Energex

Submission - Senate Inquiry into Electricity Network Companies

18 December 2014

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1 Introduction

Energex was invited by the Senate Environment and Communications References Committee (the Committee) to participate in the Committee's inquiry into electricity network companies. This submission has been prepared and provided to the Committee in response to this invitation and the Committee's terms of reference, which are contained at Appendix 1.

The electricity industry, including Energex, has been the subject of extensive policy and regulatory attention over recent years. Since 2010 more than 17 separate inquiries have been conducted into aspects of the industry. This has included among others, two energy white papers, a Productivity Commission review and a Senate Select Committee inquiry into electricity pricing. This level of scrutiny has played an important role in developing and improving regulation as well as educating the public and policy makers on the complex process used to regulate assets like electricity networks.

This submission is divided into 5 parts and seeks to provide the Committee with an understanding of the key elements of the extensive and highly consultative regulatory process which Energex participates in to set its key operating parameters.

The first part provides an overview of Energex as a company, it operations and the important role it plays supporting the people of South East Queensland.

The second part gives an overview of the regulatory environment in which Energex operates including some of the recent regulatory changes relevant to the Committee's inquiry. It goes on to consider the regulatory information requirements under the National Electricity Law and the determination process used by the Australian Energy Regulator.

Part three looks more closely at Energex's capital and operating expenditure forecasts including the certification process used to support the assumptions on which Energex makes these forecasts. This section also examines the nature of incentive based regulation.

The fourth part considers the concept of the 'benchmark efficient entity' which is a crucial element in the AER's regulatory approach. This section also deals with the way in which the rate of return for distribution networks is calculated including WACC and Gamma calculations. Finally this part of the submission explores the limited appeal rights available to network operators.

The final part considers revenue caps as they apply in the electricity industry, the purpose and contents of the annual pricing proposals and the rules which support the goal of efficient pricing within the regulatory framework.

Energex is subject to extensive regulatory oversight. This oversight is founded on a far-reaching statutory and rule based framework with which Energex is compelled to comply. Energex's assumptions, forecasts and projections are subject, at all stages in the process, to extensive public scrutiny. Energex welcomes the Committee's interest in these issues.

2 About Energex

Energex is a Queensland Government Owned Corporation that owns and manages a sophisticated energy distribution network which delivers network services and expertise to one of Australia's fastest growing communities.

Based in South East Queensland, Energex and its predecessors have been providing electricity to Queenslanders for more than 100 years. During this time it has transitioned from operating under the Brisbane City Council to become the South East Queensland Electricity Board (SEQEB) and in 1995 it became a Government Owned Corporation. It became Energex in 1997 to signify its entry into the emerging competitive national energy market.

At the core of the business is a substantial electricity distribution network, the expertise of over 3,000 employees and a drive to provide customers with energy solutions that are economically, socially and environmentally acceptable and sustainable.

This is underpinned by technological innovation and advanced management systems which drive efficiency, quality and safety. Many of these are nationally or internationally certified or benchmarked to international standards. Energex places sustainability and corporate responsibility high on its corporate agenda through contemporary environmental and social practices.

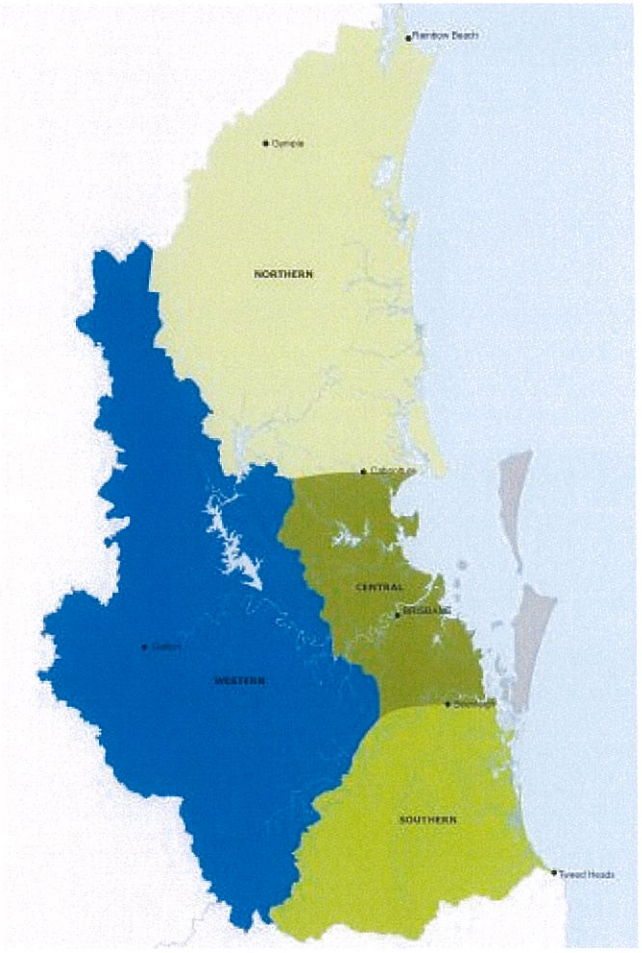
Energex has developed a strong reputation for its network asset management capabilities, including specialised engineering services, metering applications and energy solutions. By continually adapting the way it does business to keep pace with the evolving marketplace, Energex has kept at the forefront of the industry.

As a Government Owned Corporation, Energex is a public company limited by shares under the Corporations Act 2001. The State of Queensland is the owner of all shares in Energex. Energex's two shareholding ministers, namely the Minister for Energy and Water Supply and the Treasurer, hold their shares on behalf of the State of Queensland.

Energex provides distribution services to almost 1.4 million domestic and business customers and delivers electricity to a population base of around 3.2 million people. Energex's core network assets have a value of about $13 billion. Key network assets include in excess of 52,000km of overhead and underground electricity lines and cables, more than 280 large district and smaller suburban substations and some 48,000 transformers.

The bulk of electricity distributed by Energex to its customers is supplied from the National Electricity Market (NEM) by Powerlink at transmission connection points. However Energex also enables connection of distributed generation, such as solar PV, and operates distributed generation to support the network during normal and contingency periods. Energex's network is characterised by:

- connection to Powerlink's high voltage transmission network at 28 connection points
- high density/central business district (CBD) areas such as the Brisbane CBD, Ipswich, and Gold Coast and Sunshine Coast city areas which are typically supplied by 110/11 kV, 110/33 kV, 132/33 kV or 132/11 kV substationshttps://www.energex.com.au/__data/assets/image/0017/35405/varieties/large.jpg
- urban/short rural feeder areas where 110/33 kV or 132/33 kV bulk supply substations are typically used to supply 33/11 kV zone substations
- inner suburban areas close to the CBD which have extensive older, meshed 33 kV underground cable networks that supply zone substations
- outer suburbs and growth areas to the north, south and west of Brisbane which are supplied via modern indoor substations of single modular design that enable further modules to be readily added
- new subdivisions in urban areas which are supplied by underground networks with padmount transformers
- one of the highest observed solar PV penetration rates worldwide with some 20 per cent of customers being connected to solar PV generation



3 The regulatory framework

This section provides an overview of:

- **the regulatory environment in which Energex operates**
- **recent regulatory changes relevant to the terms of reference**
- **regulatory information requirements under the National Electricity Law**
- **the powers of, and determination process applied by, the Australian Energy Regulator (AER)**

Summary:

- **Energex operates in a fast changing regulatory environment;**
- **The AER has significant information gathering powers and there are significant penalties for individuals and companies in providing false or misleading information;**
- **It is the AER, and not Energex, which ultimately determines the weighted average cost of capital (WACC) that will apply to Energex during a regulatory control period;**
- **Energex lodged its 2015-20 Regulatory Proposal on 31 October and this is currently open for public consultation and review by the AER; and**
- **It is the AER, and not Energex, which determines Energex's allowed revenue over each five year period.**

3.1 Energex's regulatory environment

Electricity distribution and transmission are highly regulated industries. This regulatory system has been developed and applied because of the size and monopoly nature of the assets required to operate electricity transmission and distribution networks. Set out in the National Electricity Law (NEL), the entire regulatory system is guided by the National Electricity Objective (NEO) which 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'

Under the Electricity Act 1994 (Qld) Energex holds a Distribution Authority for a defined area covering most parts of South East Queensland. Energex is the only Distribution Network Service Provider (DNSP) for the areas in which it operates under the National Electricity Rules (Rules).

The AER is responsible for the economic regulation of electricity distribution services in the NEM. The AER's extensive functions and powers are set out in the NEL and Rules. Some of the AER's key powers, relevant to the Committee's inquiry, are set out as part of this submission.

Up until 2010, Queensland distribution networks were subject to economic regulation by the Queensland jurisdictional regulator, the Queensland Competition Authority (QCA). The QCA released its final distribution determination in April 2005 to cover the period 1 July 2005 to 30 June 2010.

The AER assumed responsibility for the economic regulation of Queensland distribution assets on 1 July 2010. In accordance with the Rules, the AER made its first determination on the Energex network covering the regulatory period 1 July 2010 to 30 June 2015.

Since the AER has taken over the regulation of the distribution networks in Queensland there have been significant changes to the way in which Energex's rate of return, incorporating the Weighted Average Cost of Capital (WACC) is established.

The Rules previously prescribed the actual model that was required to be used to determine the WACC, and provided for key elements of the WACC for a Distribution Determination to be determined in advance in a 'Statement of regulatory intent' (SORI) that was issued at least every five years by the AER in accordance with the Rules. This process offered a rule based approach to the establishment of rates of return and governed the Energex regulatory proposal for the period 1 July 2010 to 30 June 2015.

During the current regulatory period the requirement for the AER to issue SORIs was removed as part of the Australian Energy Market Commission's (AEMC) economic regulation suite of Rule changes, and the AER developed (as it was required to do so by those Rule changes) a Rate of Return Guideline.

Both the current version of the Rules and the Rate of Return Guideline require the AER to estimate the returns on equity and debt such that they are commensurate with the efficient financing costs of a benchmark efficient entity with a similar degree of risk as that faced by the relevant network business. This approach does not entitle the AER to disregard the actual costs likely to be incurred by the network business in investing in and operating the network, but makes it clear that the AER is to determine the appropriate rate of return for a network business by reference to what a benchmark efficient entity would require in the circumstances of the network business. This approach provides greater flexibility to the AER in the determination of rates of return for network businesses. Determining the rate of return by reference to a benchmark efficient entity also means that the nature and type of ownership structure under which an individual network business operates (i.e. whether it is Government -owned or privately-owned) should be irrelevant. In other words, as with other elements of the Distribution Determination that apply to Energex, the Rules set out the principles that govern the determination of the WACC and (while Energex puts forward its view as to what the WACC should be in accordance with the Rules) it is the AER, and not Energex, which ultimately determines the WACC.

The process for making Distribution Determinations is also regulated by the Rules and Energex, as a DNSP, is required to comply with those rules. In particular, Chapter 6 of the Rules sets out the regulatory framework which applies to the development, and provision to the AER, of regulatory documents such as the Framework and Approach (F&A) paper, incentive scheme models and the Regulatory Proposal. These rules also regulate the format, content and timing of the Regulatory Proposal. The AER operates 'propose and respond'

style regulation in the development of the regulatory framework. This gives all stakeholders an opportunity to be engaged in the development and delivery of a regulatory framework that can best deliver on the NEO. This consultation occurs through an open publicly visible process, and a large range of stakeholders make submissions to the AER in relation to these regulatory documents. These include:

- other energy market participants such as retailers, transmission networks and generators;
- state and federal government departments; and
- state based regulators.

3.2 AER's information gathering powers

The AER has extensive powers contained in both the NEL and the Rules to require Energex to provide information and to direct Energex as to the format and content of that information. To conduct its economic regulatory functions, the AER requires network businesses to collect and maintain information in a manner approved by the AER and to submit it annually or as part of the regulatory reset process. This information is typically collected by the AER by issuing:

- Regulatory Information Notices (Section 28D of the NEL); and
- Regulatory Information Orders (Section 28C of the NEL),

as well as through periodic or ad hoc information requests.

In response to these RINs and requests, Energex submits extensive financial and non-financial information to the AER. Regulatory information provided by Energex to the AER, including Energex's Regulatory Proposal, is available on the Energex website https://www.energex.com.au.

The Board and/or the Chief Executive Officer are typically required to certify the accuracy and quality of the information provided to the AER. All information provided to the AER must be accurate and any person providing information to the AER which they know to be false or misleading can be subject to a monetary penalty. (Section 28R of the NEL)

In delivering its Regulatory Proposal and other regulatory information documents Energex is entitled, in accordance with the Rules, to seek confidentiality over parts of those documents. However, the AER has made it clear that it will strictly apply the confidentiality rules with the intention of providing the community and market participants with the maximum possible information. The greater scrutiny that can be applied where information is publicly available also increases the weight that the AER is able to ascribe to such information.

3.3 Energex regulatory proposal

A regulatory determination for a network business generally applies for a five year period. The initial stage of the regulatory determination process involves the AER issuing a F&A paper that sets out the AER's decisions in relation to the form of control it will apply to the network, e.g. a revenue cap, a price cap or a weighted average price cap. The F&A paper also includes the AER's proposed approach in relation to the classification of services and the application of incentive schemes.

The next stage is the submission of a Regulatory Proposal by Energex. The Rules require that a Regulatory Proposal contain certain information and elements, including:

- a classification proposal showing how the distribution services to be provided by Energex should be classified;
- for direct control services classified under the proposal as standard control services - a building block proposal;
- for direct control services classified under the proposal as alternative control services - a demonstration of the application of the control mechanism;
- for direct control services - indicative prices for each year of the regulatory control period;
- Energex's proposed connection policy; and
- an identification of the parts of the proposal that Energex claims to be confidential.

The classification of distribution services is important to electricity customers because it determines the level of economic regulation that should apply to those services. Energex provides a range of distribution services that are classified, by the AER, in different ways depending on the level of competition in their delivery. The classification also determines whether Energex is able to recover the costs of providing the service from all customers (standard control services) or must only charge the customer/s benefiting directly from the service (alternative control service).

As part of its Regulatory Proposal Energex is required to estimate the total revenue it requires to provide network distribution services to its customers. This revenue figure is developed, in part, through the development of a 'building block proposal' pursuant to the Rules. The elements of the building block proposal include:

- forecasts for capital expenditure;
- forecasts for operating expenditure;
- a calculation of the WACC; and
- An estimated cost of corporate income tax, which includes a value of 'gamma' (the value of imputation credits).

Energex has recently submitted its Regulatory Proposal for the regulatory period 1 July 2015 -30 June 2020 and this proposal, like all other regulatory documents submitted to the AER by Energex, is publicly available on the Energex website. Energex's Regulatory Proposal provides a detailed explanation of each of the elements of Energex's building block proposal. As with other regulatory information submitted by Energex to the AER, Energex's Board and Chief Executive Officer have certified the accuracy and quality of the information provided to the AER.

Energex has at all times complied with the NEL, the Rules and the directions of the AER as to the timing, content and format of the regulatory information it has provided.

3.4 The AER determination process

Following the submission of Energex's Regulatory Proposal, a further extensive process of public consultation occurs in relation to the development of the AER's final Distribution Determination. This process provides a further opportunity for other energy market participants and members of the general public to scrutinise Energex's proposals and to influence the AER's ultimate determination as to Energex's future allowed revenue. The steps in the determination process include:

- a public invitation for submissions on Energex's Regulatory Proposal;
- requests for further information from Energex;
- the release of consultation documents on certain aspects of Energex's Regulatory Proposal;
- a draft Distribution Determination by the AER;
- a public invitation for submissions on the draft Distribution Determination; and
- a final Distribution Determination.

It can therefore be seen that the information provided by Energex as the basis for future regulatory determinations is the subject of widespread and extensive public comment and feedback as well as detailed regulatory scrutiny. Importantly it is the AER, and not Energex, which determines Energex's future allowed revenue.

4 Energex's capital and operating expenditure forecasts

This section provides an overview of:

- **Energex's capital and operating expenditure forecasts**
- **Certification process for the assumptions that underlie these forecasts**
- **Nature of incentive based regulation**

Summary:

- **Energex has provided its capital and operating forecasts to the AER as part of its Regulatory Proposal**
- **The AER will thoroughly assess these forecasts in determining Energex's allowable revenue.**
- **While significant attention has been placed on overall falling system energy use, peak demand remains a focus for electricity distribution businesses and Energex has recorded two system peak demand records in 2014**
- **The regulatory regime includes incentives for distribution network service providers to spend efficiently.**

4.1 Capital and operating expenditure forecasts

The Energex Regulatory Proposal submitted to the AER for each five year regulatory period provides details of Energex's proposed capital and operating expenditure programs and the revenue required to enable Energex to efficiently deliver its legislated service obligations. It also articulates how Energex's Network and Demand Management Strategies address the external drivers and regulatory obligations Energex faces in the delivery of services to customers.

Under the Rules, Energex is required to notify the AER, prior to submitting its Regulatory Proposal, of the methodology which it proposes to use to prepare its capital and operating expenditure forecasts. In addition, at the same time as it submits its Regulatory Proposal, Energex is required to provide the AER with the information set out in the AER's expenditure forecast assessment guidelines. These requirements are designed to enable the AER to thoroughly assess Energex's forecast capital and operating expenditure so as to ensure that the forecast expenditure is efficient, prudent and realistic to provide the services that are required to meet forecast demand, taking into account the obligations that Energex has to deliver a reliable, safe and secure supply of electricity.

Energex's Regulatory Proposal is required to identify the key assumptions that underlie the capital and operating expenditure forecasts which are included in it, and the directors of Energex must certify the reasonableness of these assumptions. In order to enable the directors to make this certification, Energex has established comprehensive governance arrangements that require Energex management to certify the accuracy and reasonableness of the information on which those forecasts are based. Energex, through its Board and

management, takes its regulatory obligations very seriously and has at all times complied with all applicable regulatory requirements, including the requirement for director certifications.

Energex's allowed capital and operating expenditure for a regulatory period is determined on the basis of forecast expenditure, but that forecast expenditure must first be approved by the AER. For these purposes, the AER conducts its own rigorous assessment of the reasonableness of Energex's forecast capital and operating expenditure.

One of the key information inputs that Energex is required to provide to the AER is forecasts and data on projected network utilisation. Utilisation refers to the way in which overall demand for electricity is spread across Energex's network. Understanding the level of utilisation is essential to ensure Energex can play its role in meeting the NEO and the customer service standards imposed on Energex by the Rules and Queensland legislation. In areas where the network is fully utilised even small increases in demand can overload network infrastructure, and this can directly affect reliability for customers.

Forecasting future utilisation patterns provides an essential guide to the type of network infrastructure required to deliver reliable services to customers.

In order to properly meet the NEO and to plan for the efficient use of capital, Energex provides to the AER, and makes publicly available, forecasts about the growth in utilisation across the network for the forthcoming regulatory period.

In addition to forecasting network utilisation, Energex is required to provide estimates in relation to changes in electricity demand. Total demand for electricity, including peak demand, is a key foundation on which Energex makes decisions to invest in the network.

One of the most challenging elements of meeting the NEO is to ensure that the Energex network is capable of operating effectively when our customers want it the most. This is usually at times of peak demand. While significant attention has been placed on overall falling system energy use, peak demand remains a focus for electricity distribution businesses. Despite record and growing levels of solar PV penetration, changing energy use patterns and improved energy efficiency standards, Energex has recorded two new system peak demands during the 2014 calendar year – a new record Saturday peak on January 4 and a new Sunday peak on November 16. This highlights the continued underlying challenge of meeting energy demands in periods of peak use.

4.2 Incentive based regulation

Electricity network businesses are regulated under incentive based regulation. According to the AER, incentive based regulation is:

> "a form of regulation where we forecast and lock in the total opex and capex a business will require to meet its pre-defined service and reliability targets at the start of each regulatory period. Businesses are then given financial rewards where they improve their efficiency and spend less than the forecast during the regulatory period." (Overview of the Better Regulation Reform Package pg. 5)

In order to ensure that Energex effectively manages its capital and operating expenditure the AER also applies a comparison between Energex and a 'benchmark efficient entity', which allows the AER to critically scrutinise Energex's proposed expenditure from the perspective of a similar, efficiently managed electricity distribution network business.

There are two incentive schemes operated by the AER which are designed to reward efficient capital and operating expenditure.

The Capital Expenditure Sharing Scheme (CESS) provides financial rewards for DNSPs that spend less than their capex allowance and penalises DNSPs that spend more than their capex allowance. Energex has supported the application of the CESS in the forthcoming regulatory control period. According to the AER the CESS:

> "encourages efficient capex investment decisions by providing a business with the same reward for a capex efficiency saving and same penalty for a capex efficiency loss regardless of which year they make the saving or loss in. Put another way, the CESS creates a constant incentive for capex. The CESS rewards a business if it made a capex efficiency saving, and penalises it if it made a capex efficiency loss. (Overview of the Better Regulation Reform Package pg. 8)

The Efficiency Benefit Sharing Scheme (EBSS) is a similar incentive scheme that is applied to operating expenditure. It provides a continuous incentive for a DNSP to drive efficiencies in its opex through positive and negative carryovers to reward or penalise efficiency gains (opex underspend) and losses (opex overspend) respectively. The EBSS that applied to Energex in the current regulatory control period is version 1 published in June 2008. Energex has supported the application of the EBSS (version 2) through the next regulatory control period with some minor adjustments. Further information in relation to Energex's position in relation to the EBSS is set out in Energex's Regulatory Proposal.

5 WACC and Gamma

This section provides an overview of:

- **The concept of a benchmark efficient entity**
- **Rate of return for DNSPs**
- **WACC and Gamma calculations**
- **the limited appeal rights for network businesses**

Summary:

- **The regulatory regime includes incentives for distribution network service providers to spend efficiently.**
- **The AER is required to set the rate of return that a network business is permitted to earn. It seeks to do this by reference to the concept of a 'benchmark efficient entity'.**
- **At no stage does Energex, or any other DNSP, set a WACC for itself.**
- **While Energex proposes a WACC in its Regulatory Proposal, the ultimate determination of the WACC that is to apply to Energex will always be made by the AER in accordance with the Rules.**

5.1 What is a benchmark efficient entity

Electricity distribution networks are unusually capital intensive businesses. Network businesses build long-lived assets with working lives that last decades. The full cost of these assets is recovered gradually from network charges over many years. Network revenue is regulated to prevent any monopoly pricing and inefficiency arising from that and to mitigate the impact on customers of large-scale capital investments necessary to ensure reliability and security of supply and to avoid price shocks.

The AER is required to set the rate of return that a network business is permitted to earn. It seeks to do this by reference to the concept of a 'benchmark efficient entity'. In this regard, the Rules set this as a clear objective for setting the rate of return. Rule 6.5.2 (c) provides:

> "The allowed rate of return objective is that the rate of return for a Distribution Network Service Provider is to be commensurate with the efficient financing costs of a benchmark efficient entity with a similar degree of risk as that which applies to the Distribution Network Service Provider in respect of the provision of standard control services…."

The benchmark efficient entity is a regulatory construct built by the AER through:

- econometric modelling;
- the application of knowledge gained through previous regulatory determinations; and
- the exercise of regulatory judgement.

In Energex's case, a benchmark efficient entity is an entity which holds assets similar to those held by Energex and is performing to a benchmark standard. In setting the rate of return, the benchmarking process does not consider the ownership structure of Energex and, as such, the government- owned nature of the Energex network is irrelevant to the regulatory assessment of the appropriate rate of return for Energex.

5.2 Rate of return for DNSPs

As part of the five yearly regulatory determination process Energex is required, in accordance with the Rules, to propose a rate of return that meets the objective referred to above. The AER, pursuant to the Rules, publishes extensive guidelines and requirements for the calculation of the rate of return. The Rules require the AER to develop these guidelines and to specify within them:

- the methodologies the AER proposes to use to estimate the allowed rate of return (derived from the expected return on equity and the expected return on debt);
- how these methodologies will result in a return on equity and return on debt which is consistent with the allowed rate of return objective; and
- the method the AER proposes to use to estimate the value of imputation tax credits which is used to establish a benchmark corporate income tax allowance.

As such, the Rules confer on the AER extensive discretion in relation to the determination of a network business' allowed rate of return. These guidelines have been the subject of extensive public consultation and can be found at http://www.aer.gov.au/node/18859.

If any DNSP wishes to depart from the guidelines in calculating its rate of return, it is required to set out in detail the reasons for the departure, and any such departure will be the subject of extensive public consultation.

5.3 WACC and Gamma

The Weighted Average Cost of Capital (WACC) is a key equation on which the rate of return is based and forms a key element in the building block proposal submitted by a DNSP to the AER. It is expressed as a percentage and seeks to take account of the return that should be allowed to a regulated business on:

- the cost of debt and debt raising; and
- the equity held by the business.

The WACC formula, which is set out in the AER's Rate of Return Guideline, is:

$$WACC_{vanilla} = r_e \frac{E}{V} + r_d \frac{D}{V}$$

where:

r_e is the required return on equity

r_d is the required return on debt

$\frac{E}{V}$ is the proportion of equity in total financing (comprising equity and debt)

$\frac{D}{V}$ is the proportion of debt in total financing.

Detailed information about the way in which Energex applies and populates the WACC formula is available in each of Energex's regulatory proposals.

At no stage does Energex, or any other DNSP, set a WACC for itself. While Energex proposes a WACC in its Regulatory Proposal, the ultimate determination of the WACC that is to apply to Energex will always be made by the AER in accordance with the Rules.

Gamma is defined in the Rules as 'the value of imputation credits' and is a component of the estimated cost of corporate income tax (one of the building blocks used to determine Energex's allowed revenue).

Energex Regulatory Proposal contains a detailed examination of the calculation and estimation of gamma. The AER will respond to these submissions as part of the draft and final determination process.

5.4 Limited appeal rights

If a DNSP disagrees with a decision of the AER in its Distribution Determination, the DNSP only has the limited appeal rights which are set out in the NEL. A network provider may generally only appeal such a decision where it they can show that:

- the AER made an error of fact in its findings of facts, and that error of fact was material to the making of the decision;
- the AER made more than one error of fact in its findings of facts, and that those errors of fact, in combination, were material to the making of the decision;
- the exercise of the AER's discretion was incorrect, having regard to all the circumstances; and/or
- the AER's decision was unreasonable, having regard to all the circumstances,

and that addressing these matters would be likely to result in a Distribution Determination that is materially preferable to that made by the AER in making a contribution to the achievement of the NEO. (Sections 71C and 71P of the NEL)

These limited appeal rights ensure that the AER's decision will only be overturned in favour of an alternative decision that results in a Distribution Determination that makes a materially better contribution to the achievement of the NEO.

6 Revenue cap and annual pricing proposal process

This section provides an overview of:

- **Revenue Caps;**
- **the annual pricing proposal**
- **the rules for efficient pricing**

Summary:

- **Energex's revenues are subject to a Revenue Cap. A Revenue Cap ensures that, over time, the DNSP can only recover the amount which is allowed by the AER.**
- **Energex must comply with the pricing principles under the Rules.**
- **Energex has additional pricing objectives it takes into account when it is formulating tariffs – including simplicity and no cross subsidisation – which have the aim of ensuring efficient pricing.**

6.1 Revenue caps

The AER has operated a number of models to regulate the returns that network assets can generate.

In the past the AER has used 'price caps' or 'weighted average price caps' to regulate the price or prices that a network provider can charge for certain services. In these circumstances the accuracy of forecast demand can have a significant impact. If the forecast demand is lower than actual demand, then the DNSP will recover less revenue than it requires to cover its costs. If the forecast demand is higher than actual demand, then the DNSP will recover more revenue than it requires to cover its costs.

The other, and preferred, regulatory model employed by the AER is to impose a revenue cap on a network business. The AER has used a revenue cap for each of the regulatory control periods in which it has made a Distribution Determination for Energex.

A revenue cap allows the AER to set, for the regulatory control period, a total amount of revenue that is based on:

- the building block proposal approved by the AER;
- the application of the AER's incentive schemes; and
- the cost incurred by a benchmark efficient entity as determined by the AER.

This gives the AER a revenue figure for the full five year period. This figure is reduced to a yearly quantum and applied to cap the revenue that can be generated by the network during that period. Where actual energy usage exceeds forecast energy usage, and the network

business over-recovers from customers for a year, then the DNSP is required to adjust its pricing in the following year to return the over-recovered revenue to customers. This process is managed through the annual pricing proposal.

6.2 Annual pricing proposal

In accordance with clause 6.18 of the Rules, Energex is required to submit a pricing proposal for each year in a regulatory control period. This proposal contains the methodology and principles Energex has followed during tariff development to recover its allowed revenue. It outlines the:

- tariff classes;
- proposed network tariffs;
- charging parameters for Standard Control Services (SCS);
- charging parameters for Alternative Control Services (ACS); and
- expected revenue for the year.

When setting SCS tariffs, Energex's objective is to ensure its allowed revenue, as set by the AER, is recovered from customers in a manner consistent with prescribed pricing principles, as outlined in clause 6.18.5 of the Rules. These pricing principles relate to the amount of revenue that may be recovered by specific tariffs and the costs by reference to which tariffs may be structured. Detailed information about Energex's application of and compliance with the pricing principles is set out in its annual pricing proposals which are available on the Energex website.

In addition to the pricing principles established under the Rules, Energex applies a number of pricing objectives in the formulation of tariffs. These pricing objectives are intended to complement the pricing principles and provide clarity when formulating tariffs. These principles are:

- no cross-subsidisation - to the maximum extent possible, for a network user or group of users, there should be no cross subsidies between each SCS tariff class or between SCS and ACS tariffs;
- network efficiency - to the maximum extent possible, tariffs should incorporate appropriate signals to inform network users of their impact on existing and future network capacity and costs, and to encourage demand management;
- equity - to the maximum extent possible, tariffs should be equitable for customers and should reflect the users' utilisation of the existing network and the use of specific dedicated assets;
- price stability - tariffs should not widely fluctuate over time as this inhibits customers in making informed investment decisions;

- cost-reflectivity - as far as possible, tariffs should reflect the actual cost of service provision to customers;
- simplicity - tariffs should be simple and straightforward to apply, based on a well-defined and clearly explained methodology and be readily understood by customers.

Energex's annual pricing proposals are subject to approval by the AER. Relevantly to the terms of reference, pursuant to clause 6.18.8 of the Rules, the AER is only required to approve a pricing proposal where "all forecasts associated with the proposal are reasonable".

6.3 Efficient pricing

Through a combination of the revenue cap model, the annual pricing proposals and Energex tariff principles the AER and Energex are able to ensure that efficient pricing is achieved. This framework allows Energex to recover its entitled revenue over the regulatory control period without exposing customers to significant price shocks. It also ensures Energex complies with its obligations under the Rules.

7 Conclusion

This submission has responded to the terms of reference issued by the Senate Environment and Communications References Committee to support its current inquiry into Electricity Network Companies.

The submission provided an overview of the size, nature and geographic footprint of Energex's business.

It explored the regulatory environment in which Energex operates including recent regulatory changes, applicable regulatory information requirements and the determination process.

The submission then considered the capital and operating expenditure forecasts used by Energex as part of the regulatory process and the nature of incentive based regulation.

It then looked at the concept of the 'benchmark efficient entity', the way in which the rate of return for distribution networks is calculated and the limited appeal rights available to network operators.

Finally the submission examined revenue caps as they apply in the electricity industry, the purpose and content of the annual pricing proposals and the rules which support the goal of efficient pricing within the framework.

The electricity industry, including Energex, has been the subject of extensive policy and regulatory attention over recent years. 17 separate enquiries have been conducted in the last 5 years including two energy white papers, a Productivity Commission review and a Senate Select Committee inquiry into electricity pricing. This level of scrutiny has played an important role in developing and improving regulation as well as educating the public and policy makers on the complex process used to regulate assets like electricity networks.

8 Inquiry into electricity network companies

On 2 October 2014, the Senate agreed that the following matter be referred to the Environment and Communications References Committee for inquiry and report by the first sitting day in March 2015:

(a) the manner in which electricity network companies have presented information to the Australian Energy Regulator (AER), and whether they have misled the AER in relation to:

(i) their weighted average costs of capital,

(ii) the necessity for the infrastructure proposed,

(iii) their regulated asset valuations, and

(iv) actual interests rates claimed against actual borrowing costs;

(b) how electricity companies, including state government owned electricity companies such as Energex, have calculated the weighted average cost of capital and how this measure has changed over time;

(c) where anomalies are identified in relation to price structuring or allegations of price rorting by electricity companies, such as Energex, are raised, the possibility of these matters being investigated by a national independent body created by the Federal Government with the required powers and reach to investigate and prosecute, where necessary;

(d) to ascertain whether state-owned network companies have prioritised their focus on future privatisation proceeds above the interests of energy users;

(e) whether the arrangements for the regulation of the cost of capital are delivering allowed rates of return above the actual cost of capital;

(f) whether the AER has actively pursued lowest-cost outcomes for energy consumers;

(g) whether network monopolies should have the right to recover historic overspending that has delivered unwanted and unused infrastructure;

(h) how the regulatory structure and system could be improved;

(i) whether the arrangements for the connection and pricing of network services is discriminating against households and businesses that are involved in their own electricity production;

(j) whether the current system provides adequate oversight of electricity network companies; and

(k) any other related matter.