory year of the regulatory control period is 6.12 per cent as set out in table 3.1 of attachment 3 of the preliminary decision. This rate of return will be updated annually because our decision is to apply a trailing average portfolio approach to estimating debt which incorporates annual updating of the allowed return on debt.

In accordance with clause 6.12.1(5A) the AER's decision is that the return on debt is to be estimated using a methodology referred to in clause 6.5.2(i)(2) which is set out in attachment 3 (appendix I) of the preliminary decision.

In accordance with clause 6.12.1(5B) the AER's decision on the value of imputation credits as referred to in clause 6.5.3 is to adopt a value of 0.4. This is set out in attachment 4 of the preliminary decision.

In accordance with clause 6.12.1(6) the AER's decision on United Energy's regulatory asset base as at 1 January 2016 in accordance with clause 6.5.1 and schedule 6.2 is \$2051.9 million. This is set out in attachment 2 of the preliminary decision.

In accordance with clause 6.12.1(7) the AER does not accept United Energy's proposed corporate income tax of \$149.1 million (\$ nominal). Our decision on United Energy's corporate income tax is \$84.6 million (\$ nominal). This is set out in attachment 8 of the preliminary decision.

In accordance with clause 6.12.1(8) the AER's decision is not to approve the depreciation schedules submitted by United Energy. This is set out in attachment 5 of the preliminary decision.

In accordance with clause 6.12.1(9) the AER makes the following decisions on how any applicable efficiency benefit sharing scheme, capital expenditure sharing scheme, service target performance incentive scheme, demand management and embedded generation connection incentive scheme or small-scale incentive scheme is to apply:

- In accordance with clause 6.12.1(9) of the NER, the AER's decision is to apply version two of the EBSS to United Energy in the 2016–20 regulatory control period. This is set out in attachment 9 of the preliminary decision.
- In accordance with clause 6.12.1(9) of the NER, we will apply the CESS as set out in version 1 of the Capital Expenditure Incentives Guideline to United Energy in the 2016–20 regulatory control period. CESS is discussed in attachment 10 of the preliminary decision.
- In accordance with clause 6.12.1(9) of the NER, we will apply our Service Target Performance Incentive Scheme (STPIS) to United Energy for the 2016–20 regulatory control period. STPIS is discussed in attachment 11 of the preliminary decision.
 - We will apply the System Average Interruption Duration Index (SAIDI), System Average Interruption Frequency Index (SAIFI) reliability of supply parameters, and momentary average interruption frequency index event (MAIFIE). We will also apply the customer service telephone answering parameter. We will not apply a guaranteed service level scheme as United Energy must comply with its existing Victorian jurisdictional guaranteed service level scheme.
 - A beta of 2.5 will be used to calculate the major event day boundary.
 - Our decision on the SAIDI and SAIFI incentive rates and performance targets to apply to United Energy for the 2016–20 regulatory control period are set out in tables 11.1 and 11.2 of attachment 11 of this preliminary decision.
 - Our decision on the customer service incentive rate and performance target are set out in section 11.1 of attachment 11 of this preliminary decision.
 - The revenue at risk for United Energy will be capped at ± 5.0 per cent. Within this there will be a cap of ± 0.5 per cent on the telephone answering parameter for performance.

Note: The meaning for year "t" under the price control formula for this determination is different to that in Appendix C of STPIS. Year "t+1" in Appendix C of STPIS is equivalent to year "t" in the price control formula of this decision.

- In accordance with Division 4 of Part 3 to the National Electricity (Victoria) Act 2005 and the NER, the AER will make a final adjustment to close out the ESCV's s-factor scheme for the 2006–10 regulatory control period by including the adjustment amount shown in attachment 11 in the 'revenue adjustments' row of the post-tax revenue model.
- The AER has determined to continue Part A of the Demand Management Innovation Scheme (DMIS) for United

Constituent decision

Energy in the 2016–20 regulatory control period (that is, the DMIA component). DMIS is discussed in attachment 12 of the preliminary decision.

In accordance with clause 6.12.1(10) the AER's decision is that all appropriate amounts, values and inputs are as set out in this determination including attachments.

In accordance with clause 6.12.1(11) the AER's decision on the form of control mechanisms (including the X factor) for standard control services is a revenue cap. The revenue cap for United Energy for any given regulatory year is the total annual revenue calculated using the formula in attachment 14 plus any adjustment required to move the DUoS under/over account to zero. This is discussed in attachment 14 of the preliminary decision.

In accordance with clause 6.12.1(12) the AER's decision on the form of the control mechanism for alternative control services is to apply price caps for all services other than metering, for which a revenue cap will apply. This is discussed in attachment 16 of the preliminary decision.

In accordance with clause 6.12.1(13), to demonstrate compliance with its distribution determination, the AER's decision is United Energy must maintain a DUoS unders and overs account. It must provide information on this account to us in its annual pricing proposal. This is discussed in attachment 14 in the preliminary decision.

In accordance with clause 6.12.1(14) the AER's decision on the additional pass through events that are to apply is to not accept the nominated pass through events as proposed by United Energy. The AER also substitutes its own definitions for the following events:

- insurance cap event
- insurer's credit risk event
- natural disaster event
- terrorism event
- retailer insolvency event.

In accordance with clause 6.12.1(15) the AER's decision is to vary United Energy's proposed negotiating framework. The negotiating framework, including our variations, that is to apply to United Energy is set out at attachment 17 of the preliminary decision.

In accordance with clause 6.12.1(16) the AER's decision is to apply the negotiated distribution services criteria published in May 2015 to United Energy. This is set out in attachment 17 of the preliminary decision.

In accordance with clause 6.12.1(17) the AER's decision on the procedures for assigning retail customers to tariff classes for United Energy is set out in attachment 14 of the preliminary decision.

In accordance with clause 6.12.1(18) the AER's decision on regulatory depreciation is that the forecast depreciation approach is to be used to establish the RAB at the commencement of United Energy's regulatory control period (1 January 2021). This is discussed in attachment 2 of the preliminary decision.

In accordance with clause 6.12.1(19) the AER's decision on how United Energy is to report to the AER on its recovery of designated pricing proposal charges is to set this out in its annual pricing proposal. The method to account for the under and over recovery of designated pricing proposal charges is discussed in attachment 14 of the preliminary decision.

In accordance with clause 6.12.1(20) the AER's decision is we require United Energy to maintain a jurisdictional scheme unders and overs account. It must provide information on this account to us in its annual pricing proposal as set out in attachment 14 of the preliminary decision.

In accordance with section 16C of the National Electricity (Victoria) Act 2005, the NEL, the NER and the Victorian F-Factor Scheme Order In Council 2011, we will apply the f-factor scheme based on an incentive rate of \$25,000 per fire start higher/lower than the f-factor target as set out in attachment 18 of the preliminary decision.

B List of Submissions

We received 29 submissions in response to United Energy's regulatory proposal as listed below:

	Submission from	Date received	Submission on
1	Cardinia Shire Council	01/07/2015	Public Lighting
2	CitiPower Powercor	13/07/2015	Regulatory Proposals
3	Citelum Group	24/06/2015	Public Lighting
4	City of Greater Dandenong	10/07/2015	Public Lighting
5	City of Casey	13/07/2015	Public Lighting
6	City of Greater Bendigo	13/07/2015	Public Lighting
7	City of Greater Geelong	13/07/2015	Public Lighting
8	City of Mooney Valley	07/07/2015	Public Lighting
9	Consumer Challenge Panel Sub-Panel 3	23/05/2015	Regulatory Proposals
10	Consumer Challenge Panel Sub-Panel 3	05/08/2015	Regulatory Proposals
11	Consumer Utilities Advocacy Centre	13/07/2015	Regulatory Proposals
12	DBP	13/07/2015	Regulatory Proposals
13	Department of Economic Development, Jobs, Transport and Resources (Victorian Government)	13/07/2015	Regulatory Proposals
14	East Gippsland Shire Council	13/07/2015	Public Lighting
15	Energy Retailers Association of Australia	13/07/2015	Regulatory Proposals
16	Ethnic Communities' Council of Victoria	26/06/2015	Regulatory Proposals
17	Glen Eira City Council	10/07/2015	Public Lighting
18	Gannawarra Shire Council	16/07/2015	Public Lighting
19	Hume City Council	13/07/2015	Public Lighting
20	Latrobe City Council	13/07/2015	Public Lighting
21	Indigo Shire Council	23/07/2015	Public Lighting
22	Municipal Association of Victoria	13/07/2015	Public Lighting
23	Origin Energy	13/07/2015	Regulatory Proposals
24	Murrindindi Shire Council	17/07/2015	Public Lighting
25	Vector Limited	13/07/2015	Regulatory Proposals
26	Victorian Energy Consumer and User Alliance	13/07/2015	Regulatory Proposals
27	VicRoads	13/07/2015	Public Lighting
28	Victorian Greenhouse Alliances	13/07/2015	Regulatory Proposals

	Submission from	Date received	Submission on
29	Yarra Ranges Council	13/07/2015	Public Lighting