
2014-2019 NETWORK PRICE DETERMINATION

FRAMEWORK AND APPROACH DECISION PAPER

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38 Cavenagh Street DARWIN NT 0800
Postal Address GPO Box 915 DARWIN NT 0801
Email: utilities.commission@nt.gov.au
Website: www.utilicom.nt.gov.au

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Inquiries

Any questions regarding this report should be directed in the first instance to the Executive Officer, Utilities Commission at any of the following:

Executive Officer
Utilities Commission
GPO Box 915
DARWIN NT 0801

Telephone: 08 8999 5480

Fax: 08 8999 6262

Email: utilities.commission@nt.gov.au

Glossary of terms

Term	Definition
AEMC	Australian Energy Market Commission
AER	Australian Energy Regulator
AEMO	Australian Energy Market Operator
COAG	Council of Australian Governments
Commission	Utilities Commission of the Northern Territory established in April 2000 under the <i>Utilities Commission Act</i>
CPI	Consumer Price Index
D-Factor	A demand management incentive which provides for recovery of forgone revenue as a result of successful approved demand management initiatives operated through the network revenue or price regulation framework
DKTL	Darwin-Katherine Transmission Line
DMIS	Demand Management Incentive Scheme
DMIA	Demand Management Incentive Allowance
DNBP	Distribution network service provider
DORC	Depreciated Optimised Replacement Cost being the replacement cost of the existing fixed system assets with modern equivalent assets, depreciated by a straight-line depreciation methodology according to the age of the existing asset relative to the expected total life of the existing asset
EBSS	Efficiency Benefits Sharing Scheme
ERM Retail	ERM Power Retail Pty Ltd
ESS framework	Electricity standards of service framework
ESS Code	Electricity Standards of Service Code
FRC	Full Retail Contestability
FVC	Fair Value Curve
GSL	Guaranteed service level
NEL	National Electricity Law
NEM	National Electricity Market

Term	Definition
NER	National Electricity Rules ¹
NT Access Code	Electricity Networks (Third Party Access) Code, which is a schedule to the <i>Electricity Networks (Third Party Access) Act</i>
ODV	Optimised Deprival Value, where deprival value is generally defined as being the lesser of an asset's depreciated optimised replacement cost (DORC) or the asset's recoverable value (the value that the company could create by using the asset within the business or by selling it)
PTRM	Post-tax revenue model
PWC	Power and Water Corporation
PWC Generation	The generation business division of PWC
PWC Networks	The networks business division of PWC
PWC Retail	The retail business division of PWC
QEnergy	QEnergy Limited
RAB	Regulatory Asset Base
Regulatory bargain	The optimum balance between price and service levels
Regulatory control period	The period between major price reviews during which time the methodology used in setting prices is held constant
RFM	Roll Forward model
RIN	Regulatory Information Notice, issued under the relevant regulator's powers to request information, sets out the detailed information that is required to be submitted by the regulated entity
RIT-D	Regulatory investment test for distribution investments
RIT-T	Regulatory investment test for transmission investments
SCER	Standing Council on Energy and Resources (replaced the Ministerial Council on Energy (MCE) in late 2011)
S-Factor	A financial incentive or penalty for network performance against service targets, imposed through the network revenue or price regulation framework
STPIS	Service Target Performance Incentive Scheme
Tariff basket	Weighted average of network access prices

¹ The version of the National Electricity Rules used by the Commission for the purposes of this Consultation Paper is the National Electricity Rules Version 49 which commenced from 5 April 2012.

Term	Definition
TFP	Total Factor Productivity based approaches rely on the estimation of industry wide productivity trends to determine the X-factor under a CPI-X approach as part of price cap incentive regulation
TNSP	Transmission network service provider
Tribunal	Australian Competition Tribunal
X-Factor	Amount by which a DNSP is allowed to escalate network access tariffs (on average) relative to the rate of consumer price inflation. The X-factor is often referred to as a productivity or efficiency factor
WACC	Weighted Average Cost of Capital – The rate of return for a [Network Service Provider] for a regulatory control period is the cost of capital as measured by the return required by investors in a commercial enterprise with a similar nature and degree of non-diversifiable risk as that faced by the [network] business of the provider ²

² Clauses 6.5.2(b) and 6A.6.2(b) NER.

CHAPTER 1

Framework and Approach Final Decision

- 1.1 Consistent with the requirements of clause 6.8.1 of the National Electricity Rules (NER), this framework and approach paper sets out the Commission's final decision on the form of control mechanism that will apply to standard control services during the 2014-19 regulatory control period.
- 1.2 In the National Electricity Market (NEM), a number of models and guidelines have been published to provide guidance on other factors and key parameters relevant to the determination process. In the absence of similar models and guidelines in the Territory, this paper sets out the Commission's preferred approach on these matters.
- 1.3 In line with the approach taken in the NEM, except for the form of regulation, the framework and approach paper is not otherwise binding on the Commission or network service provider.
- 1.4 However, the Commission's ultimate decision for the 2014 Network Price Determination will only depart from the preferred approach set out in this framework and approach paper where the Commission considers that, in light of the network service provider's regulatory proposal and any submissions received in the determination process, there are good reasons for departing from this approach.

Commission's Final Decision on Form of Regulation

- 1.5 The Commission will adopt, where practicable, the approach used by the Australian Energy Regulatory (AER) and on the application of those parts of Chapter 6 of the NER in relation to electricity network businesses in the NEM that are consistent with the NT Access Code.
- 1.6 The Commission acknowledges that resourcing constraints and economies of scale mean that full adoption of an approach consistent with the AER processes may not be practical.
- 1.7 For each aspect of the 2014 Network Price Determination the Commission, in consultation with PWC, will:
 - a) if a component of the approach used by the AER is not inconsistent with the requirements of the NT Access Code, consider whether the requirements for that component can currently be met by PWC Networks and if so, then apply it;
 - b) if a component of the approach used by the AER cannot currently be met by PWC Networks, make the minimum modifications necessary such that the modified requirements can be met by PWC Networks and apply the modified requirements; and
 - c) where a component of the approach used by the AER has been modified, document the reasons for departing from the NER and outline a framework and timeframe for putting in place capabilities to meet the requirement in future.

Scope of the Network Price Determination

- 1.8 The 2014 Network Price Determination will comprise a single building block of cost of service covering all network services (both transmission and distribution) provided by PWC Networks, applying where appropriate the provisions of Chapter 6 of the NER for the regulation of distribution networks.
- 1.9 A single cost of service determination will be made for all regulated networks, rather than separate determinations for each network.

Form of control mechanism

- 1.10 The Commission will apply a revenue cap form of control mechanism for standard control services.
- 1.11 Any variation between the maximum allowable revenue (MAR), as determined by the Commission, and the actual revenue collected by the network service provider is to be monitored in the under's and over's account. PWC must provide information on this account to the Commission as part of their annual pricing proposals.
- 1.12 If the under/over recoveries compared to the MAR for year t are:
- less than 2 per cent, the under/over recovery will be cleared within one regulatory year;
 - between 2 per cent and 5 per cent, the under/over recovery can be spread over two regulatory years; and
 - greater than 5 per cent, PWC must submit a plan to the Commission detailing how it proposes to clear the balance of the under's and over's account.
- 1.13 A notional interest charge, or an interest credit as appropriate, will be applied on the cumulative balance at the end of each financial year.
- 1.14 A side constraint will also be applied such that the weighted average price for each individual end-use customer for a particular year of the regulatory control period is not to exceed the corresponding weighted average price for that individual end-use customer for the preceding regulatory year by more than a permissible percentage.
- 1.15 The basis of the control mechanism will be of the prospective CPI minus X form.
- 1.16 The Commission will adopt a forward-looking building block approach using similar processes and practices as applied by the AER, but noting that full adoption of the AER processes may not be possible and variations may be required.
- 1.17 The Commission does not propose to apply any price control mechanism for services other than standard control services.

Commission's preferred approach on other matters

Classification of services

- 1.18 The NER requires that the AER, in classifying services, should not depart from a previous classification unless a different classification is clearly appropriate. The Commission intends to take a similar approach for the 2014 Network Price Determination.
- 1.19 The Commission intends to adopt the AER approach of classifying a class of activities, rather than the specific activities, allowing the specific definition or magnitude of services to change whilst maintaining the desired classification.

- 1.20 The Commission's preferred approach is that the service classifications that it adopted in the previous regulatory control period should continue, while further clarifying the service descriptions.

Key parameters

- 1.21 The Commission's preferred approach is to adopt a pre-tax revenue model for use by the network service provider in the 2014 Network Price Determination.
- 1.22 The Commission's preferred approach is to adopt a roll-forward model (RFM), largely modeled on the AER's published RFM and its accompanying handbook, for use by the network service provider in the 2014 Network Price Determination to roll forward the regulated asset base (RAB), which was set at \$350 million (excluding gifted assets) as at 1 July 2002 (in July 2002 dollars).³
- 1.23 The Commission's preferred approach is that it will determine the pre-tax nominal WACC based on the parameters established by the AER in its most recent distribution price determination being the 2012-17 distribution determination for Tasmania, except for the Debt Risk Premium (DRP). The DRP will be based on the updated methodology set out in the AER's draft determination for Tasmanian DNSPs for 2012-17 which estimates the DRP based on observed market data of a large representative sample of the benchmark Australian corporate bond with a 10 year term to maturity and BBB+ credit rating.
- 1.24 The Commission does not intend to consider reopening the initial regulatory asset base.
- 1.25 The Commission's preferred approach is to evaluate the total forecast capital expenditure included in PWC's regulatory proposal, against the requirements, where applicable, of clause 6.5.7 of the NER.
- 1.26 The Commission considers that the approach to calculating depreciation set out in clause 6.5.5 of the NER provides an appropriate model for PWC Networks' regulatory proposal.
- 1.27 The Commission considers the approach specified in clause 6.5.6 of the NER for forecasting operating expenditure to be appropriate for the 2014 Network Price Determination, and it should provide the network service provider an incentive to undertake a robust assessment of its network expenditure requirements.
- 1.28 The Commission's preferred approach is to require PWC Networks to set out the detailed principles, policies and methodology used by PWC Networks to allocate costs between the regulated network business and other PWC business and between the different categories of distribution services.
- 1.29 The Commission will consider if an allowance for GSL payments should be made when assessing the regulated revenue requirement of PWC Networks for the 2014 Network Price Determination.
- 1.30 The Commission considers that it would be premature for the 2014 Network Price Determination to include financial incentives and penalties for network performance through an S-Factor requirement in the price control. Similarly, the Commission

³ Utilities Commission, Networks Pricing: Asset Valuation Off-Ramp Final Decision Statement of Reasons, April 2005

believes it would premature to adopt a demand management incentive scheme or an efficiency benefits sharing scheme as specified in the NER.

Pricing principles and tariffs

- 1.31 The Commission proposes that PWC Networks should include in its regulatory proposal:
- a draft Network Pricing Principles Statement to apply to the setting of individual prices;
 - for the regulatory year commencing 1 July 2014, an indicative Network Pricing Proposal and Tariff Schedules consistent with all other elements of the regulatory proposal; and
 - a draft Capital Contributions Principles and Methods Statement to apply to the setting of capital contributions towards works that would not be commercially viable without that capital contribution.

CHAPTER 2

Introduction

- 2.1 The prices that consumers face for electricity are composed of a number of elements including generation, system operation and retail costs and the costs of transporting the energy through the transmission and distribution networks.
- 2.2 The 2014 Network Price Determination deals with the price component paid by network users for the conveyance of electricity through a prescribed electricity network in the Northern Territory are regulated under the Electricity Networks (Third Party Access) Code (the NT Access Code) which is a schedule to the *Electricity Networks (Third Party Access) Act*.
- 2.3 The Utilities Commission of the Northern Territory (the Commission) is the independent economic regulator responsible for regulating monopoly electricity services, licensing market participants and enforcing regulatory standards for market conduct and service performance.
- 2.4 The network service provider in all regulated networks in the Northern Territory is the networks business division (PWC Networks) of the Power and Water Corporation (PWC).
- 2.5 The next regulatory control period, the fourth regulatory control period, is the five-year period commencing 1 July 2014.
- 2.6 In the lead-up to the commencement of the fourth regulatory control period from 1 July 2014, the NT Access Code requires the Commission, in consultation with interested parties, to review the network price regulation methodology used in the previous regulatory control period, with a view to modifying the methodology as appropriate.
- 2.7 The NT Access Code requires the Commission to conduct its determination and approval processes in an open, transparent and competitively-neutral manner, including by consulting with network users, end-use customers, members of the public and all licensed electricity entities that may be affected, directly or indirectly, by the resultant prices.⁴
- 2.8 The process of establishing the network price regulation methodology to apply from 1 July 2014 and the implementation of that methodology is referred to as the '2014 Network Price Determination'.

⁴ Clause 62(2) NT Access Code

Consultation paper and submissions

- 2.9 The Commission initiated the 2014 Network Price Determination process in June 2012 by releasing a Consultation Paper on the possible options underlying the determination process, and providing the Commission's preliminary position with respect to various aspects of the framework and approach.
- 2.10 The Consultation Paper sought comment from interested parties on:
- adoption, where possible, of the approach to network price regulation in the NEM used by the AER as specified in the NER;
 - constraints affecting PWC Networks' capacity to provide information equivalent to that required under the NER;
 - classification of services to be regulated or excluded;
 - the form (or forms) of control mechanism(s) to be applied;
 - the key parameters underlying the form of control mechanism;
 - the Commission's approach to approving various aspects of PWC Networks' regulatory proposal including network pricing principles, tariff structures and capital contributions principles;
 - the Commission's approach to approving PWC Networks' 2014 pricing proposal and subsequent annual pricing proposals during the regulatory control period; and
 - any other relevant matters.
- 2.11 The Commission received three submissions from:
- Power and Water Corporation (PWC);
 - QEnergy Limited (QEnergy); and
 - Major Energy Users Group (NTMEU).
- 2.12 PWC also provided a supplementary submission in late October 2012. Copies of the submissions are available on the Commission's website.
- 2.13 All submissions were generally supportive of some degree of alignment with the NER and the approach taken by the AER, although each noted areas where it considered that full application of the NER might not be appropriate.
- 2.14 PWC and QEnergy advocated for a revenue cap form of price control, rather than continuation of the weighted average price cap, although for different reasons. All submissions supported the adoption of a forward-looking building blocks approach to determining the required revenue for the regulatory control period.
- 2.15 Both QEnergy and the NTMEU noted the – extreme importance of the Commission's scrutiny of capital and operating expenditure forecasts and the possibility of PWC Networks being allowed more revenue than is warranted.
- 2.16 PWC expressed some concern about the increased documentation, data provision and reporting requirements, given the limited resources available (internally and externally) to PWC.
- 2.17 Specific matters raised in submissions and the Commission's further analysis on the various aspects of the determination are discussed in detail in the relevant chapters later in this paper.

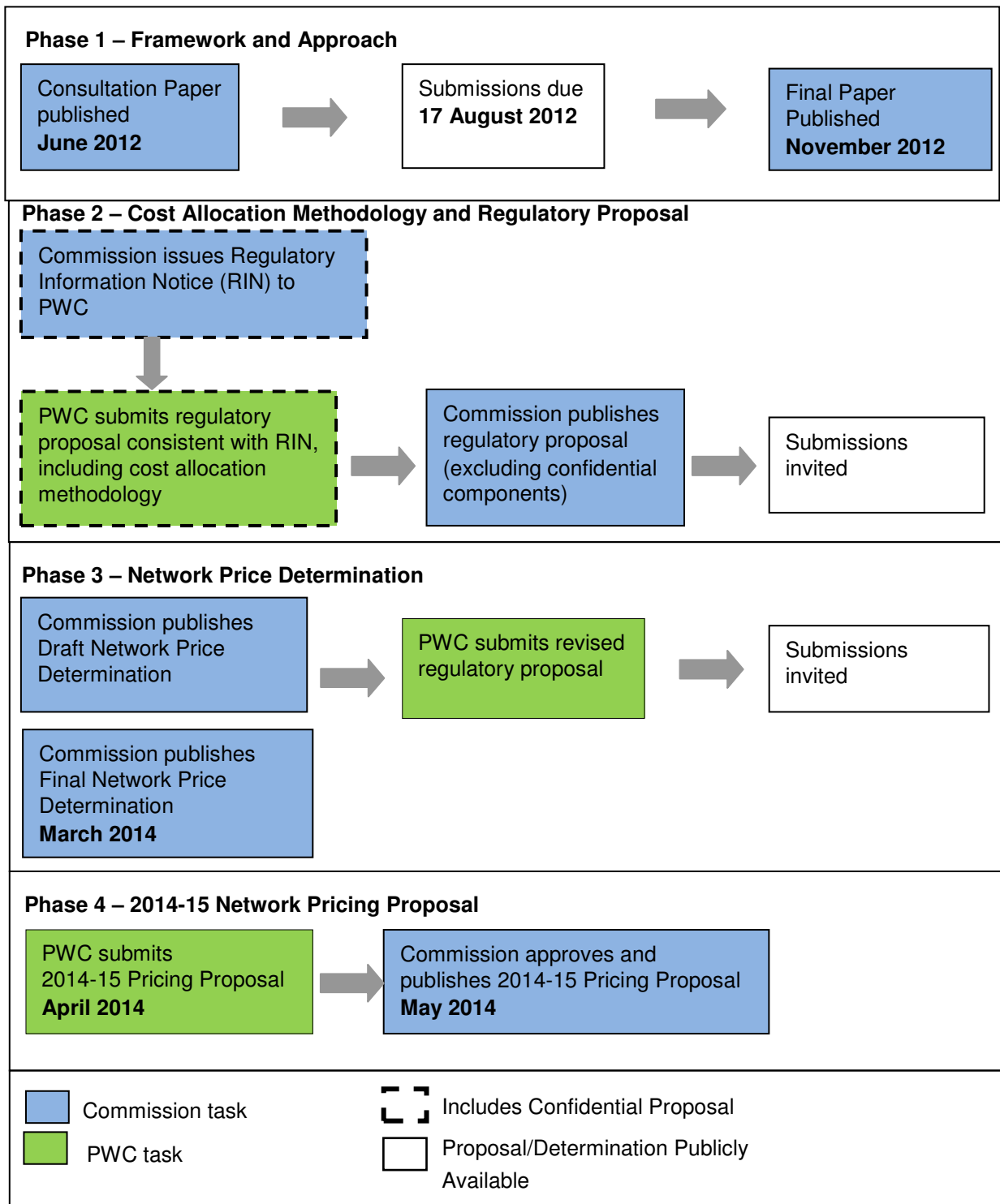
Purpose of this paper

- 2.18 This Paper sets out the Commission's Final Decision on the form of the control mechanism to be applied in the 2014 Network Price Determination and the Commission's reasons for deciding on the control mechanism.
- 2.19 It also sets out the Commission's preferred approach to:
- classification of services;
 - the application of a service target performance incentive scheme (STPIS);
 - the application of an efficiency benefits sharing scheme (EBSS); and
 - the application of a demand management incentive scheme (DMIS).
- 2.20 In the NEM, a number of models and guidelines have been published to provide guidance on other factors and key parameters relevant to the determination process. In the absence of similar models and guidelines in the Territory, this paper also sets out the Commission's preferred approach with respect to:
- revenue model (pre-tax or post-tax);
 - rolling forward the regulatory asset base;
 - the weighted average cost of capital;
 - calculating depreciation;
 - forecasting capital and operating expenditure;
 - cost allocations;
 - pricing principles and tariffs; and
 - capital contributions principles and methods.
- 2.21 In line with the approach taken in the NEM, except for the form of regulation the preferred approach on these matters set out in the framework and approach paper is not otherwise binding on the Commission or network service provider.
- 2.22 However, the Commission's ultimate decision for the 2014 Network Price Determination will only depart from the preferred approach set out in this framework and approach paper where the Commission considers that, in light of the network service provider's regulatory proposal and any submissions received in the determination process, there are good reasons for departing from this approach. The Commission will expect to see a fully supported argument explaining any proposed difference in approach, and detailing how that approach would satisfy the requirements of the National Electricity Law (NEL) and NER, where applicable, and the NT Access Code.

Timetable for review

2.23 The indicative timetable and procedure to be followed by the Commission in making the 2014 Network Price Determination is set out in Figure 1.1 below.

Figure 1.1: Proposed timetable



CHAPTER 3

Background

- 3.1 The electricity supply industry in the Northern Territory is regulated by the *Electricity Reform Act*, *Electricity Networks (Third Party Access) Act*, *Utilities Commission Act* and associated legislation. This statutory framework was introduced on 1 April 2000.
- 3.2 The statutory framework is primarily focused on regulating the activities of electricity industry participants and customers in the Darwin-Katherine, Alice Springs and Tennant Creek power systems – referred to as the market systems. Key elements of the statutory framework are:
 - third party access to the Darwin-Katherine, Alice Springs and Tennant Creek electricity networks;
 - staged introduction of retail contestability, with all customers becoming contestable from 1 April 2010; and
 - an independent economic regulator, the Utilities Commission, to regulate monopoly electricity services, license market participants and enforce regulatory standards for market conduct and service performance.
- 3.3 Electricity supply in regional and remote centres of the Territory is mainly managed by the Territory Government and the service provider through a contract for service model. Three mining townships (Nhulunbuy, Alyangula and Jabiru) are each provided with electricity by associated mining entities.
- 3.4 In the three market systems, PWC is the network service provider and responsible for system control.⁵ The Darwin-Katherine, Alice Springs and Tennant Creek networks are not interconnected, and are separated by long distances. As at 30 June 2012, the networks consisted of 766 kilometres (km) of high voltage transmission lines and 7 959 km of low voltage distribution lines, with about 77 700 customer connections.⁶
- 3.5 Network reliability and security are major management, and hence financial, challenges in the Territory because of the distance between the three networks, the radial construction of the networks, the high incidence of storm activity including lightning strikes, high winds and torrential rain in the Top End, and the behaviour of fruit bats roosting on power lines.

⁵ The System Controller has the function of monitoring and controlling the operation of the power system to ensure the system operates reliably, safely and securely in accordance with the System Control Technical Code. The System Control function is undertaken by the PWC System Control unit, subject to a System Control licence granted by the Commission.

⁶ Power and Water Corporation, 2011-12 Annual Report, page 64. PWC defines high voltage transmission lines as 33 kilovolt (kV) and above, and low voltage distribution lines as 22/11 kV and below.

Relationship with the NEM

- 3.6 The Territory and Western Australia are not part of the NEM, mainly due to the lack of any physical connection between the NEM, Territory or Western Australian electricity systems. Nonetheless, the Territory has undertaken similar reforms to those in the NEM jurisdictions to establish competitive electricity markets. In most respects, the existing legislative framework established in April 2000 replicated the competitive market model that was in place in the NEM jurisdictions at that time.
- 3.7 Unlike the situation in the Territory, which has changed little since 2000, the market and regulatory arrangements in the NEM have evolved substantially over the intervening period and are the product of the combined experience gained by participants in the day-to-day operation of the market
- 3.8 Following a review of energy market directions, Council of Australian Governments (COAG) entered into the Australian Energy Market Agreement (AEMA) in June 2004, establishing two new institutions to oversee Australia's energy market:
 - the AER as the national economic regulator and the body responsible for monitoring and enforcing national energy legislation; and
 - the Australian Energy Market Commission (AEMC) to undertake rule making and energy market development.
- 3.9 The AEMA also established a national legislative framework for electricity with the National Electricity Law (NEL) and National Electricity Rules (NER) commencing in 2005.
- 3.10 Although not part of the NEM, as signatories to the AEMA, the Territory and Western Australia are afforded the discretion to adopt the national legislative framework in the future, with the agreement of the Standing Council on Energy and Resources (SCER).
- 3.11 In undertaking regulation of electricity provision in the Territory, the Commission seeks to align electricity industry regulatory arrangements with those of the NEM where possible. The Commission considers that the NEL and NER represent generally accepted regulatory practice at this time. Further, adoption of a NEM-like framework would facilitate any future decision by Government to move to the national framework (although noting that transition to a NEM-like framework over a period of time does not necessarily mean that the Territory will adopt the National Electricity Law and Rules).

Network price regulation

- 3.12 Network infrastructure for the transportation of electricity displays economies of scale and scope and cannot be economically duplicated. The owner or operator of network infrastructure (network service provider) occupies a strategic position in the supply chain, since a generator or retailer can only supply electricity to its customers if it can transport this electricity via the network. For effective competition in upstream and downstream markets with a transportation requirement, all parties – irrespective of their affiliation with the network service provider – must have access to the network.
- 3.13 Elsewhere in Australia, there is a clear distinction in the operation and ownership of the transmission and distribution elements of an electricity system. Transmission networks transport electricity from generators to distribution networks in metropolitan

- and regional areas. They operate at high voltages for efficient transport over long distances.
- 3.14 Distribution networks transport electricity from points along the transmission lines to customers. Electricity must be stepped down to lower voltages in a distribution network for safe use by customers. A distribution network consists of the poles, underground channels and wires that carry electricity, as well as substations, transformers, switching equipment, and monitoring and signaling equipment.
- 3.15 Unlike the NEM, the Territory's regulatory framework makes no specific or statutory distinction between transmission and distribution. While a transmission network⁷ overlay exists to connect generation to major load centres, the network services regulated under the NT Access Code include both transmission and distribution services.
- 3.16 The NT Access Code imposes an obligation on the network service provider to use all reasonable endeavours to accommodate the requirements of those seeking access to the prescribed electricity network in the Northern Territory, and regulates the prices paid by network users for the conveyance of electricity through the electricity network.
- 3.17 Part 3 of the NT Access Code specifies the price regulation framework to be observed by the Commission and by the network service provider when setting the prices to be paid by network users. Specifically:
- Chapter 6 of the Code sets out the approach that the Commission is to use when determining the network service provider's annual network revenue or price cap;
 - Chapter 7 of the Code regulates the structure and level of individual network tariffs within the network service provider's annual revenue or price cap; and
 - Chapter 8 of the Code provides for regulatory oversight of capital contributions expected of network users.
- 3.18 The Commission has been undertaking network price regulation under the provisions of the NT Access Code since 1 April 2000.⁸
- 3.19 The network service provider in all regulated networks in the Northern Territory is PWC Networks.
- 3.20 The current regulatory control period – the third regulatory control period – began on 1 July 2009 and ends on 30 June 2014.
- 3.21 In the lead-up to the commencement of the fourth regulatory control period (the five-year period commencing 1 July 2014), the NT Access Code requires the Commission as regulator – in consultation with interested parties – to:
- a) with respect to tariffs and charges to be set by the network service provider for the supply of regulated network access services – determine the cap or limit

⁷ The transmission elements of the Territory system comprise about 10 per cent of total line length.

⁸ This Paper does not deal with the regulatory oversight of the setting of out-of-balance energy prices payable between generators. These prices are regulated under Chapter 9 of the NT Access Code, and are subject to separate processes.

on the total revenue to be raised from, or the average price to be charged for, the supply of those services in a network;

- b) oversee the application by the network service provider of principles for setting reference tariffs to apply to standard network access services; and
- c) oversee the application by the network service provider of principles for setting capital contributions and charges.⁹

3.22 The Commission is also required to determine excluded network access services (that is those services for which the associated costs and revenue are excluded from the revenue or price cap).¹⁰

Evolution of Price Regulation in the Territory

First Regulatory Control Period

- 3.23 In the first regulatory control period (from 1 April 2000 to 30 June 2004), the NT Access Code specified the form of price control, and hence prescribed the network price control mechanism to be used in some detail.
- 3.24 The NT Access Code mandated that revenue caps be determined for each financial year during the first regulatory control period¹¹ using a building block approach in accordance with the provisions set out in Schedule 6 of the Code and the WACC in accordance with the provisions set out in Schedule 8 of the Code.
- 3.25 Four separate revenue caps were determined for Darwin, Katherine, Alice Springs and Tennant Creek, using a limited forward-looking building block approach, with separate tariff schedules approved for each network from 1 July 2000. The Darwin-Katherine transmission line (DKTL) was prescribed as a regulated network in April 2001 and incorporated into the revenue cap from 1 July 2001.
- 3.26 If actual revenue collected differed from the maximum allowable revenue (MAR), the variation was to be monitored in an 'under's and over's' account. The account was cumulative from year to year, and a notional interest charge was applied on the cumulative balance at the end of each financial year.¹²
- 3.27 The Commission developed tolerance margins for variance between the MAR and actual revenue for each financial year during the first regulatory control period, triggering certain responses from the network service provider.
- 3.28 PWC consistently over-recovered revenue in the first three years of the regulatory control period, due mainly to higher than predicted energy sales growth. Price instability within the regulatory control period due to the operation of the under's and over's account whereby any over-recovery (under-recovery) is deducted (added) from the regulated revenue in future years is a drawback of the revenue cap form of price control.
- 3.29 Poor demand forecasting was one of the issues which influenced the Commission at that time in moving from a revenue cap to a price cap approach for the next

⁹ Clause 62(1) NT Access Code

¹⁰ Clause 72(1) NT Access Code

¹¹ Clause 66(2) NT Access Code

¹² Utilities Commission, June 2000, Revenue Determinations 2000-01 to 2002-03, page 22.

regulatory control period, so that volume risk is borne by the network service provider, rather than by network users.

Second Regulatory Control Period

- 3.30 The Code is less prescriptive in relation to the form of price control to be applied by the Commission during the second and subsequent regulatory control periods.
- 3.31 The second regulatory control period (from 1 July 2004 to 30 June 2009), adopted a price cap form of price control, rather than continuing with the revenue cap approach used in the first regulatory control period. The price cap was based on a 'tariff basket' approach using weighted average prices.
- 3.32 A single weighted average tariff basket was determined for the whole of the Territory, rather than for each distinct network. The Commission was of the view that the principle of achieving cost reflectivity had to be balanced against the considerable compliance costs associated with the determination of three distinct network price caps.
- 3.33 PWC was given the discretion to adjust tariffs as it felt necessary, subject to:
- the overall CPI-X price constraint on the weighted average tariff basket;
 - tariff structures being consistent with the approved Network Pricing Principles and the principles set out in the NT Access Code; and
 - a side constraint limiting the annual increase faced by an individual customer, thereby preventing price shocks.
- 3.34 Due to doubts about the robustness of PWC data, the Commission determined the X-factor based on an externally benchmarked estimate of the trend annual rate of productivity (or efficiency) performance for the industry.
- 3.35 For the second regulatory control period, the Commission effectively split the conventional notion of X into two components:
- an industry-wide performance benchmark (X_1) determined by the Commission prior to commencement of the second regulatory control period which reflected the difference between annual movements in consumer prices on average and in electricity network access prices on average in Australia, based on X factors typically applying to comparable best practice, efficient network service providers in other jurisdictions at that time; and
 - a company-specific 'stretch factor' (X_2) determined by the Commission prior to commencement of the second regulatory control period which reflected the difference between annual movements in electricity network access prices applied on average by comparable best practice network service providers in other jurisdictions in Australia and by PWC Networks, on the basis that any remaining operating and maintenance expenditure inefficiencies reasonably assessed to be within the control of management would be eliminated by the end of the third regulatory control period.

Third Regulatory Control Period

- 3.36 The third regulatory control period is the five-year period from 1 July 2009 to 30 June 2014.
- 3.37 The Commission decided to continue with a single Territory-wide price cap based on a weighted average tariff basket for the third regulatory control period.

- 3.38 In determining regulated revenue for the third regulatory control period, the Commission was not confident that PWC could provide robust data for a full forward-looking building block approach, and therefore did not undertake such an analysis of PWC Networks' costs.
- 3.39 Rather, the Commission decided that PWC Networks' costs at the end of the second regulatory control period would be subjected to a single-year 'cost of service' building block assessment to determine whether a Po adjustment was warranted in order that the weighted average of network access tariffs to apply at the commencement of the third regulatory control period was sufficient to recover the efficient costs of supply of regulated network access services.
- 3.40 The CPI-X price path applied during the third regulatory control period was based on externally benchmarked expected efficiency improvements derived by applying the total factor productivity (TFP) approach.
- 3.41 Under a TFP approach, prices are set to increase by CPI-X, where X is set with reference to the estimated growth in total factor productivity over an appropriate historical period based on estimates of long-term industry-wide cost, demand and efficiency trends. The TFP sets a revenue allowance for a business based on how it performs in comparison to a measured productivity trend for the industry as whole.
- 3.42 For the third regulatory control period, the Commission decomposed the X factor into three components:
- an X_1 component, being the difference between the industry's TFP growth and that for the economy as a whole;
 - an X_2 component, being the difference between the best observed operating expenditure partial productivity level and the firm's operating expenditure partial productivity level; and
 - an X_3 component, being the difference between the firm's input price growth and that for the economy as whole.

Propose-Respond model

- 3.43 The Commission also chose to adopt some of the processes of the national market, namely the 'propose-respond' model of the NER, rather than the 'receive-determine' model of the previous regulatory control period.
- 3.44 PWC Networks' regulatory proposal was required to include a services classification proposal showing how the network services to be provided by PWC Networks should be classified in accordance with Part B, Division 1 of the NER. The Commission also required that activity descriptions of the distribution services be clearly and exhaustively stated, so that it was clear to customers what services are not part of the standard network access service and therefore attract additional charges.
- 3.45 The regulatory proposal was also required to include:
- for alternative control services – a proposed control mechanism; and
 - for negotiated network services – a proposed negotiating framework.
- 3.46 In relation to standard control services, the regulatory proposal was required to include:
- a proposed Po adjustment factor calculated using the Po adjustment model developed by the Commission (including details of all the amounts, values and inputs relevant to the calculation and supporting documentation);

- a draft Network Pricing Principles and Methods Statement to apply to the setting of individual prices; and
 - for the regulatory year commencing 1 July 2009, indicative Network Tariff Schedules consistent with all other elements of the regulatory proposal and using values for CPI and the X-factors applying to the control mechanism for standard control services as determined by the Commission.
- 3.47 The regulatory proposal was required to include a draft statement providing details of principles and methods for establishing capital contributions.
- 3.48 The Commission decided not to apply a demand management scheme or a service target performance incentive scheme (as established under the NER) in the third regulatory control period.
- 3.49 Key issues addressed in the Commission's determination included:
- The Commission estimated the 2008-09 opening regulatory asset base (RAB) value at \$460.5 million as sufficient (but no more) to ensure the ongoing financial viability of PWC Networks. This was based on a roll-forward of the value of \$350 million struck at 1 July 2002 (also the date of PWC's corporatisation).
 - The Commission assessed PWC Networks' annual operating and maintenance expenditure to be above an immediately achievable efficient level, based on benchmarking against other similar Australian network operators.
 - PWC Networks claimed that its unit costs were set to increase by around 2.5% per annum in real terms, based on a building blocks approach, substantially higher than the Commission's proposed X-factor of -0.85%.
 - The Commission estimated around one-third of PWC Networks' projected capital works program over the regulatory control period was in the nature of remedial capital expenditure. The Commission allowed the spending increases actually evident over the second regulatory control period as amounts that consumers need to fund, but was not prepared at that time to validate the further spending foreshadowed by PWC Networks in the third regulatory control period.
- 3.50 PWC expressed concerns that the regulated revenue determined by the Commission was less than needed to cover PWC's projections of spending over the five years of the third regulatory control period.
- 3.51 The Commission's view at the time was that, while the Commission was prepared to allow the spending increases actually incurred over the second regulatory control period as amounts that consumers needed to fund, the Commission was not prepared to validate the projections of further spending increases.
- 3.52 However, the Commission agreed that a reconciliation would take place at the end of the third regulatory control period once PWC's actual spend during that period was confirmed.
- 3.53 Further information on the Commission's 2009 Network Price Determination is available on the Commission's website.

Context of the 2014 Network Price Determination

Link between network and retail prices in the NT context

- 3.54 Retail electricity prices paid by customers are made up of a number of elements including generation, system operation and retail costs and the costs of transporting the energy through the transmission and distribution networks.
- 3.55 Retail electricity prices may indirectly impact on the determination of regulated network charges to the extent that they influence demand for network services, for example, the effect of retail price increases may be a decrease in demand for network services. Expected levels of demand will influence the forecasts of the capital and operating expenditure required over the regulatory control period, and hence the required regulated revenue stream determined by the Commission.
- 3.56 In the Northern Territory context, a retailer purchases wholesale energy from PWC Generation at a cost-reflective price and purchases network services from PWC Networks at the regulated network tariffs. PWC Generation and PWC Networks are required to provide services to all retailers, including PWC Retail, on a non-discriminatory basis.
- 3.57 The Commission has licensed three electricity retailers, PWC Retail, QEnergy and ERM Power Retail Pty Ltd (ERM Retail).
- 3.58 For some customers, mainly domestic and small business customers, the Territory Government sets a maximum price, or maximum price increase, that can be charged by PWC Retail. Where the Government requires PWC to provide certain customers with services on a non-commercial basis, the Government effectively subsidises these customers by providing a community service obligation payment (CSO) to PWC.
- 3.59 The Commission notes that on 20 November 2012, the Government announced a 30 per cent price increase to regulated retail tariffs from 1 January 2013.¹³
- 3.60 The objectives of network pricing set out in the NT Access Code include that the network tariffs be transparent and published in order to provide pricing signals to network users.¹⁴ Government subsidies at the retail level for customers using less than 2GWh per annum mean that it is more difficult to identify the price signals delivered by the network tariffs.

2009 Priority Work Program

- 3.61 In August 2009, the Territory Government requested that the Commission undertake a priority work program intended to:
- identify options to increase the efficiency of the electricity industry;
 - improve customer standards of service and reliability; and
 - align electricity industry regulatory arrangements with those of the NEM where possible (although noting that transition to a NEM-like framework over a period

¹³ 'Getting Power and Water Back on Track' Northern Territory Government Media Release, The Hon, Robyn Lambley, Treasurer, 20 November 2012

¹⁴ Clause 74(1)(c) NT Access Code

of time does not necessarily mean that the Territory will adopt the National Electricity Law and Rules).

- 3.62 The priority work program involved eight reviews. The reviews provide a framework for change to the regulatory and institutional arrangements governing the Territory electricity industry.
- 3.63 Key recommendations from the reviews which are relevant to the 2014 Network Price Determination include:¹⁵
- Regulatory Investment Tests for transmission (RIT-T) and distribution (RIT-D) should be introduced to ensure that network developments are subject to a cost-effectiveness evaluation;¹⁶
 - distribution network businesses should develop distribution network planning instruments that are consistent with the purpose and characteristics of the annual planning instruments required in the NEM, including credible and dependable forecasts of future electricity demand and supply, and authoritative data on the current and future capability and condition of infrastructure;¹⁷
 - development of a framework for the reporting of comprehensive distribution network information;¹⁸
 - clearly defined distribution network reliability standards and performance targets should support network planning;¹⁹
 - development of a guaranteed service level scheme aligning the GSL payment criteria with the network price determination cycle to ensure that the GSL allowance approved by the regulator as part of the network price determination reflects the expected financial impact resulting from the changes to the GSL criteria;²⁰
 - a mechanism should be developed to monitor and investigate distribution network incidents;²¹ and
 - periodic detailed investigation of PWC's costs, prices and revenues (at each point of the electricity chain) disaggregated by customer class to ensure that customer charges are cost-reflective, and that the costs involved represent no more than the reasonable long-run cost of supplying electricity.²²

¹⁵ It can be noted that a number of recommendations have been or are currently being implemented.

¹⁶ Utilities Commission, December 2011, Review of Electricity System Planning, Monitoring, and Reporting – Final Report.

¹⁷ Ibid.

¹⁸ Ibid.

¹⁹ Utilities Commission, November 2010, Review of Electricity Standards of Service for the Northern Territory – Final Report.

²⁰ Utilities Commission, July 2010, Review of Options for Implementation of a Customer Service Incentive Scheme for Electricity Customers – Final Report; Utilities Commission, December 2011, Guaranteed Service Level Code – Statement of Reasons, page 11

²¹ Utilities Commission, December 2011, Review of Electricity System Planning, Monitoring and Reporting – Final Report.

²² Utilities Commission, September 2010, Review of Options for the Development of a Retail Price Monitoring Regime for Contestable Electricity Customers – Final Report.

2012 Review of Power and Water Corporation

- 3.64 On 2 November 2012, the Territory Government announced a comprehensive review of PWC to look at the corporation's structure, operation and areas where efficiency gains can be made.²³
- 3.65 The review is expected to be completed by the end of February 2013 and will report on potential changes in relation to the structure, governance, operations and policies of PWC, including its status as a vertically integrated electricity, water and sewerage service provider.
- 3.66 As the 2014 Network Price Determination deals with the ring-fenced network business unit, the Commission does not expect the review to impact on the current determination process (although noting that the review encompasses regulation and may lead to changes in future). However, any identified efficiencies and cost savings from structural and operational reform that impact on the networks business will flow through to PWC's regulatory proposal.

Reconciliation of actual expenditure

- 3.67 At the time of the 2009 Network Price Determination, the Commission expressed the view that PWC's projections of increasingly higher levels of capital expenditure and operating and maintenance expenditure represented a 'worst case' scenario.
- 3.68 A reconciliation of the actual expenditure that PWC Networks has incurred during the third regulatory control period will form part of the Commission's assessment of required revenue for the 2014 Network Price Determination. In undertaking this reconciliation, the Commission intends to subject that expenditure to detailed scrutiny to evaluate its efficiency. The Commission intends to consider:
- whether the expenditure forecast in 2009 actually eventuated;
 - if the expenditure was incurred, whether it has achieved, or is expected to achieve, the desired outcomes; and
 - whether the expenditure was required at that time or could have been reasonably deferred.

PWC submission

- 3.69 PWC argued that, as the Commission did not utilise a forward-looking building blocks approach for the 2009 Network Price Determination, PWC has essentially only received a return on and return of capital for 2008-09, and not on its forecast rolled forward RAB, for this current regulatory control period.
- 3.70 PWC strongly supports a reconciliation of the actual expenditure incurred by Power Networks during the third regulatory control period being undertaken and further contends that, to ensure its ongoing commercial viability, PWC should receive a rate of return on its capital expenditure during the current regulatory control period, and the undepreciated value of its capital expenditure should be included in the RAB at the start of the new regulatory control period.

²³ Review of Power and Water Corporation, Northern Territory Government Media Release, The Hon, Robyn Lambley, Treasurer, 2 November 2012

- 3.71 PWC notes that the required revenue calculation under a forward building blocks approach will not provide for the return of and return on assets foregone during the current regulatory control period.

Commission's considerations

- 3.72 The Commission does not accept PWC's contention that it has forgone the return on, and of, assets due to the use of a TFP-based approach in the current regulatory control period. Rather it has received a return on and of assets based on an asset base expanding at the rate based on efficient industry standards rather than based on PWC's forecasts of firm-specific depreciation, indexation and capital expenditure.
- 3.73 This is discussed further in relevant sections of Chapter 7.

Service standards and the regulatory bargain

- 3.74 The 'regulatory bargain' is the balancing of the interests of the regulated business and its customers. Jurisdictional regulators have devoted some attention to ensuring that the network service providers meet their part of the regulatory bargain – that the reliability and quality of the service provided by the regulated business matches that provided for in the network price determination.
- 3.75 While the regulatory bargain is between the service provider and the customer about the quality of the services provided matching the customers willingness to pay for those services, the regulator stands as proxy for the customer who has limited ability to voice an opinion about satisfaction with the service and the price paid.
- 3.76 As part of the priority work program requested by the Territory Government, the Commission undertook a review of the electricity standards of service (ESS) framework in the Northern Territory to report on the adequacy and effectiveness of the current ESS Code and advise on options to ensure electricity generation, network and retail standards of service are appropriate in the Territory.
- 3.77 The Commission's Final Report on the Review of Electricity Standards of Service for the Northern Territory was published in November 2010. The Commission identified deficiencies in the existing ESS arrangements and made a number of recommendations to improve the ESS framework.
- 3.78 In line with these recommendations, the Commission is currently developing a new ESS Code. A draft ESS Code was released for consultation on 15 May 2012 and submissions closed 8 June 2012.
- 3.79 A second draft ESS Code and accompanying draft Statement of Reasons were released for consultation on 5 October 2012 with submissions due by 19 October 2012.
- 3.80 The Commission expects the new ESS Code will take effect from 1 December 2012. In setting the network reliability target standards, the Commission will consider what it deems to be acceptable levels of service performance. The network service provider will be required to use best endeavours to achieve these target standards.
- 3.81 The Commission will consider the network service provider's service standards when assessing its revenue proposal as part of the network determination. It is the Commission's intention to align the setting of network reliability target levels with the network price (or revenue) determination cycle.

CHAPTER 4

Commission's approach to the 2014 Network Price Determination

- 4.1 Clause 66(3) of the NT Access Code requires the Commission to determine the revenue or price caps that are to apply during each regulatory control period in a manner that, in the Commission's opinion, most effectively achieves the desired outcomes set out in clause 63 and is consistent with generally accepted regulatory practice at the time.
- 4.2 In applying regulatory objectives and criteria to the Territory, the Commission's preference is for regulatory consistency, continuing with current arrangements unless there are good reasons to change.
- 4.3 The Commission's view is that generally accepted regulatory practice for electricity networks price determinations is the process undertaken by the AER in accordance with the NER, and that working towards alignment with national arrangements is in the long-term interest of Territory electricity consumers.
- 4.4 The Commission acknowledges that adopting a different framework for the 2014 Network Price Determination could impose administrative costs on the network service provider in the short term and create some level of uncertainty. The Commission's objective is to minimise the impact of any changes to its regulatory approach.
- 4.5 The Commission is mindful of the changing character of the Territory's electricity market, in particular the implementation of recommendations arising from reviews undertaken by the Commission over the last two years, the current review of PWC structure and operations commissioned by Government and the consequences of the entry of new retailers, QEnergy and ERM Retail, into the retail market.

Requirements of the NT Access Code

- 4.6 Part 3 of the NT Access Code specifies the price regulation framework to be observed by the Commission and by the network service provider when setting the prices to be paid by network users for the conveyance of electricity through the electricity network.
- 4.7 The Territory's regulatory framework makes no specific or statutory distinction between transmission and distribution, with the network services regulated under the NT Access Code including both transmission and distribution services.
- 4.8 The price regulation framework comprises:
- price regulation principles and structures which must be observed by the Commission, essentially involving the policy framework set by the NT Government within which the Commission and participants (network service providers and network users) operate, and over which neither the Commission nor participants have any discretion; and

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- the price regulation methodology which involves the practical and technical detail concerning the administration of price regulation, over which the Commission, in consultation with participants, has a degree of discretion.
- 4.9 The NT Access Code requires the Commission to administer access price regulation in a way that achieves:
- efficient costs of supply (including expected revenue for a regulated service or services that is at least sufficient to meet the efficient long-run costs of providing that service, and includes a return on investment commensurate with the commercial and regulatory risks involved);
 - prevention of monopoly rent extraction by the network service provider;
 - promotion of competition in upstream and downstream markets and promotion of competition in the provision of network services where economically feasible;
 - an efficient and cost-effective regulatory environment;
 - regulatory accountability through transparency and public disclosure of regulatory processes and the basis of regulatory decisions;
 - reasonable certainty and consistency over time of the outcomes of regulatory processes;
 - an acceptable balancing of the interests of the network service provider, network users and the public interest; and
 - such other outcomes as the Commission determines are consistent with the underlying principles set out in the NT Access Code.²⁴
- 4.10 The NT Access Code requires the Commission, in setting a revenue or price cap, to have regard to:
- demand growth the network service provider is expected to service using measures such as energy consumption by category of network users, numbers of network users and length of the electricity network;
 - service standards applicable to the network service provider;
 - potential for efficiency gains to be realised by the network service provider in expected operating, maintenance and capital costs;
 - network service provider's cost of capital, having regard to the risk-adjusted rate of return required by investors in commercial enterprises;
 - provision of a return on efficient capital investment undertaken by the network service provider in order to maintain or extend network capacity;
 - right of the network service provider to recover reasonable costs incurred by the network service provider in connection with the operation and maintenance of the network;
 - any increase in the rate of a tax or any new tax;
 - any reduction or increase in network energy losses; and
 - the on-going commercial viability of the network service provider.²⁵
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²⁴ Clause 63 NT Access Code

²⁵ Clause 63 NT Access Code

- 4.11 The revenue or price caps to be applied during the second and subsequent regulatory control periods are to be determined by the Commission in a manner that most effectively achieves the desired outcomes of price regulation and is consistent with generally accepted regulatory practice at the time.²⁶
- 4.12 In the first regulatory control period, schedules to the NT Access Code also set out formulae and components for:
- determining the network service provider's annual revenue cap;²⁷
 - establishing the WACC;²⁸ and
 - how the X factor (in the CPI-X annual escalation)²⁹ is to be determined.
- 4.13 The NT Access Code is less prescriptive in relation to these matters during subsequent regulatory control periods, requiring the Commission to determine the methodology to be applied in a manner that most effectively achieves the desired outcomes of the price regulation and is consistent with generally accepted regulatory practice at the time.
- 4.14 It should be noted that the Commission has no discretion over some aspects of the price regulation framework and these are therefore outside the scope of the 2014 Network Price Determination. These aspects include:
- legislative requirement on PWC Networks to give notice of revised or new network tariffs at least 30 days before the commencement of each financial year, or prior to such changes taking effect (clause 61(1) of the NT Access Code);
 - tariffs contained in PWC Networks' pricing schedule with respect to standard network access services are to be the maximum tariffs applying to those services (clause 61(3) of the NT Access Code);
 - where the network access services required are different to the relevant standard network access services, or where the provision of standard network access services may give rise to cost savings on the part of PWC Networks, the tariffs are to be commercially negotiated between the network user and PWC Networks (clause 73(4) of the NT Access Code);
 - prior to commencement of each regulatory control period, PWC Networks must provide the Commission with a draft Pricing Principles and Methods Statement setting out details of principles and methods to be used for establishing the reference tariffs to apply to individual standard network access services (clause 75(5) of the NT Access Code);
 - that, at least 60 days prior to the start of each financial year, PWC Networks must provide to the Commission a statement setting out its proposed reference tariffs for the standard network access services it will be supplying that will apply in the relevant period with respect to a network (clause 78(1) of the NT Access Code);
 - that, prior to commencement of each regulatory control period, PWC Networks must provide to the Commission a draft statement providing details of principles and methods for establishing capital contributions (clause 81(2) of the NT Access Code); and

²⁶ Clause 66(3) NT Access Code

²⁷ Schedule 6 NT Access Code

²⁸ Schedule 8 NT Access Code

²⁹ Schedule 10 NT Access Code

- that the length of the fourth regulatory control period is five years (clause 3 of the NT Access Code).

Requirements of the National Electricity Rules

- 4.15 On 1 January 2008, the AER assumed responsibility for the economic regulation of distribution network service providers (DNSPs) in the NEM.
- 4.16 The AER must make a distribution determination for each DNSP. If a DNSP operates more than one distribution system, the AER may determine whether or not a separate distribution determination is to be made for each distribution system.
- 4.17 Part B of Chapter 6 of the NER deals with the classification and forms of control for the economic regulation of distribution services and the processes for making distribution determinations.
- 4.18 The NER sets out the types of control mechanisms that may be applied for different classes of distribution services, but mandates that, for services classified as 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.
- 4.19 It further mandates that a forward-looking building block approach be used, prepared in accordance with the post-tax revenue model developed by the AER.
- 4.20 Following extensive public consultation, the AER has published a number of guidelines, models and schemes to assist DNSPs and their customers to understand the AER's approach to the regulation of electricity distribution businesses under the NER.

Applicability of the NER to the 2014 Network Price Determination

- 4.21 The Commission acknowledges that the NEM is an established regulatory framework which has been developed over a decade and includes optimised consumer protections. The Commission considers that the NEM arrangements and the NER represent generally accepted regulatory practice in Australia and that the Territory could benefit from adopting a similar market framework and mechanisms.
- 4.22 To the extent that the Commission has the discretion to implement NEM-like arrangements, it will consult with stakeholders on the applicability of adopting these arrangements in the Territory.
- 4.23 The NT Access Code does not prescribe the manner in which the regulator is to determine the revenue or price caps for the second and subsequent regulatory control periods as long as the outcomes of the determination are consistent with the objectives of price regulation³⁰ and the revenue and price cap principles³¹ are adhered to.

³⁰ Clause 63 NT Access Code

³¹ Clause 68 NT Access Code

Commission's preliminary position

- 4.24 The Commission's preliminary position was that its preferred approach for the 2014 Network Price Determination was to adopt those parts of Chapter 6 of the NER as applied by the AER that are not inconsistent with the NT Access Code.

Table 4.1: Applicable provisions of Chapter 6 of the NER

NER	Recommendation
Part A – Introduction	
Part B – Classification of Distribution Services and Distribution Determinations	Partially apply for the NT 2014 Determination for classification of services and for the form of control mechanism to apply to standard control services Not applicable for the form of control mechanism to apply to alternative control services - NT Access Code does not authorise the Commission to regulate the prices for these services except in case of dispute or disagreement.
Part C – Building Block Determinations for standard control services	Apply for the NT 2014 Determination, modified to the extent required to be within PWC's capabilities
Part D – Negotiated distribution services	Not applicable - NT Access Code does not authorise the Commission to enforce compliance with a negotiation framework
Part E – Regulatory proposal	Apply for the NT 2014 Determination, modified to the extent required to be within PWC's capabilities
Part F – Cost Allocation	Apply for the NT 2014 Determination, modified to the extent required to be within PWC's capabilities
Part G – Distribution consultation procedures	Not applicable – sets out consultation AER must follow when making guidelines, models or schemes (eg PTRM, STPIS etc)
Part H – Ring-fencing Arrangements for Distribution Network Service Providers	Not applicable – NT has own Ring-fencing Code
Part I – Distribution Pricing Rules	Apply for the NT 2014 Determination, modified to the extent required to be within PWC's capabilities
Part J – Billing and Settlements	Not applicable – NT has own Retail Supply Code under which interim B2B arrangements have been approved.
Part K – Prudential requirements, capital contributions and prepayments	Partially apply for the NT 2014 Determination for treatment of capital contributions, prepayments and financial guarantees in applying building block. Not applicable for prudential requirements - NT has own Retail Supply Code which sets out prudential arrangements.
Part L – Dispute resolution	Not applicable – dispute resolution is not part of Determination and is dealt with in a separate section of the NT Access Code.
Part M – Separate disclosure of transmission and distribution charges	Not applicable
Part N – Dual Function Assets	Not applicable – NT Access Code does not distinguish between transmission and distribution

- 4.25 Benefits of adopting an approach consistent with the AER processes and relevant provisions of Chapter 6 of the NER include:
- that the NER is an established regulatory practice framework which has been developed over time and continues to evolve;
 - that the AER processes and NER apply to network service providers in other jurisdictions (excluding Western Australia) and would encourage a level of regulatory reporting consistent with that required of other network service providers;
 - provision of information through a more detailed regulatory proposal would provide a greater discipline on PWC to develop and maintain robust reporting;
 - allowing the Commission and PWC to leverage the knowledge and skills available through the AER to improve network pricing information and analysis; and
 - potential future benchmarking of network service provider costs.

Views in submissions

- 4.26 All submissions expressed general support for alignment with the NER, although with some reservations about specific details. These specific aspects are discussed in detail in the relevant chapters in this paper.
- 4.27 QEnergy expressed the view that the NER is a well-known and well-regarded arrangement for regulating third-party access and that adoption of the NER sends a strong and positive signal to potential new market entrants about the robustness of the Territory regime.
- 4.28 The NTMEU raised concerns that the NER is designed to regulate services provided by both private and government-owned firms and this means that there are aspects of the NER that provide a clear benefit to government owned service providers. NTMEU was concerned that PWC, as a government owned entity, may be provided with more income than is necessary.
- 4.29 The NTMEU also disagreed with the basis of the NER which is the propose/respond model, expressing the view that the Commission should continue with the consider/determine approach which it considers is implicit in the NT Access Code. The NTMEU considers that efficient levels of operating costs and capital expenditure are more likely to be achieved under the consider/determine model:
- “In particular, the propose/respond model allows the NSP to determine which elements of the opex will be based on the outcomes of an Efficiency Benefit Sharing Scheme (EBSS) and which will be set based on a “bottom up” approach. This means large parts of the capex are not being driven by the incentive to reduce opex.”*
- 4.30 PWC agreed with the Commission that full adoption of the AER’s processes is not practical at this time due to resource constraints, with the NER and AER’s processes being more onerous than the requirements under the NT Access Code. Where this is the case, PWC proposes a transitional approach to the adoption of the NER and AER requirements.
- 4.31 PWC also noted that DNSPs operating in the NEM have taken some time to establish the systems and processes required to meet the NER and AER’s reporting requirements.

- 4.32 PWC expressed the view that:
“The small size of the market, differences in the market structure and regulatory environment, limited available resources (internally and externally), and high scale costs in the NT mean that the regulatory cost/benefit trade-off is more significant here than in other systems in the NEM.”
- 4.33 All parties also noted that rule changes proposed by the AER and the Energy Users Association of Australia (EUAA) relating to network price regulation are currently the subject of consultation by the AEMC.

Commission’s further consideration

- 4.34 The Commission notes both QEnergy and the NTMEU concerns that PWC Networks may be allowed more revenue than is warranted if its capital and operating expenditure is not subject to rigorous appraisal.
- 4.35 The Commission can only re-affirm its commitment to exhaustively scrutinise PWC’s regulatory proposal. All interested stakeholders will have further opportunity to comment on the specific details of PWC’s regulatory proposal and the Commission’s evaluation of the proposal in the determination process.
- 4.36 With respect to the use of the propose/respond model, the Commission does not agree with the NTMEU contention that the use of a consider/determine approach is implicit in the NT Access Code. While the NT Access Code requires the Commission to ‘determine’ the revenue or price cap, similar terminology – determine/determination – is used in the NER and considered to be consistent with the propose/respond approach. Further, clause 66(3) of the NT Access Code provides that the revenue or price caps to apply during the second and subsequent regulatory control periods are to be determined by the regulator in a manner that, in the regulator’s opinion, most effectively achieves the desired outcomes set out in the Code and is consistent with generally accepted regulatory practice at the time,
- 4.37 The propose/respond model is generally accepted regulatory practice. It recognises the asymmetry of information between the regulated entity and the regulator, with the regulated entity being best placed to develop a proposal that suits its business model, consistent with legislative requirements.
- 4.38 The Commission notes PWC’s call for a transitional approach to the adoption of the NER and AER requirements. The Commission is proposing a transitional approach ie. applying those aspects of the NER that are consistent with the NT Access Code where practicable and where an aspect cannot currently be applied, documenting the reasons and putting in place a work program whereby the requirements can be met in full for the 2019 determination.
- 4.39 The Commission aims to set a high, but achievable, benchmark for the provision of information by PWC. The Commission notes that PWC has been aware of the Commission’s intention to align regulation in the Territory with the national arrangements for some time. The 2009 Network Price Determination adopted some aspects of the NER and foreshadowed the Commission’s intention to move towards further alignment for the 2014 determination. Further, the terms of reference for the reviews undertaken by the Commission as part of its 2009 Priority Work Program provided clear direction from Government that alignment with national arrangements should be pursued wherever practicable.

- 4.40 Against this background, the Commission has high expectations that PWC has developed its systems, policies and procedures as a priority outcome over the last five years, to be consistent with the requirements of national arrangements.
- 4.41 While noting PWC's argument that the regulatory cost/benefit trade-off is more significant here than in other systems in the NEM, the Commission expects a more substantial case to be made where PWC (or other stakeholders) consider that application of the NER should be delayed or not applied. Generalised assertions are not sufficient and should be substantiated by reference to cases, costs or data on the likely impacts on the business and the short and long impact on customers.

Implications of draft rule change

- 4.42 On 15 November 2012, the AEMC published its Final Position Paper on the rule change proposal on the economic regulation of network service providers and price and revenue regulation of gas services.
- 4.43 These changes relate to:
- Rate of return – amendment of the rate of return provisions in the NER and NGR to provide for a common framework (across transmission, distribution and gas), which will provide some high-level principles to guide the estimation and leave the judgment as to the best approach to the regulator to make, consistent with achieving the overall allowed rate of return objective.
 - Return on debt – the proposed common framework provides that the regulator can use a range of different approaches to undertake this task.
 - Capital expenditure incentives for electricity - inclusion in the NER of a number of "tools" the AER can apply to provide adequate incentives for NSPs to spend capital expenditure efficiently, having regard to an overall capital expenditure objective:
 - applying capital expenditure sharing schemes to provide incentives to incur efficient capital expenditure;
 - undertaking reviews of efficiency of past capital expenditure, including the ability to preclude inefficiently incurred expenditure from being rolled into the RAB; and
 - deciding whether to depreciate the RAB using actual or forecast expenditure.
 - Capital expenditure and operating expenditure allowances for electricity – to clarify and remove ambiguities regarding the powers of the AER to interrogate, review and amend capital expenditure and operating expenditure proposals submitted by NSPs.
 - Regulatory determination process - a number of detailed changes to the regulatory determination processes in Chapters 6 and 6A of the NER, including:
 - lengthening the regulatory determination process by commencing six months earlier, for both electricity distribution and transmission; and
 - improving transparency and accountability by requiring the NSP to nominate to the AER the reasons why it classifies material as confidential and the AER then publishing a report of the NSP making confidentiality claims.

- 4.44 The AEMC published its Final Determination on 29 November 2012. The AER will now be required to undertake public consultation and develop:
- rate of return guidelines;
 - capex incentive guidelines; and
 - shared assets, confidentiality and standard expenditure model guidelines.
- 4.45 As these implementation tasks will not be finalised by the time a number of service providers' regulatory proposals are due, additional provisions will be required to enable these service providers to transition to the new arrangements under the new rules. Without these additional provisions the new rules would not be able to come into effect until 2019 for a significant number of service providers.
- 4.46 The AEMC released an implementation proposal in September 2012.³² In brief, the AEMC proposes that the date for the commencement of the next full regulatory control periods for those NSPs currently due to submit regulatory proposals in 2013 would be delayed by 12 months, with a 'transitional' determination' for the interim year.
- 4.47 Submissions from stakeholders have proposed alternative approaches. In particular, the AER has proposed that, rather than delaying the determinations, that the next (full) regulatory control period would commence as scheduled, with transitional rules to provide a mechanism for setting a first year revenue (a placeholder revenue) that can then be trued-up over the remaining years of the regulatory control period when the final determination is made.

Commission's final decision

- 4.48 The Commission's approach for the 2014 Network Price Determination is to adopt those parts of Chapter 6 of the NER as applied by the AER and those models and guidelines developed by the AER pursuant to the NER that are not inconsistent with the NT Access Code.
- 4.49 The Commission will, in consultation with PWC Networks, for each aspect of the 2014 Network Price Determination:
- a) if a component of the approach used by the AER is not inconsistent with the requirements of the NT Access Code, to consider whether the requirements for that component can currently be met by PWC Networks and if so, then apply it;
 - b) if a component of the approach used by the AER cannot currently be met by PWC Networks, to make the minimum modifications necessary such that the modified requirements can be met by PWC Networks and apply the modified requirements; and
 - c) where a component of the approach used by the AER has been modified, document the reasons for departing from the NER and outline a framework and timeframe for putting in place capabilities to meet the requirement in future.

³² AEMC, *Consultation Paper on Savings and Transitional Arrangements*, September 2012

Draft rule change – transitional arrangements

- 4.50 The Commission's initial preference would be to follow any transitional arrangements established by the AEMC. However, delaying the determination by a year would not be consistent with the requirements of the NT Access Code. The NT Access Code clearly mandates 1 July 2014 to 30 June 2019 as the next regulatory control period.
- 4.51 It is also not clear that the AER's proposed approach of a streamlined determination process to arrive at a "placeholder revenue" for the first year of the regulatory control period, that is subsequently trued up is allowable under the NT Access Code, with the Code providing only limited bases for revoking or resetting a revenue or price cap once it has been determined.
- 4.52 That said, transitional arrangements are currently subject to consultation and it is not yet known what the final outcome will be.
- 4.53 The Commission considers that the NT Access Code requires that the 2014 Network Price Determination be finalised in line with the current timetable, with a final determination by 31 March 2014 to take effect from 1 July 2014.
- 4.54 In relation to the specific areas of the NER impacted by the AEMC's rule change decision:
- rate of return/return on debt – this is discussed in the section on the WACC in chapter 7. The Commission expects the guidelines to be developed by AER will reflect recent Australian Competition (Tribunal) decisions and analysis set out in recent AER determinations.
 - capital expenditure incentives – this is discussed in the sections on capital expenditure in chapter 7. The Commission considers that the changes are not inconsistent with the Commission's preferred approach.
 - capital and operational expenditure allowances – the Commission considers that the changes are not inconsistent with the Commission's preferred approach. Given the limited resources and capacity of both the Commission and PWC, ambiguities regarding the powers of the Commission to interrogate, review and amend capital expenditure and operating expenditure proposals submitted by PWC are not considered likely;
 - regulatory determination process – the 2014 regulatory determination process cannot be lengthened as it has already started and, as discussed above, must be finalised to take effect from 1 July 2014. However, the Commission considers that adopting the requirement that PWC nominate reasons for classifying material as confidential would increase the transparency of the determination process. Accordingly, Commission intends to make provision for such reporting in the Regulatory Information Notice, with the Commission reporting on this in its draft and final determinations.

Regulatory Information Notice and PWC's capacity to provide information

- 4.55 The AER requires DNSPs to provide it with the information necessary to make a distribution determination by issuing a Regulatory Information Notice (RIN) under Division 4 of Part 3 of the National Electricity Law (NEL).
- 4.56 A RIN is a notice prepared and served by the AER that requires the regulated network service provider, or a related provider, named in the notice to do either or both of the following:
 - (a) provide to the AER the information specified in the notice.
 - (b) prepare, maintain or keep information specified in the notice in a manner and form specified in the notice.
- 4.57 The AER is empowered to issue a RIN if it considers it reasonably necessary for the performance or exercise of its functions or powers under the NEL or the NER. This is broadly equivalent to the powers of the Commission to request information under section 25 of the *Utilities Commission Act*.
- 4.58 The RIN deals with the detailed data and supporting documentation that the AER needs to be satisfied that only reasonable and efficient costs are returned to the DNSP under its network price determination. While the AER's post –tax revenue model (PTRM) contains high level data suitable for publication, the information requested and provided under the RIN is dealt with on a confidential basis between the AER and the DNSP.
- 4.59 Financial information is provided on a disaggregated basis across appropriate categories such as individual work categories and asset classes. Extensive supporting data is also required, including identifying relevant policies, strategies and planning standards, explaining relevant cost drivers and methodologies, and providing comprehensive analysis on how the proposed spending achieves the objectives of price regulation.
- 4.60 For the 2009 Network Price Determination, practical considerations led the Commission to determine the X factor based on an externally benchmarked estimate of the trend annual rate of productivity (or efficiency) performance for the industry, due in part to doubts about the robustness of PWC data necessary to support a forward-looking building block approach as specified in the NER.
- 4.61 The Commission considered that due to concerns with unreliable data collection systems, there was little value in subjecting the data to interrogation by independent experts.

Commission's preliminary position

- 4.62 The Commission is aware that, since 2009, PWC has undertaken substantial work to improve its data collection systems. However, the Commission also appreciates that PWC's capabilities to deliver information suitable to be applied to an approach consistent with the NER methodology may depend on a number of initiatives being sufficiently developed and mature when the work on the 2014 Network Price Determination commences.

- 4.63 These initiatives include:
- full implementation of the Asset Management Capability (AMC) Project including implementing off-the-shelf and integrated systems supported by process redesign, change management and training, data improvement, and technical and service infrastructure;
 - further development of network asset management plans;
 - implementation of recommendations resulting from the various reviews undertaken in the Territory Government's priority work program; and
 - implementation of initiatives to further align PWC's processes and practices with good industry practice.
- 4.64 While further development is required, the Commission's preliminary view was that sufficient progress has been made to apply a firm-specific building block approach for the 2014 Network Price Determination.
- 4.65 In line with this, the Commission proposed to issue a request for information under section 25 of the Utilities Commission Act that will be largely modeled on the RIN issued by the AER to DNSPs in the NEM.
- 4.66 The Commission is aware that the Territory Government is conducting a review of PWC's structure and operations and areas where efficiencies can be made. The Commission notes that the review should be complete by February 2013 and so should PWC's input into the review. The Commission appreciates that PWC is yet to know what outcomes may come from the review and the subsequent requirement for resources to be dedicated to implementing those outcomes. The requirement for PWC to submit its regulatory proposal for the Network Price Determination is a legislative requirement but the Commission will work with PWC to ensure the necessary timeframes are achievable.

Views in submissions

- 4.67 Neither QEnergy nor the NTMEU made any comment with respect to PWC's capacity to provide information and the use of a Regulatory Information Notice modeled on RINs used by the AER.
- 4.68 PWC provided little detail on its capacity to provide information, noting that the data and supporting documentation that the Commission will require under the RIN is unknown at this stage. PWC indicated its willingness to work with the Commission to determine the extent to which information provision can be best matched to that required under the NER and the AER processes.

Commission's final decision

- 4.69 The Commission welcomes PWC's willingness to work with the Commission, but the Commission's view is that PWC will have a reasonable idea of the data and supporting documentation required. Regulatory proposals by network service providers in other jurisdictions are also publicly available (excluding commercial –in-confidence information) and would provide PWC with an indication of the level of detail required to be submitted as part of the national regulatory arrangements.
- 4.70 As previously noted, alignment with national regulatory arrangements to the maximum extent practicable has been a key feature of the evolution of the Territory regulatory framework. This should be no surprise for PWC. Capacity to provide information consistent with national requirements should have been a required outcome in developing systems, policies and procedures over the last five years.

- 4.71 At issue is the level of detail and supporting documentation that is required to effectively achieve an appropriate outcome for network pricing over the coming regulatory control period. To this end, the Commission will workshop with PWC to develop a RIN that provides a sufficient level of detail for the Commission to be confident that PWC receives as much revenue as it reasonably requires, but no more, to provide an efficient and reliable level of service to network users.
- 4.72 The starting point will be a RIN and associated data templates similar to that issued by the AER to DNSPs in the NEM. The Commission will then work with PWC to determine where adjustments need to be made to take account of PWC's resources and capacity to provide information.
- 4.73 Following these discussions, the Commission will provide a draft RIN to PWC for comment in accordance with section 28J of the NEL which, in the Commission's opinion, sets a high but achievable level, before formally issuing the RIN.

Scope of the Network Price Determination

Transmission network versus distribution network services

- 4.74 Unlike the NEM, the Territory's regulatory framework makes no specific or statutory distinction between transmission and distribution in the Territory with the network services regulated under the NT Access Code encompassing both transmission and distribution services.
- 4.75 While the economic regulation of distribution networks is covered by Chapter 6 of the NER and the economic regulation of transmission networks by Chapter 6A, a high priority has been placed on maintaining consistency across the regulatory framework, particularly in relation to the guidelines, schemes and models underlying the determination of revenue requirements for TNSPs and DNSPs.
- 4.76 In the NEM, assets operating between 66kV and 220kV that do not operate in parallel to and provide support to the higher voltage transmission network may be deemed by the network service provider to be part of the distribution system by agreement with the AER and the jurisdictional regulator.
- 4.77 Transmission elements in the Territory networks consist of the Channel Island, Weddell and Berrimah power stations' connection to primary load centres via two 132kV transmission lines and seven 66kV zone substations and the connection of power stations and loads at Katherine and Pine Creek via a single 132kV line from Channel Island power station.
- 4.78 Consistent with NEM definitions, PWC's networks in the Northern Territory have been regulated as distribution networks.

Regional determinations versus a single NT-wide determination

- 4.79 While the NER explicitly addresses the circumstance where a DNSP operates more than one distribution system, allowing the AER to determine whether or not a separate distribution determination is to be made for each distribution system, the NT Access Code is silent in this regard.
- 4.80 At the commencement of the regulatory regime on 1 April 2000, four distinct networks were prescribed by the Minister (Darwin, Katherine, Tennant Creek and Alice Springs) with the Darwin-Katherine Transmission Line (DKTL) being prescribed separately about 12 months later.

- 4.81 In 2004, the Commission determined a single weighted average tariff basket for the whole of the Territory, rather than for each distinct network, balancing the principle of cost reflectivity against the considerable compliance costs associated with the determination of three distinct network price caps – the Northern Grid comprising the Darwin-Katherine interconnected system, the Tennant Creek network and the Alice Springs network.
- 4.82 Subject to some constraints, including tariff structures being consistent with principles set out in the NT Access Code, PWC Networks was given the discretion to adjust tariffs as it felt necessary. Over the third regulatory control period, PWC Networks converged the three regional tariff schedules into a single Territory-wide tariff schedule on the basis that the benefits of administrative simplicity outweigh the costs of the loss of some degree of cost reflectivity.
- 4.83 Interested parties have raised concerns about the removal of locational price signals. These can be delivered by a separate distribution determination for each regional network or through a detailed examination of the structure of PWC Networks' proposed tariffs including modelling to demonstrate compliance with network pricing principles,
- 4.84 The Commission places particular emphasis on making regulation cost effective, and the scope for giving increased weight to regulatory stability and predictability. This approach reflects the Commission's concern at the cost and complexity of regulation in a small market.
- 4.85 For a small system, the cost-effectiveness of regulation is a key consideration in assessing 'best practice'. However, cost-effectiveness does not mean minimum cost, but a balancing of costs and benefits.
- 4.86 In considering whether a separate distribution determination is to be made for each distribution system, the Commission will consider to the following:
- impact on the network service provider's incentives for efficient behaviour;
 - effective measures to ensure that total revenue tracks total cost;
 - implications for risk allocation; and
 - transparency and complexity.

Commission's preliminary position

- 4.87 The Commission's preliminary position was that the 2014 Network Price Determination will comprise a single building block of cost of service covering all network services (both transmission and distribution) provided by PWC Networks, applying where appropriate the provisions of Chapter 6 of the NER.
- 4.88 A single cost of service determination will be made for all regulated networks, rather than separate determinations for each network.
- 4.89 Whether the transmission charges should be distinguished from distribution charges and the case for location price signals (that is separate tariff schedules for each regulated network) will be dealt with in considering PWC Networks' network pricing principles statement and pricing proposal.

Views in submissions

- 4.90 Both PWC and QEnergy supported the use of a single determination covering both transmission and distribution and across all regulated networks. The NTMEU did not provide comment on this issue.
- 4.91 QEnergy noted that there would be some benefits in understanding the true costs of the Darwin-Katherine interconnected system, but agreed with the Commission that this could be accomplished through the pricing arrangements.
- 4.92 PWC advised that the asset specific information for transmission is not readily available and expressed the view that separate regulation of transmission would add a level of complexity that is not warranted for the scale of PWC's network.
- 4.93 PWC noted concerns have been raised with the Commission by customers and other stakeholders regarding PWC's current pricing structure, specifically with regard to locational price signals. PWC agreed that these concerns should be addressed through an examination of PWC's proposed tariffs, as opposed to a separate distribution determination for each network.

Commission's final decision

- 4.94 The Commission has decided that no change is necessary to this aspect of its preliminary position. The Commission will undertake a single building block of cost of service covering all network services (both transmission and distribution) and all regulated networks.

CHAPTER 5

Classification of services

- 5.1 A key requirement of network regulation is to clearly define the services subject to regulation. Different classes of services may be regulated in different ways.
- 5.2 This chapter sets out the Commission's preferred approach on the classification of network access services.³³

Requirements of the NT Access Code

Regulated Network Access Services

- 5.3 Regulated network access services mean all network access services supplied by a network service provider other than those specified by the Commission.³⁴
- 5.4 Standard network access services are the network access services for which reference tariffs are published in respect of a financial year, through a process overseen by the Commission.
- 5.5 The maximum tariffs for new or non-standard network access services are a matter for commercial negotiation between the network user and the network service provider, but are to be approved by the Commission in the case of an access dispute where the dispute relates (wholly or partly) to the tariff applying to those services.³⁵
- 5.6 The NT Access Code does not distinguish between transmission and distribution services, but includes both as network services.

Excluded Services

- 5.7 Clause 72 of the NT Access Code requires the Commission to determine excluded network access services, that is those services which, in the Commission's assessment, can be excluded from the cost base used for the purpose of calculating the revenue or price cap.
- 5.8 The two distinct types of excluded service are:
 - services which, in the assessment of the Commission, are subject to effective competition (contestable excluded services); and
 - services which, in the assessment of the Commission, are not subject to effective competition (non-contestable excluded services) but do not lend themselves to being regulated by the price control mechanism for regulated network access services.

³³ Includes combined transmission and distribution services.

³⁴ Clause 73(5) NT Access Code

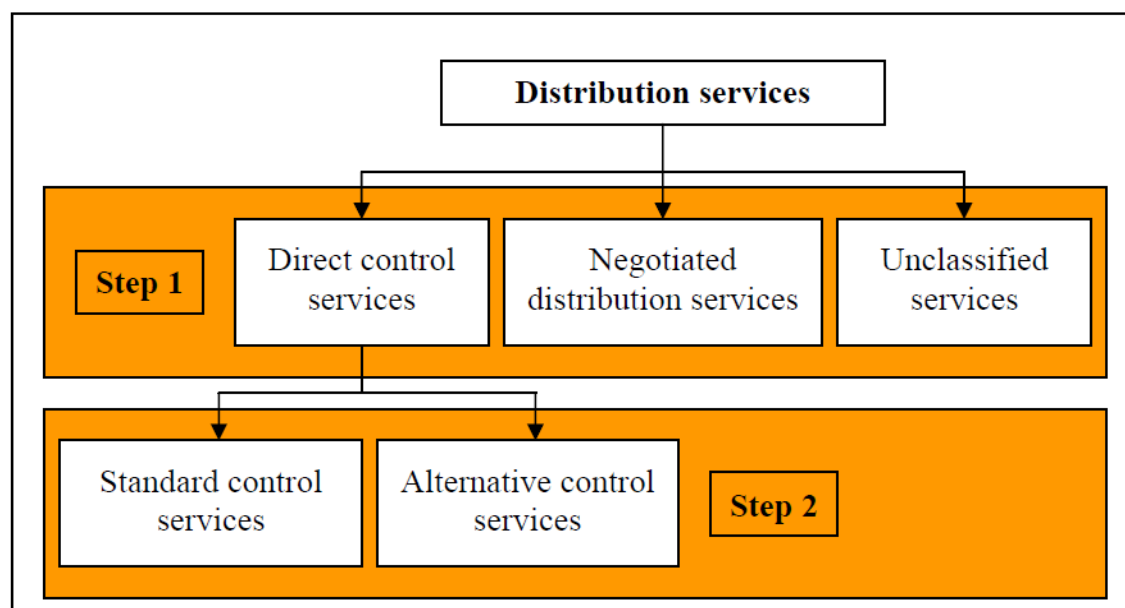
³⁵ *ibid* Clause 72 NT Access Code

- 5.9 The NT Access Code requires that the network service provider should provide any non-contestable excluded network access service to network users on fair and reasonable terms, with the Commission to determine what may constitute fair and reasonable if the network service provider and affected network user are unable to reach agreement.³⁶
- 5.10 Prior to 2009, standard network access services and excluded network access services were only described in broad terms, with detailed application in specific instances left to PWC Networks to determine.
- 5.11 In the 2009 Network Price Determination, the Commission re-expressed its Determination of Excluded Services in the terminology of the services classification used by the NER.

Requirements of the National Electricity Rules

- 5.12 In classifying distribution services under Chapter 6 of the NER, the AER considers two key aspects which are:
- the form of control that will apply to the service (i.e. a direct price or revenue control, a 'negotiate-arbitrate' framework, or no price or revenue control); and
 - whether the costs of providing the service should be recovered through tariffs paid by all customers (standard control service) or by a specific charge paid by the individual customer requesting the service (alternative control service).
- 5.13 The distribution service classification process is illustrated in figure 4.1 below:

Figure 5.1: AER classification of network access services



Source: NER

- 5.14 When classifying services, the AER must have regard to various factors including the form of regulation previously applied and the desirability for consistency. These factors are set out in clauses 6.2.1(c) and 6.2.2(c) of the NER.

³⁶ Clause 72 NT Access Code

- 5.15 The AER is required to undertake the classification process with a presumption in favour of the existing classification. That is, the AER makes an assessment of whether a different classification is more appropriate, rather than an assessment of the appropriateness of the existing classification.

Variation between NT Access Code and NER

- 5.16 Under the NT Access Code, any network access service that is not classified as an excluded network access service is, by default, included as a regulated network access service under the price cap. By contrast, under the NER any service that is not classified as either a direct control service or a negotiated distribution service defaults to an unregulated service.
- 5.17 Clause 6.1.4 of the NER also specifically prohibits a DNSP from charging a Distribution Network User distribution use of system charges for the export of electricity generated by the user into the distribution network. This does not, however, preclude charges for the provision of connection services.
- 5.18 The NT Access Code does not specifically prohibit use of system charges for the export of electricity into the network but, consistent with practice nationally, no such charges have been proposed or approved to date.

Summary of current arrangements

- 5.19 In the 2009 Network Price Determination, the Commission re-expressed its Determination of Excluded Services in the terminology of the services classification used by the NER. The requirements of the NT Access Code were aligned with the classifications of the NER as set out in Table 3.1 below.

Table 5.1: Network access services

NT Access Code	National Electricity Rules equivalent
standard network access services – which are regulated via a revenue or price cap	direct control services – standard control services
excluded network access services – the supply of which, in the opinion of the regulator, is not subject to effective competition but which do not lend themselves to being regulated by the revenue or price cap (clause 72(3))	negotiated distribution service (for above standard connection services), or direct control services – alternative control services (for various miscellaneous services specific to a particular customer)
excluded network access services – the supply of which, in the opinion of the regulator, is subject to effective competition (clause 72(2))	unregulated services

- 5.20 PWC Networks was required to submit a 'services classification proposal' to the Commission:
- proposing how the network services provided by PWC Networks should be distinguished according to the classification in Part B, Division 1 of the NER; and
 - setting out the reasons for any difference, if the proposed classification of PWC Networks' network services differed from the proposed classification as set out by the Commission.
- 5.21 PWC Networks classified services having regard to the form of regulation factors referred to in clause 6.2.1(c)(1) of the NER and set out in section 2F of the National Electricity Law. These factors are:
- (a) *presence and extent of any barriers to entry in a market for electricity network services;*
 - (b) *presence and extent of any network externalities (that is, interdependencies) between an electricity network service provided by a network service provider and any other electricity network service provided by the network service provider;*
 - (c) *presence and extent of any network externalities (that is, interdependencies) between an electricity network service provided by a network service provider and any other service provided by the network service provider in any other market;*
 - (d) *extent to which any market power possessed by a network service provider is, or is likely to be, mitigated by any countervailing market power possessed by a network service user or prospective network service user;*
 - (e) *presence and extent of any substitute, and the elasticity of demand, in a market for an electricity network service in which a network service provider provides that service;*
 - (f) *presence and extent of any substitute for, and the elasticity of demand in a market for, electricity or gas (as the case may be); and*
 - (g) *extent to which there is information available to a prospective network service user or network service user, and whether that information is adequate, to enable the prospective network service user or network service user to negotiate on an informed basis with a network service provider for the provision of an electricity network service to them by the network service provider.*
- 5.22 For the 2009 Determination, PWC Networks broadly agreed with the Commission's initial classifications with the exception that above-standard connection services should be classified as alternative control services, given the market characteristics of the Territory.
- 5.23 PWC Networks proposed that two categories of alternative control services be identified. The first category was those services (miscellaneous services) for which the cost of providing the service is known and for which a schedule of fees can be published. The second category was those services where the scale and scope of

each individual service is initially unknown and for which an assessment must be made of the work involved to determine the cost of delivery and a quote provided.

- 5.24 The Commission approved PWC Networks' proposed classification of services with two amendments:
- the classification of high load escort services as an alternative control service; and
 - the classification of disconnections and reconnections as a standard control service.

Commission's preliminary considerations

- 5.25 While regulated network access services (also referred to as standard network access services or prescribed services) can be directly aligned with direct control, standard control services, the classification of excluded services is less clear.
- 5.26 In classifying distribution services, the AER first considers the form of regulation (if any) previously applicable to the relevant service or services. Further, the classification should be consistent with the previously applicable regulatory approach.
- 5.27 The NT Access Code gives the Commission authority to determine which services are excluded services, but leaves pricing of these services to the network service provider in the first instance. Under clauses 6.2.1(c) and (d) of the NER, this would imply that non-contestable excluded services be classified as either unclassified services or, given that the Commission has a role in the case of disagreement or dispute, negotiated distribution services.
- 5.28 On the other hand, when the form of regulation factors set out in section 2F of the NEL are considered, the types of services previously classified as non-contestable excluded services in the Territory more closely align with alternative control services. There are significant barriers to entry (PWC holding the only network licence and a legislative restriction on any other party interfering with PWC's network), substantial market power is held by PWC, there are no substitutes and low elasticity of demand, and significant information asymmetries exist between the network service provider and the network user.

Commission's preliminary position

- 5.29 The Commission proposed to consider the classification of services provided by PWC Networks having regard to the form of regulation factors set out in section 2F of the NEL, without reference to the price control mechanism (or absence of price control) implied by the NT Access Code, consistent with the approach taken for the 2009 Network Price Determination.
- 5.30 For excluded services, the Commission proposed to continue with the 2009 service classification of alternative control services, but the Commission does not propose to apply any price control mechanism for these services. The Commission will provide guidance on whether or not a control mechanism submitted by PWC in its pricing proposal is consistent with the principles set out in the NT Access Code.
- 5.31 The Commission proposed to adopt the AER approach of classifying a class of activities, rather than the specific activities, allowing the specific definition or magnitude of services to change while maintaining the desired classification. The intention is to allow flexibility to PWC Networks to alter the exact specification (but not the nature) of a service during the regulatory control period.

5.32 The Commission proposed to continue with the service classifications that it adopted in the previous regulatory control period, while further clarifying the service descriptions. The Commission's preliminary position was that network services should be classified as set out in Table 4.2 below.

Table 5.2: Commission's preliminary position – 2014 Network Price Determination Classification of services

Service grouping	Negotiated distribution services	Direct control services – standard control services	Direct control services – alternative control services
Network services	Nil	Network services at mandated standard Energy-only service for public lighting	Above standard or non-standard network services
Connection services	Nil	Connection services at mandated standard	Above standard or non-standard connection services New or upgraded connection services (to the extent the user is required to make a financial contribution)
Metering services	Nil	Metering services at the mandated standard	Above standard or non-standard metering services
Fee-based services	Nil	Nil	Disconnection and reconnection Temporary supply services – low voltage Fault response – not service provider's fault Wasted attendance Provision, construction and maintenance of street lighting assets Non-standard data services Installation of minor equipment to network assets (eg Tiger Tails) Cable location services Unscheduled metering services – chargeable
Quoted services	Nil	Nil	High load escorts Covering of low voltage mains Rearrangement of network assets Ancillary metering services Supply enhancement Metering enhancement Emergency recoverable works Supply abolishment Temporary supply services – high voltage Rectifying illegal connections Unmetered supply services

Network Services

- 5.33 Network services are services provided over the shared network to all customers connected to the network. These include network planning, design, construction, maintenance and operation in accordance with good industry practice and to a mandated standard, as well as emergency response and administrative support.
- 5.34 The mandated standard is the standard required to meet the safety, quality and reliability of supply set by the Commission or by the NT Government either by licence conditions, codes or rules made from time to time, or any other relevant legislation.
- 5.35 Network services include controlling and ensuring that the characteristics (such as voltage and harmonics) of the electricity being transferred are suitable and within legislative limits, and undertaking associated activities to ensure the shared distribution network is fit for purpose, secure from interference, reliable in function and safe in operation.

Connection services

- 5.36 Connection services are services required to establish and maintain a connection point at which electricity is transferred to (entry) or from (exit) an electricity network, and include the commissioning of connection assets, service connection, installation inspection, and operating and maintaining connection assets.
- 5.37 Connection assets are all of the electrical equipment that is used to transfer electricity to or from the electricity network at the relevant connection point and includes any transformers or switchgear at the relevant point or which is installed to support or provide backup to such electrical equipment as is necessary for the transfer.
- 5.38 The mandated standard for connection services is the 'least overall cost, technically acceptable' service provided to a customer drawing all its normal energy requirements through the network at a standard of operation and maintenance of the network such as might be expected of a prudent operator in the industry.

Metering services

- 5.39 Metering services comprise meter provision services and metering data services. Metering provision services include the commissioning, provision and installation of metering and load control equipment and routine inspection, maintenance and repair meters and control equipment. Metering data services included metering reading and collation of data, processing and storage of energy data in a database and provision of data to those parties that have rights to access that data.
- 5.40 Metering provision, ownership and installation is a monopoly service provided by PWC Networks under the provisions of the Network Connection Technical Code. There is no separate accreditation of metering service providers in the Territory.
- 5.41 A customer who has an accumulation meter installed can opt to upgrade to an interval meter to allow them to transfer to a non-PWC retailer, but will need to pay the cost of the upgrade.
- 5.42 For the purposes of the service classification, the Commission proposes that PWC Networks publish on its website the type of metering installation that is standard for each customer class and the timetable, once known, for any changes to the standard classification for each customer class.

Fee-based services

- 5.43 PWC provides a number of fee-for-service functions in the event of a specific query from a customer or retailer. These services are provided to users for a fixed fee which is set out in a published price list.
- 5.44 Fee-based services include disconnection and reconnection, temporary supply services (low voltage), non-standard data services and unscheduled metering (chargeable). The full list of existing service fee-based services is included in the 2009 Regulatory Reset Final Determination.³⁷
- 5.45 A fixed fee can be set in advance for these services as they are homogenous in nature and scope, and specific prices for specific services can be calculated based on the estimated costs of delivering those services plus a margin.

Quoted services

- 5.46 In addition to the fee-based services described above, a network service provider also provides a range of services to retailers and customers for which the nature and scope cannot be known in advance irrespective of whether it is customer requested or the need is triggered by an external event (for example, price on application).
- 5.47 Quoted services include high load escorts, covering of low voltage mains, rearrangement of network assets, ancillary metering services and temporary supply services (high voltage). The full list of existing service quoted services is included in the 2009 Regulatory Reset Final Determination.³⁸

Views in submissions

- 5.48 Both PWC and QEnergy supported the Commission's proposed approach to continue with the service classifications that it adopted in the previous regulatory control period. The NTMEU did not comment on this matter.
- 5.49 QEnergy noted some concerns relating to the definition of some services and also suggested that PWC may have erred on the side of creating quoted fee arrangements for some services where a fixed fee arrangement could be sought.
- 5.50 PWC sought clarification on the Commission's proposed approach to escalation arrangements for alternative control services and also sought further explanation of what the Commission means by "further clarifying service descriptions."

Commission's further analysis

- 5.51 As discussed in its preliminary considerations above, the NT Access Code requires the Commission to determine which services are excluded services, also defined as alternative control services, but does not provide the Commission with a role in regulating the prices of these services unless a dispute arises.
- 5.52 Accordingly, the Commission does not intend to approve either the charges for alternative control services or the escalation arrangements to be applied to these by PWC in the fourth regulatory control period.

³⁷ Utilities Commission of the Northern Territory 2009 Regulatory Reset: Final Determination March 2009 page 119

³⁸ Ibid page 118

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- 5.53 However, details of the costs involved in delivering alternative control services will need to be identified by PWC in its regulatory proposal in documenting that costs are appropriately allocated.
- 5.54 While the Commission will not approve prices relating to alternative control services, the Commission will, if requested and if sufficient detail is available, provide its views on whether the Commission is likely to find the prices fair and reasonable were a dispute to arise.
- 5.55 With regard to the Commission requiring PWC to further clarify service descriptions, the Commission is concerned that it is not sufficiently clear to customers what constitutes a standard service and when additional charges are likely to be applied.
- 5.56 Further, it is likely that the standard service, particularly with respect to metering, may change over the course of the regulatory control period.
- 5.57 Full retail contestability (FRC) took effect in the Territory from 1 April 2010. While the Government sets the maximum price that can be charged by PWC to small and medium size customers, under FRC, all customers regardless of size, can negotiate with PWC or obtain supply from another electricity retailer, if another retailer is prepared to offer supply. The sole restriction, set out in the Electricity Retail Supply Code, is that a customer must have an interval meter to be able to transfer to a non-PWC retailer.
- 5.58 Currently, the Commission understands that only customers using more than 750MWh per annum have an interval meter as part of their standard service arrangements. While there may also be some customers below this threshold who also have interval meters installed, for example where a meter is due for replacement, the accumulation meter has been replaced with an interval meter, or an interval meter has been specifically requested by a customer, the majority of small business and domestic customers are currently on accumulation meters. Should such a customer wish to obtain supply from a non-PWC retailer, the meter would need to be upgraded at a cost to the consumer.
- 5.59 The Commission expects that over the course of the fourth regulatory control period, interval meters will be rolled out to customers with lower annual electricity usage. In other jurisdictions, interval meters are mandatory for at least customers with annual consumption above 160MWh per annum, and in some jurisdictions are being rolled out to all customers, including domestic customers.
- 5.60 While the Commission does not expect PWC to be able to provide details at this time, PWC's regulatory proposal should make clear the manner in which PWC proposes to deal with the roll-out of interval meters and other reasonably foreseeable issues (such as market changes related to increase competition, technological change) that may impact on the provision of network access services over the regulatory control period.
- 5.61 Further clarification of service definitions may also go some way to addressing the concerns raised by QEnergy. PWC may also be aware of issues raised by customers that could be addressed by more detailed descriptions of services.

Commission's final decision

- 5.62 The Commission has decided that no change is necessary to this aspect of its preliminary position. The Commission will continue with the service classifications that it adopted in the previous regulatory control period.

CHAPTER 6

Form of control mechanism

- 6.1 This chapter sets out the Commission's final decision on the form of control to be applied to the network service provider's regulated network access services (that is those services which would be classified as direct control, standard control services under the NER). For simplicity, the NEM terminology 'standard control services' has been adopted when referring to these services in this chapter.

Requirements of the NT Access Code

- 6.2 The NT Access Code provides that the regulator is responsible for determining the revenue or price caps to apply to the network service provider.³⁹
- 6.3 However, the NT Access Code is less prescriptive regarding the methodology by which the revenue or price caps that are to apply during the second and subsequent regulatory control periods are to be determined.
- 6.4 More specifically, the methodology is to be determined by the Commission in a manner that most effectively achieves the outcomes of the NT Access Code and is consistent with generally accepted regulatory practice.⁴⁰
- 6.5 The Commission is of the view that 'generally accepted regulatory practice' at this time is represented by the provisions of the NER and associated processes administered by the AER.
- 6.6 A revenue or price cap applies only to tariffs and charges for regulated network access services.⁴¹ 'Regulated network access services' means all the network access services supplied by a network service provider other than those specified by the regulator as excluded services under clause 72 of the NT Access Code.
- 6.7 The NT Access Code requires that the network service provider should provide any non-contestable excluded services to network users on fair and reasonable terms, with the Commission to determine what may constitute 'fair and reasonable' if the network service provider and affected network user are unable to reach agreement.⁴²
- 6.8 The Commission is of the view that the NT Access Code does not authorise it to regulate prices for the services other than regulated network access services, but rather to determine what is fair and reasonable if the network service provider and affected network users are unable to reach agreement on such terms.

³⁹ Clause 66(1) NT Access Code

⁴⁰ Clause 66(3) NT Access Code

⁴¹ Clause 67 NT Access Code

⁴² Clause 72 NT Access Code

- 6.9 The NT Access Code further provides that, where the network access services required differ in some regard to the relevant standard network access services or where the circumstances associated with the provision of standard network access services may give rise to cost savings on the part of the network service provider, the tariffs to apply in those circumstances are to be matters for commercial negotiation between the network user and the network service provider.⁴³
- 6.10 The NT Access Code provides a role for the Commission in the case of an access dispute where the dispute relates (wholly or partly) to the tariff to apply to those services where the maximum tariffs to apply to new or non-standard network access services can be approved by the regulator.⁴⁴

Requirements of the National Electricity Rules

- 6.11 Control mechanisms in the NER comprise two parts:
- the form of control mechanism; and
 - the basis of the control mechanism.
- 6.12 Clause 6.2.5(b) of the NER lists the available options for the **form** of control, which are:
- a schedule of fixed prices;
 - caps on the prices of individual services;
 - caps on the revenue to be derived from a particular combination of services;
 - tariff basket price control;
 - revenue yield control; or
 - a combination of any of the above.
- 6.13 The forms of control mechanism available for standard and alternative control services are the same. The **basis** for the control mechanism, however, can differ depending on which class of services it is to apply to.

Standard control services

- 6.14 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 of the NER, which sets out the building block approach to the regulation of services.
- 6.15 A building block determination is to include the X factor for each control mechanism for each regulatory year of the regulatory control period.⁴⁵
- 6.16 A building block determination for a DNSP is to specify:
- the annual revenue requirement for each regulatory year of the regulatory control period;
 - appropriate methods for the indexation of the regulatory asset base;
 - how any applicable EBSS, STPIS, or DMIS are to apply to the DNSP;

⁴³ Clause 73(4) NT Access Code

⁴⁴ Clause 73(5) NT Access Code

⁴⁵ Clause 6.5.9(a) NER

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- the commencement and length of the regulatory control period; and
 - any other amounts, values or inputs on which the building block determination is based.⁴⁶
- 6.17 The X factor must be set by the AER with regard to the DNSP's total revenue requirement for the regulatory control period and must be such as to minimise, as far as reasonably possible, variance between expected revenue for the last regulatory year of the regulatory control period and the annual revenue requirement for that last regulatory year.
- 6.18 For standard control services, the X factor must be designed to equalise (in terms of net present value) the revenue to be earned by the DNSP from the provision of standard control services over the regulatory control period with the provider's total revenue requirement for the regulatory control period.⁴⁷
- 6.19 There may be different X-factors for different regulatory years of the regulatory control period.⁴⁸
- 6.20 The AER must prepare and publish a post-tax revenue model.⁴⁹
- 6.21 The annual revenue requirement for a DNSP for each year of the regulatory control period must be determined using a building block approach, where the building blocks are:
- indexation of the RAB;
 - a return on and return of capital for that year;
 - estimated cost of corporate income tax of the provider for that year;
 - the revenue increment or decrements (if any) for that year arising from the application of any EBSS, STPIS and DMIS;
 - the other revenue increments or decrements (if any) for that year arising from the application of a control mechanism in the previous regulatory control period; and
 - the forecast operating expenditure for that year.⁵⁰
- 6.22 Under a building block approach, costs (made up of return on capital, return of capital or depreciation, and efficient operating expenditure) and demand are forecast to determine the service provider's costs of supply, and prices are set such that forecast revenues equate to forecast costs.
- 6.23 The NER requires that a DNSP's building block proposal includes the total forecast capital expenditure for the relevant regulatory control period which the DNSP considers necessary to:
- meet or manage the expected demand;
 - comply with all applicable regulatory obligations or requirements;
 - maintain the quality, reliability and security of supply; and
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⁴⁶ Clause 6.3.2(a) NER

⁴⁷ Clause 6.5.9(b) NER

⁴⁸ Clause 6.5.9(c) NER

⁴⁹ Clause 6.4.1(a) NER

⁵⁰ Clause 6.4.3(a) NER

- maintain the reliability, safety and security of the distribution system.⁵¹
- 6.24 The AER is required to accept the forecast of capital expenditure of a DNSP if it is satisfied that the total of the forecast capital expenditure for the required control period meets certain criteria defined in Chapter 6 of the NER, that is:
- it reasonably reflects the efficient costs of achieving the capital expenditure objectives;
 - the costs are prudent; and
 - it reflects a realistic expectation of the demand forecast and cost input required to achieve the capital expenditure objectives.
- 6.25 The rule change determination by the AEMC published on 29 November 2012⁵² includes amendments affecting the treatment of capital expenditure forecasts that:
- include in the NER a number of "tools" the AER can apply to provide adequate incentives for NSPs to spend capital expenditure efficiently, having regard to an overall capital expenditure objective; and
 - clarify and remove ambiguities regarding the powers of the AER to interrogate, review and amend capital expenditure and operating expenditure proposals submitted by NSPs.

Alternative control services

- 6.26 While for standard control services the AER must have regard to the need for efficient tariff structures, for alternative control services the AER must instead have regard to the potential for development of competition in the relevant market, and how the control mechanism might influence that potential.
- 6.27 The control mechanism must have a basis specified in the distribution determination which may, but need not, utilise a prospective CPI minus X form, or some incentive-based variant thereof, or be based on a forward looking building block approach.

Summary of current arrangements

- 6.28 For the 2009 Network Price Determination, the Commission continued the price cap form of price control for standard control services that had been applied in the second regulatory control period.
- 6.29 The Commission took the view that, by placing the management of volume risk with the network service provider, the tariff basket approach promotes network service provider management autonomy and accountability, and provides the flexibility, within the overall price cap, to respond to market developments.
- 6.30 The 'tariff basket' index form of the price control is a mechanism which represents the weighted average of each year's network prices and involves the use of two years' lagged quantity weights.

⁵¹ Clause 6.5.7(a) NER

⁵² Australian Energy Market Commission Final Position Paper National Electricity Amendment (Economic Regulation of Network Service Providers) Rule 2012 and National Gas Amendment (Price and Revenue Regulation of Gas Services) Rule November 2012 page v

- 6.31 The 2009 Network Price Determination required that during the third regulatory control period, PWC Networks annually develop network tariff schedules for standard control services such that the tariff basket index calculated conforms with a determined constraint equation.⁵³
- 6.32 In addition to complying with a constraint equation, the weighted average tariff for each individual end-use customer is also required to comply with a $CPI - X + Y$ side constraint, where Y is:
- in relation to 2009-10: $Po + 2\%$; and
 - in relation to each of the four years after 2009-10: 2%.
- 6.33 The 2009 Network Price Determination also required that the proposed structure of network access tariffs be consistent with the Commission's approved Pricing Principles and Methods Statement.
- 6.34 Under clause 6.2.6(a) of the NER, the control mechanism to be used for standard control services must be of the CPI minus X form or some incentive-based variant. The Commission considered this requirement and applied a price constraint equation consistent with this requirement.
- 6.35 However, while the NER requires that the X -factor must be determined by a forward-looking, multi-year 'cost of service' building block analysis, in 2009, the Commission was not confident that PWC could provide robust data for a full forward looking building block approach and determined:
- a cost-based 'base year' adjustment (Po) of the weighted average of network access tariffs at the end of the previous regulatory control period reflecting an updated single year building block analysis of the most recently available actual data; and
 - a X -factor based on externally-benchmarked expected efficiency improvements derived by applying the TFP approach, with the same value of X being applied for each year of the regulatory control period.

Commission's preliminary considerations

- 6.36 The NT Access Code states that price regulation should be administered to achieve, among other things, "*reasonable certainty and consistency over time of the outcomes of regulatory processes*".⁵⁴ Reasonable certainty and consistency in approach by a regulator creates a more stable and predictable regulatory environment for both the network service provider and customers.
- 6.37 While the Commission considered that there is value in regulatory consistency for a weighted average price cap form of price control to be applied in the 2014 Networks Price Determination, it also noted the need to consider what is deemed to be generally accepted regulatory practice in the form of price control adopted by the AER (including an annual revenue requirement determined by a forward building block approach).

⁵³ Utilities Commission of the Northern Territory 2009 Regulatory Reset: Final Determination March 2009 page 36

⁵⁴ Clause 63 NT Access Code

Form of Price Control

- 6.38 In the first regulatory control period, the NT Access Code mandated the use of a fixed revenue cap form of price control. In the second and third regulatory control periods, the Commission has used a weighted average price cap form of price control.

Fixed revenue cap

- 6.39 Under a fixed revenue cap, the network service provider's income is fixed regardless of how much electricity it distributes. While the network service provider faces an incentive to reduce total costs (lower total costs increases total profits), a possible means of achieving lower costs is to restrict output which could result in an inefficient utilisation of the network service provider's existing asset base.
- 6.40 A fixed revenue cap may also be more conducive to the development of demand management options, and there are positive environmental aspects to the absence of volume incentives.

Weighted average price cap

- 6.41 There are advantages and risks associated with the use of a weighted average price cap. Advantages of a weighted average price cap form of price control include:
- a direct link between the revenue earned and the tariff structure, creating an incentive to set tariff structures to reflect the underlying cost structure in order to minimise profit risk;
 - placing the management of volume risk with the network service provider and promoting network service provider management autonomy and accountability, and providing the flexibility, within the overall price cap, to respond to market developments; and
 - providing a basis for price movements over time that is readily understandable to end users.
- 6.42 Risks of a weighted average price cap include:
- exposing the network service provider to volume risks if electricity sales fall below forecasts; and
 - creating incentives for the network service provider to set prices to encourage an increase in electricity usage or to favour high volume users over low volume users.

Basis of Price Control

- 6.43 Clause 6.2.6 of the NER requires 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.
- 6.44 The price constraint equation used by the Commission is consistent with this requirement. At issue however, is the manner in which the X-factor is determined.
- 6.45 The NER mandates that the X-factor must be determined by a forward-looking, multi-year 'cost of service' building block analysis. Alternatively, an X-factor based on externally benchmarked expected efficiency improvements can be derived by applying the TFP approach.
- 6.46 A full forward building block would require PWC Networks to specify the annual revenue requirement for each regulatory year of the regulatory control period. In

contrast, a less data-intensive TFP-based approach to determining the X-factor would provide continuity and consistency across the next regulatory control period.

Forward Building Block Approach

- 6.47 The Commission notes that the building block approach currently used elsewhere in Australia has been well tested and sets a precedent for best practice network price regulation. It also provides transparency and certainty for network users.
- 6.48 It provides a comprehensive assessment of costs that can be tailored to the circumstances of individual service providers, while allowing the regulator to rigorously test the costs submitted. The cost-based framework provides certainty for the service provider and can be aligned with the service provider's internal planning decisions, as well as having the flexibility to include provisions related to any incentive schemes.
- 6.49 A building block approach can also include both current and future development needs and caters for the 'lumpy' nature of capital investment in network infrastructure.
- 6.50 A concern with the building block approach is the inefficiency, uncertainty and administrative cost of regulatory processes due to the need to develop forecasts of firm-specific efficient operating and capital costs, corporations tax, and forecast demand, since these cannot be based on 'known and measurable' information.
- 6.51 The Commission acknowledges that implementation of a complete forward building block approach requires a significant level of resources for the Commission and PWC Networks.
- 6.52 The Commission also notes that PWC has made progress in developing its data systems, and considers that PWC Network's capability to deliver reliable information has significantly improved. However, the Commission is also aware that PWC is implementing a number of initiatives which could affect its data provision capabilities (for example the Asset Management Capability project, further development of network asset management plans, implementation of recommendations from the Government's work program reviews) and that these may not be in place or be sufficiently advanced when the work on the 2014 Network Price Determination commences.

TFP-based approach

- 6.53 The Commission notes that a TFP methodology has the potential to create stronger incentives for service providers to pursue cost efficiencies compared to a building block approach. Efficiencies could be achieved when a network service provider makes investments and improves operating practices which deliver productivity improvements.⁵⁵
- 6.54 The main benefit of a TFP-based approach in the Territory is regulatory consistency with the current regulatory control period. It also reduces the need for the Commission and the network service provider to undertake a resource intensive

⁵⁵ Australian Energy Market Commission, Final Report, Review into the use of total factor productivity for the determination of prices and revenues, 30 June 2011

process of considering the firm-specific costs and revenues, but would nevertheless require considerable review of benchmarking techniques.

Commission's preliminary position

- 6.55 In line with its general approach to align the Territory's regulatory framework with the NEM arrangements, the Commission's preliminary view was to adopt, where possible, the approach used by the AER and on the application of Chapter 6 of the NER. This would include a weighted average price cap form of price control with a side constraint on the corresponding weighted average tariff for individual end-use customers and a forward looking building block approach basis for the price control.
- 6.56 The Commission was mindful that, as a small jurisdiction, the Commission and PWC have limited resources available (both internally and externally) to undertake a forward-looking building block approach as applied by the AER.
- 6.57 At the time of the 2009 Network Price Determination when the Commission adopted a TFP-based approach, the AEMC had scheduled a review of the use of TFP-based methods as an alternative to the cost of service building block approach, and Victoria was in the process of finalising a rule change application to include TFP approaches in the NER. The Commission considered that, in terms of both generally accepted regulatory practice and the direction in which the NER might be moving, a TFP-based approach was acceptable.
- 6.58 Subsequently, in December 2011, the AEMC decided not to make a draft rule in response to the Victorian rule change request. The AEMC took the view that the necessary conditions for applying a TFP approach were not present and considered that a sufficiently robust and consistent dataset to support TFP did not yet exist.
- 6.59 The Commission considered that regulatory practice has now moved on, and that a TFP approach cannot be considered to represent generally accepted regulatory practice in Australia at this time. The Commission's view is that the most practical course is to adopt a forward building block approach using similar processes and practices as those applied by the AER, but noting that full adoption of the AER processes may not be possible and variations may be required.
- 6.60 The Commission intended to seek advice from the AER on how similar processes and practices can be applied to the Territory's context.

Views in submissions

Form of Price Control

- 6.61 Neither PWC (in its supplementary submission) nor QEnergy supported continuation of a weighted average price cap form of price control, with both advocating for a revenue cap although for different reasons. The NTMEU did not comment on this matter.
- 6.62 PWC's concerns related to the significant revenue risk in what it characterised as a period of uncertain economic growth and sales outcomes. PWC expressed concern that any variation between forecast sales volumes and actual sales volumes over the five year regulatory control period could detrimentally impact on revenue and compromise PWC's ability to provide the service customers require. PWC noted that customer response to increasing electricity prices and demand management

initiatives, as well as the increased number of small-scale solar photovoltaic systems installed have resulted in decreasing electricity consumption.

- 6.63 PWC also noted that the AER's Preliminary Positions – Framework and Approach paper proposed to alter the form of price control for the 2014 determinations for NSW and ACT distributors from a weighted average price cap to a revenue cap. PWC advised that the principal reason the AER has advanced for proposing this change is that it considers that a weighted average price cap provides a lower likelihood of a DNSP recovering its efficient costs.
- 6.64 QEnergy proposed that the weighted average price cap not be continued on the basis that it provides the network service provider with incentives to rebalance its process in a way that maximises revenue.

Basis of price control

- 6.65 Both PWC and QEnergy supported the use of a forward looking building block assessment to determine revenue for the fourth regulatory control period. The NTMEU did not comment on this matter, but the Commission notes that the NTMEU previously advocated the use of a building block over a TFP-based approach for the 2009 determination,
- 6.66 QEnergy noted that the Commission's move to a forward looking building block assessment away from a TFP based approach will in all likelihood result in a large step increase in network prices unless it is countered with a very careful review of the efficiency of PWC's overall operations. QEnergy expressed the view that principles of prudence and efficiency will need to be rigorously applied if price increases are to be avoided.
- 6.67 PWC acknowledged that there are a number of initiatives underway, as identified by the Commission, that will impact on its capabilities to deliver information. However, PWC considers that sufficiently reliable financial and other supporting data can be provided in order for efficient and reliable X factors to be determined for the next regulatory control period.

Commission's further analysis

- 6.68 The Commission notes that there is general agreement on the basis of the price control ie. the use of a prospective CPI minus X form of control mechanism and a forward-looking, multi-year 'cost of service' building block analysis to determine the X factor.
- 6.69 At issue is the form of price control regulation to be adopted for the fourth regulatory control period.
- 6.70 The Commission notes the views of stakeholders that a revenue cap form of price control is most likely to provide the network service provider with sufficient (PWC) but no more (QEnergy), revenue to operate and maintain the network at a standard consistent with good electricity industry practice.
- 6.71 The Commission also places considerable weight on the research and analysis undertaken by the AER in deciding to move from a weighted average price cap to a revenue cap form of price control for NSW and ACT distribution network service providers.
- 6.72 The Commission has discussed this directly with the AER. The AER's consideration revealed both positive and negative attributes associated with the revenue cap and

- the weighted average price cap. It is understood, the AER's key conclusion is that the benefits from a higher likelihood of recovery of efficient costs under a revenue cap outweigh the detriments of within period price instability and weak efficient pricing incentives.
- 6.73 Under a weighted average price cap, revenue varies with the volume of sales. The AER considers that, since the majority of a DNSP's costs are fixed and are not responsive to small variations in the volume of sales, profit under a revenue cap is likely to be more stable and revenue is closer to efficient costs.
- 6.74 Under a weighted average price cap, volume forecasts at the time of the regulatory determination are more critical than under a revenue cap. If the forecasts over-estimate demand, the network service provider will not have sufficient revenue, while if forecasts under-estimate demand, the network service provider will receive windfall gains.
- 6.75 Given current uncertainties surrounding the impact of recent retail price increases and the uncertainty of the outcomes arising from the Government's review of PWC, the Commission is not confident that volume forecasts would be sufficiently robust to underly the setting of the price constraint over the entire five year regulatory control period.
- 6.76 Price caps encourage discrimination to provide flexibility and encourage technical innovation. They promote the development of different products and efficient pricing. However, the AER noted that the theoretical incentives for efficient pricing provided by the weighted average price cap have resulted in little practical benefit in DNSPs' pricing in the NEM, with analysis indicating that, in the previous regulatory control period, which exhibited increasing sales volumes, and therefore increased opportunity for tariff rebalancing, pricing structures became less efficient.⁵⁶
- 6.77 Similarly, there is little evidence of the weighted average price cap of the last two regulatory control periods in the Territory having any significant impact on the efficiency of pricing structures or innovation in service offerings. The current tariff classes and tariff structure have been in place with minimal change since the commencement of the current regulatory regime.
- 6.78 The main drawback of a revenue cap form of price control is the possibility of price instability within the regulatory control period due to the operation of the under's and over's account whereby any over-recovery (under-recovery) is deducted (added) from the regulated revenue in future years.
- 6.79 The Commission notes, however, that the AER's analysis shows that the magnitude of adjustments in the over's and under's account are minor when compared to other factors. Further, in the Territory, Government subsidies at the retail level mean that the price signals delivered by the network tariffs are largely washed out.

⁵⁶ Australian Energy Regulator, Preliminary Positions – Framework and Approach paper – Ausgrid, Endeavour Energy and Essential Energy Regulatory control period commencing 1 July 2014 Ausgrid, June 2012 page 47

Commission's final decision

- 6.80 The Commission will apply a revenue cap form of control mechanism for standard control services on the basis that:
- network costs are largely fixed, and given that the effect on demand of foreshadowed increases in retail prices is largely unknown at this time, making robust demand forecasting difficult, a revenue cap is more likely to provide PWC with sufficient revenue, but no more;
 - while a revenue cap can lead to more price volatility, price signals to end use customers are largely washed out of final retail prices; and
 - it is consistent with current views of the AER and expected future direction in the NEM.
- 6.81 Any variation between the maximum allowable revenue (MAR), as determined by the Commission, and the actual revenue collected by the network service provider is to be monitored in the under's and over's account. PWC must provide information on this account to the Commission as part of their annual pricing proposals.
- 6.82 If the under/over recoveries compared to the MAR for year t are:
- less than 2 per cent, the under/over recovery will be cleared within one regulatory year
 - between 2 per cent and 5 per cent, the under/over recovery can be spread over two regulatory years
 - greater than 5 per cent, PWC must submit a plan to the Commission detailing how it proposes to clear the balance of the under's and over's account.
- 6.83 A notional interest charge, or an interest credit as appropriate, will be applied on the cumulative balance at the end of each financial year.
- 6.84 A side constraint will also be applied such that the weighted average price for each individual end-use customer for a particular year of the regulatory control period is not to exceed the corresponding weighted average price for that individual end-use customer for the preceding regulatory year by more than a permissible percentage.
- 6.85 The basis of the control mechanism will be of the prospective CPI minus X form.
- 6.86 The Commission will adopt a forward-looking building block approach using similar processes and practices as applied by the AER, but noting that full adoption of the AER processes may not be possible and variations may be required.
- 6.87 The Commission will not apply any price control mechanism for services other than standard control services.

CHAPTER 7

Key parameters

- 7.1 In the NEM, a number of models and guidelines have been published to provide guidance on other factors and key parameters relevant to the determination process.
- 7.2 In the absence of similar models and guidelines in the Territory, this chapter considers the key parameters and issues which are integral parts of the network price or revenue determination for the regulatory control period and sets out the Commission's preferred approach on these matters., including:
- application of the post-tax revenue model (PTRM);
 - the treatment of the regulatory asset base (RAB) and the roll-forward model (RFM);
 - forecast capital expenditure and the regulatory investment test (RIT);
 - weighted average cost of capital (WACC) and the treatment of corporate tax;
 - depreciation;
 - forecast operating expenditure;
 - cost allocation;
 - driving improvements in reliability (STPIS);
 - providing incentives for demand management (DMIS);
 - sharing the benefits of efficiency gains (EBSS); and
 - treatment of pass-through costs.
- 7.3 The approach taken by the AER for each of the above is well developed with guidelines, models and schemes in place to assist network service providers and their customers to understand the AER's approach to the regulation of electricity distribution businesses under the NER.
- 7.4 Each of these guidelines, schemes and models apply to all reset determinations under the NER unless there is persuasive evidence to depart from them at the time of the reset determination.
- 7.5 In developing these guidelines, models and schemes, the AER undertook extensive consultation. Unless significant concerns arise, the Commission's preferred approach will be to adopt the approaches and models established by the AER, modified to the minimum extent necessary to accommodate Territory circumstances.

Post-tax revenue model (PTRM)

- 7.6 The AER published its post-tax revenue model (PTRM) for distribution and accompanying handbook in June 2008, in accordance with clause 6.4.1(c) of the NER. An amended version was released in June 2009.

- 7.7 The PTRM is used to propose and determine the annual revenue requirement (ARR) to be used in setting the X factor for each regulatory year of the regulatory control period.
- 7.8 The PTRM calculates the ARR for each regulatory year of a regulatory control period using the building block approach. Under clause 6.4.3 of the NER, these building blocks are:
- indexation of the regulatory asset base (RAB);
 - the return on capital;
 - the return of capital (depreciation);
 - the estimated amount of corporate income tax payable;
 - any revenue increments or decrements arising from the application of the EBSS, STPIS and DMIS;
 - any revenue increments or decrements arising from the application of a control mechanism in the previous regulatory control period; and
 - forecast operating expenditure.

Commission's preliminary position

- 7.9 The Commission's preliminary position was that a post-tax revenue model (PTRM), largely modeled on the AER's published PTRM and its accompanying handbook, be adopted for use by the network service provider in the 2014 Network Price Determination.
- 7.10 Any modifications of the AER's PTRM would be based on PWC Networks' capacity to provide information equivalent to that required under the NER. The Commission proposed to make only the minimum modifications necessary such that the modified requirements can be met by PWC Networks.

Views in submissions

- 7.11 The NTMEU queried the use of pre and post-tax models, on the basis that PWC is a government-owned corporation that pays no tax. As such, any tax allowed for in the revenue stream just increases the return to Government as shareholder and effectively imposes indirect taxation on electricity consumers.
- 7.12 That said, the NTMEU indicated a preference for the use of a post-tax model as this reduces the amount of tax included in the revenue stream.
- 7.13 QEnergy also supported the use of the AER's PTRM.
- 7.14 PWC however, proposed that the adoption of a post-tax approach be delayed until the next regulatory control period (the 2019 Network Price Determination) and a pre-tax approach be used for the 2014 Network Price Determination.
- 7.15 PWC advised that PWC Networks is not a separate tax entity and PWC's tax liability is calculated at the Corporation level. There is currently no networks tax asset base and one would need to be calculated, which PWC advised is a labour intensive task that would need to be undertaken by staff that are tax specialists.
- 7.16 PWC advised that the resources needed to gather and prepare data on a post-tax basis would be significant and that the introduction of this aspect of the NER cannot currently be met by PWC without introducing unwarranted complexity.

- 7.17 PWC advocated that a less information intensive pre-tax framework be adopted, allowing PWC and the Commission to focus on areas of higher priority for the 2014 Network Price Determination.
- 7.18 PWC advised that it is moving towards a post-tax framework for all its business units and will commit to undertake the transition to a post-tax approach for the 2019 Network Price Determination.

Commission's further analysis

- 7.19 The Commission notes the NTMEU comments on PWC's status as a Government-owned corporation.
- 7.20 PWC operates under the national tax equivalent regime. This is an intergovernmental arrangement that notionally applies federal income tax laws to nominated state and territory government businesses. It is administered by the Australian Taxation Office in line with a memorandum of understanding with state and territory governments. The basis of the national tax equivalent scheme is to ensure that government-owned entities operate on a level playing field with comparable privately owned firms.
- 7.21 Under the NER, no distinction is made between tax payable by privately owned firms and tax equivalents paid by government-owned firms. The Commission is not convinced that there are sufficient grounds to depart from this aspect of the national framework.
- 7.22 On the question of the ability of PWC to provide data to support a post-tax approach, the Commission reluctantly accepts that this may not be practicable at this time. The Commission's view is that PWC would have been aware of the intention to move to a post-tax approach and alignment with the NER since at least the last determination. However, the Commission considers that there is cause for concern that robust data would not be provided in sufficient time for the price determination decision to be made and that it would be prudent to defer the full implementation of the post-tax approach until 2019.
- 7.23 The Commission expects that PWC's regulatory proposal will include a project plan and timeframes to transition to a post-tax asset base for the regulated networks business well in advance of the 2019 determination process.

Commission's preferred approach

- 7.24 The Commission preferred approach is that a pre-tax revenue approach be adopted for use by the network service provider in the 2014 Network Price Determination.
- 7.25 The Commission, in consultation with PWC and seeking assistance from the AER where necessary, will modify the AER's PTRM to accommodate a pre-tax approach. All other information requirements underlying the PTRM will remain unchanged, and a modified pre-tax model suitable for publication will form part of PWC's regulatory proposal, consistent with requirements in the NEM.

Initial Regulatory Asset Base

- 7.26 It is common practice in other jurisdictions for an opening RAB value to be set at a point in time (sometimes in legislation) and not revisited. The 2004 Network Price Determination included provision for what was termed an asset valuation 'off-ramp' which allowed for a one-off adjustment to the value of the network price cap were

the Commission to find that there had been a material error in the asset values underlying its 2004 decision.

- 7.27 In early 2005, the Commission undertook a review which found that both PWC and the Commission had erred in the approach adopted to regulatory asset values and valuation during the 2004 Network Price Determination. Following an extensive consultation process, the Commission concluded that the most appropriate regulatory asset value from the plausible range is the asset value that would be sufficient (but no more) to ensure the ongoing financial viability of PWC Networks (the Off-ramp Decision).⁵⁷
- 7.28 The Commission's final decision⁵⁸ was the adoption of a regulatory asset valuation methodology for PWC's electricity network assets that for:
- sunk assets (in practice, assets in place at 1 July 2002), valued such assets at an amount that at least ensures cashflows that are sufficient to comfortably meet certain debt and equity return benchmarks; and
 - assets acquired after 1 July 2002, valued all such assets at depreciated current cost.

Commission's preliminary position

- 7.29 Consistent with the approach applied for the 2009 Network Price Determination, the Commission did not intend to reconsider re-opening the initial regulatory asset base, set at \$350 million (excluding gifted assets) as at 1 July 2002 (in July 2002 dollars).

Views in submissions

- 7.30 Neither QEnergy or the NTMEU provided comment on this matter.
- 7.31 PWC disagreed with the Commission and argued that the Commission should re-open the initial regulatory asset base if PWC can demonstrate that basing the required revenue calculation on the initial value of \$350 million as at 1 July 2002 is not sufficient to ensure PWC Networks' ongoing commercial viability.

Commission's further analysis

- 7.32 It is now ten years since the initial RAB was set. The Commission notes that this time has been a period of significant capital investment by PWC and that all investments since 1 July 2002 have been rolled into the asset base at cost. The initial RAB value does not impact in any way on the returns on investments made by PWC's board and management since corporatisation in 2002.
- 7.33 The Commission also notes that for NEM jurisdictions, the initial RAB is set in legislation and cannot be re-opened.
- 7.34 As part of the 2009 Determination process, the Commission considered PWC's financial viability arguments and updated its model using new data provided by PWC at that time. The Commission found no reason to re-open the initial RAB.

⁵⁷ Utilities Commission, Networks Pricing: Asset Valuation Off-ramp Final Decision Statement of Reasons, April 2005 page 3

⁵⁸ Utilities Commission, Networks Pricing: Asset Valuation Off-ramp Final Decision Statement of Reasons, April 2005 page 3

- 7.35 The Commission's 2005 Off-ramp Decision found that there was not a single correct regulatory asset value, but rather a range of plausible values:
- at the lower bound, the book value of those assets; and
 - at the upper bound, the true DORC value of those assets.
- 7.36 The Commission took the view that the ongoing financial viability of PWC Networks required that business to be in a position to sustainably generate cashflows sufficient to justify at least a single-A credit rating on a stand-alone basis.
- 7.37 In updating the model for the 2009 Determination, the Commission found that:
- the initial RAB (of \$350m) remains capable of generating net cashflows in excess of the minimum necessary to ensure at least a single-A stand-alone credit rating, and so ongoing financial viability; and
 - use of the latest DORC value would give rise to cashflows that would sustain a triple-A credit rating for PWC's regulated network business. The ultimate beneficiary of such excessive net cashflows would be the NT Government as PWC's owner. The resultant excessive dividend stream would be the equivalent of an additional tax on electricity usage in the Territory.
- 7.38 The Commission considers that PWC's arguments have been addressed both in April 2005 in setting the initial RAB and again as part of the 2009 Network Price Determination..
- Commission preferred approach*
- 7.39 The Commission re-affirms that it does not intend to reconsider re-opening the initial regulatory asset base, set at \$350 million (excluding gifted assets) as at 1 July 2002 (in July 2002 dollars).

Recognition of capital expenditure incurred in the current regulatory control period

- 7.40 PWC Networks is undertaking a large capital expenditure program in the current regulatory control period. A key issue is whether the full amount of this capital expenditure should be rolled into the RAB regardless of efficiency, or whether some level of optimisation should be undertaken.
- 7.41 To address concerns that the write-down of sunk assets engenders a significant degree of regulatory uncertainty and risk, with the potential for adverse implications for future investment in regulated infrastructure, the Commission's Off-ramp Decision in 2005 provided that all investments made in network assets since 1 July 2002 would be recognised at cost under the Commission's roll forward approach, thereby providing appropriate incentives for future investment by PWC Networks.
- 7.42 This is consistent with the current requirements of the NER, with all actual capital expenditure incurred within a regulatory control period being automatically rolled into the asset base at the start of the next period, regardless of whether the expenditure is greater than the amount allowed for in the regulatory determination and whether it is efficient.

- 7.43 However, the Commission noted that the AEMC is currently considering a rule change proposal⁵⁹ to amend rules for the economic regulation of network services, including whether all actual capital expenditure should be recognised regardless of efficiency.
- 7.44 Once a capital expenditure allowance is set as part of a revenue determination, network service providers are not prevented from undertaking capital expenditure beyond such allowance. After a period of time, any such 'overspend' is automatically factored into overall revenues and prices for the network service provider. The AER is concerned that this creates incentives for network service providers to incur more than efficient levels of capital expenditure. It has proposed a mechanism by which only 60 per cent of such overspend could be included in the asset base.

Commission's preliminary position

- 7.45 The Commission's preliminary position was that, consistent with the Commission's Off-ramp Decision in 2005 and the NER as they stood at the time (and which the Commission accepted as representing generally accepted regulatory practice), the Commission would roll the full amount of capital expenditure incurred in the third regulatory control period into the opening RAB for the fourth regulatory control period.
- 7.46 However, the Commission intended to subject this capital expenditure to detailed scrutiny, with a reconciliation of the actual capital expenditure that PWC Networks has incurred during the third regulatory control period forming part of the Commission's assessment of required revenue for the 2014 Network Price Determination.
- 7.47 If unacceptably high levels of inefficiency are revealed in assessing PWC Networks' regulatory proposal, the Commission may propose some optimisation of the RAB in its draft determination.

Views in submissions

- 7.48 PWC considered that the full amount of capital expenditures incurred in the current regulatory control period should be rolled into the RAB and that the Commission should not undertake any ex-post optimisation of actual capital expenditure.
- 7.49 PWC argued that for capital investment during the 2009-14 regulatory control period above the permitted capital forecast, PWC has already forgone the return on, and of, assets. PWC contends that the Commission's calculation of PWC's 2009-10 opening tariffs for the 2009 Network Price Determination only considered PWC's capital expenditure requirements for 2008-09 and not its future capital expenditure requirements. Therefore, PWC's opening tariffs only allowed it to recover its recalculated 2008-09 costs, which were adjusted annually for each remaining year of the regulatory control period by a productivity measure. As such, PWC has essentially only received a return on, and of, capital for 2008-09 expenditure (and the RAB at the start of the regulatory control period), not on its forecast rolled forward RAB, for this current regulatory control period.

⁵⁹ AEMC reference: ERC0134 — Economic Regulation of Network Service Providers

- 7.50 Further, PWC argued that the ex-post optimisation of actual capital expenditure is not consistent with the incentive regulation approach adopted under the NER. It introduces a potentially significant regulatory risk on network investments.
- 7.51 QEnergy expressed concern that a large RAB is a significant issue in transitioning from a TFP approach to a building block approach and urged caution in simply accepting the actual capital expenditure in the previous period.
- 7.52 The NTMEU expressed the view that the discipline provided by an ex post prudency review of all capital expenditure should not be removed and that all capital expenditure to be added to the RAB must be demonstrably prudent.
- 7.53 The NTMEU also noted that one of the changes the current review of the NER is likely to introduce will be to impose more discipline in this area.

Commission's further analysis

- 7.54 The Commission does not accept PWC's contention that it has forgone the return on, and of, assets due to the use of a TFP-based approach in the current regulatory control period. Rather it has received a return on and of assets based on an asset base expanding at the rate based on efficient industry standards rather than based on PWC's forecasts of firm-specific depreciation, indexation and capital expenditure.
- 7.55 The Commission notes support from both QEnergy and the NTMEU for scrutiny capital expenditure in the current period and rolling only prudent capital expenditure into the RAB.
- 7.56 However, from a regulatory consistency point of view, the Commission acknowledges that investment decisions made by PWC to date have been premised on the Commission's 2005 Off-ramp Decision which established a roll-forward methodology, where the initial regulatory asset value would thereafter adjusted in full for inflation, asset acquisitions, asset disposals and annual depreciation.
- 7.57 This is also consistent with current regulatory practice in the NEM.
- 7.58 The AEMC's Final Position Paper on the rule change proposal on the economic regulation of network service providers and price and revenue regulation of gas services provides for the inclusion in the NER a number of "tools" the AER can apply to provide adequate incentives for NSPs to spend capital expenditure efficiently, including undertaking reviews of efficiency of past capital expenditure, including the ability to preclude inefficiently incurred expenditure from being rolled into the RAB.
- 7.59 However the Commission notes that this will not be retrospective, with the AER only being able to preclude capital expenditure from going into the RAB from the first regulatory control period after the capital expenditure incentive guidelines commence. Any capital expenditure incurred prior to this time will not be subject to this provision.⁶⁰

⁶⁰ Australian Energy Market Commission Final Position Paper National Electricity Amendment (Economic Regulation of Network Service Providers) Rule 2012 and National Gas Amendment (Price and Revenue Regulation of Gas Services) Rule November 2012 page 95

Commission preferred approach

- 7.60 The Commission's preferred approach is that, consistent with the Commission's Off-ramp Decision in 2005 and the NER, the Commission will roll the full amount of capital expenditure incurred in the third regulatory control period into the opening RAB for the fourth regulatory control period.

Rolling forward of the RAB

- 7.61 The RFM is used by the AER to determine the closing RAB for each DNSP for each regulatory control period. This closing RAB value (broken into asset classes) becomes the opening RAB to be used for the purposes of making a distribution determination for the next regulatory control period.
- 7.62 The RAB values from the RFM form inputs into the PTRM, where they are rolled forward from year to year using forecast data. The RFM performs calculations predominantly using actual data.
- 7.63 Key features of the RFM are:
- an incentive framework that uses 'actual' depreciation in rolling forward RAB values which also provided the flexibility for a DNSP to propose a 'forecast' depreciation approach depending on the circumstances;
 - a roll forward calculation over a six regulatory year period, which provides for adjustments for forecast capital expenditure used in the final regulatory year of the previous regulatory control period and the five years of the current regulatory control period (while the length of a regulatory control period in all NEM jurisdictions is five years, the model can accommodate up to 11 regulatory years);
 - calculations for up to 20 asset classes;
 - a full as-incurred approach to recognising capital expenditure;
 - the use of straight-line depreciation as a default method, which could be amended depending on whether alternative methods formed part of the distribution determination for the relevant regulatory control period; and
 - an adjustment to the RAB (indexation) by the rate of actual (observed) inflation over the period. The value of this increase, and thus satisfaction of the respective NER requirement, is separate to the adjustments for actual capital expenditure and actual depreciation over the period.
- 7.64 For the building block assessment with respect to the final year of the second regulatory control period (2008-09), undertaken as part of the 2009 Network Price Determination in order to align efficient costs and revenues for standard control services, PWC rolled forward the RAB as a whole, rather than broken into asset classes.
- 7.65 The Commission's view is that PWC Networks' regulatory proposal should roll forward the RAB value broken into relevant asset classes, consistent with practice in NEM jurisdictions.

Commission's preliminary position

- 7.66 The Commission's preliminary position was that a roll forward model (RFM) largely modeled on the AER's published RFM and its accompanying handbook be adopted for use by PWC Networks in the 2014 Network Determination to roll forward the RAB.
- 7.67 As with the AER's PTRM, modifications to the RFM will be based on PWC Networks' capacity to provide information.

Views in submissions

- 7.68 Neither QEnergy nor the NTMEU provided comment on this matter.
- 7.69 PWC supported the use of the AER's RFM with modifications made as required based on PWC's capacity to provide information. For example, the provision of data in the required asset categories is likely to be difficult to provide as it will require manual manipulation of PWC's regulatory asset book.
- 7.70 PWC further submitted that the AER's RFM will also need to be modified because it is premised on the use of a forward-looking building blocks approach in the current regulatory control period, as opposed to the Total Factor Productivity (TFP) approach that was adopted by the Commission.
- 7.71 PWC argued that under the TFP approach, PWC has essentially only received a return on and return of capital for 2008-09, and not on its forecast rolled forward RAB, for this current regulatory control period. To ensure its on-going commercial viability, PWC should receive a return on and a return of its capital expenditure during the current regulatory control period.
- 7.72 PWC proposed that the Commission modifies the AER's RFM so that its capital expenditure in the current regulatory control period is not depreciated, and the undepreciated value is therefore incorporated in the opening RAB used in the PTRM. This will enable PWC to receive the full return of depreciation on its capital investment from 2009-10 to 2013-14.

Commission's further analysis

- 7.73 The Commission does not accept PWC's contention that it has only received a return on and return of capital for 2008-09, and not on its forecast rolled forward RAB, for this current regulatory control period. Rather it has received a return on and of assets based on an asset base expanding at the rate based on efficient industry standards rather than based on PWC's forecasts of firm-specific depreciation, indexation and capital expenditure.
- 7.74 TFP and building block based approaches are just alternate methodologies for deriving the X-factors in the CPI-X incentive mechanism.
- 7.75 For the purposes of the RFM, notional depreciation, indexation and net capital expenditure for the 2009-14 regulatory control period can be derived that would have given rise to the same X-factor determined by the TFP-based approach used by the Commission.
- 7.76 In line with the NER, the Commission does not consider that PWC should receive back-dated return on and of assets for that capital expenditure that is in excess of the notional capital expenditure allowance for 2009-14, but should receive it going forward once actual capital expenditure is rolled into the RAB.

Commission preferred approach

- 7.77 The Commission's preferred approach is that a roll forward model (RFM) largely modeled on the AER's published RFM and its accompanying handbook be adopted for use by PWC Networks in the 2014 Network Determination to roll forward the RAB.
- 7.78 The Commission, in consultation with PWC, will modify the AER's RFM to accommodate PWC's capacity to provide information with respect to different asset categories. The RFM will not be modified to enable PWC to receive the full return of depreciation on its capital investment from 2009-10 to 2013-14.

Forecast capital expenditure and the regulatory investment test

- 7.79 The NER identifies that a building block proposal must include the total forecast capital expenditure for the relevant regulatory control period which the DNSP considers is required in order to:
- meet or manage the expected demand for standard control services over that period;
 - allow compliance with all applicable regulatory obligations or requirements associated with the provision of standard control services;
 - maintain the quality, reliability and security of supply of standard control services; and
 - maintain the reliability, safety and security of the distribution system through the supply of standard control services.⁶¹
- 7.80 The Commission's view is that the regulatory proposal should also include the most efficient costs associated with achieving the objectives identified in the NER above.
- 7.81 As indicated in the *Review of Electricity System Planning, Monitoring and Reporting*, the Commission supports the introduction and use of a regulatory investment test (RIT) as part of the network planning process to ensure that network developments are subject to a cost-effectiveness evaluation.⁶²
- 7.82 The Commission considers that the use of RIT is appropriate in the Territory, ensuring rigour and transparency. The RIT process should ensure that the network service provider conducts a robust economic assessment of significant augmentation projects relative to alternative options, including non-network outcomes.
- 7.83 The AER issued its regulatory test version 3 and regulatory test application guidelines in November 2007, under clause 5.6.5A of the NER. Regulatory test dispute resolution guidelines were also released.
- 7.84 Subsequently, in July 2010, the AER published its regulatory investment test for transmission (RIT-T) under clause 5.6.5B of the NER, which replaced the regulatory test for transmission investments. However, the regulatory test continues to apply to projects which address a need on the distribution network until such time as a

⁶¹ Clause 6.5.7(a) NER

⁶² Utilities Commission, December 2011, *Review of Electricity System Planning, Monitoring and Reporting – Final Report*.

regulatory investment test for distribution (RIT-D) is developed in accordance with the NER.

Commission's preliminary position

- 7.85 The Commission's preliminary position was that PWC Networks' regulatory proposal should include total forecast capital expenditure which complies to the maximum extent possible with the requirements of clause 6.5.7 of the NER.
- 7.86 While transmission and distribution are separated in the NER in Chapter 6A and Chapter 6 respectively, the Commission's preliminary position was that a combined regulatory investment test (that is the AER's regulatory test version 3) for the transmission and distribution network be applied by PWC Networks to the determination of efficient capital expenditure for the purpose of the 2014 Network Price Determination.

Views in submissions

- 7.87 All stakeholders supported Commission's use of the relevant provisions of the NER for assessing forecast capital expenditure. However both QEnergy and the NTMEU emphasised the need for detailed scrutiny.
- 7.88 QEnergy and the NTMEU did not provide comment on the use of the Regulatory Investment Test (RIT).
- 7.89 While PWC agreed in principle with the use of an RIT, it noted that the some aspects of the AER's RIT are NEM-specific and not appropriate for use in Territory circumstances. In particular, PWC noted the requirement for analysis of impact on participant bidding behavior and consultation requirements that would be overly onerous for the smaller Territory market.

Commission's further analysis

- 7.90 Upon further consideration, the Commission acknowledges that the AER's RIT is not appropriate for Territory circumstances.
- 7.91 In line with recommendations in the Commission's *Review of Electricity System Planning, Monitoring and Reporting Final Report*, the Commission will pursue the development and introduction of an RIT to ensure that distribution network developments are subject to a cost-effectiveness evaluation outside the 2014 Network Price Determination process.

Commission preferred approach

- 7.92 The Commission's preferred approach is that it will assess the forecast capital expenditure in PWC Networks' regulatory proposal against the requirements of clause 6.5.7 of the NER.

Weighted Average Cost of Capital (WACC)

- 7.93 The WACC determines the network service provider's expected rate of return on capital for the regulatory control period.
- 7.94 The WACC can be specified in any combination of real/nominal or pre/post tax so long as appropriate modelling is undertaken. Increasingly, a post tax nominal framework is used by regulators as this is considered consistent with (and directly comparable to) actual stock market equity returns.
- 7.95 In the first regulatory control period, the NT Access Code required that the WACC be calculated pre-tax on a real, rather than nominal, basis. For the second and

subsequent regulatory control periods, the methodology for determining the WACC is required to be set by the Commission in such a way as to achieve the pricing objectives of the NT Access Code.⁶³

- 7.96 The Commission did not apply a forward building block assessment of PWC Networks' costs in the second and third regulatory control periods. However, the single year assessment of actual costs and revenues undertaken for each determination used a pre-tax real WACC.
- 7.97 The AER uses a post tax nominal framework.
- 7.98 In the 2009 Network Price Determination, the Commission adopted the WACC methodology and parameters prescribed under the transitional arrangements in the NER for the NSW and ACT determinations.⁶⁴ The Commission considered that the AER's review of the WACC in 2009 would constitute an appropriate forum for review of the WACC (as opposed to the Commission calculating the WACC separately).⁶⁵ However, the Commission continued to calculate the WACC on a pre-tax, rather than post-tax, basis.
- 7.99 In May 2009, the AER completed its review of the WACC parameters for electricity transmission and distribution network service providers.⁶⁶ This review focused on the WACC parameters and not the methodology.

Table 7.1: AER Final Decision - WACC parameters

Set parameters	AER Final Decision
Gearing	60%
Nominal risk-free rate	10-year Commonwealth Government Security (CGS) ¹
Market risk premium (MRP)	6.5%
Equity beta ²	0.8
Credit rating	BBB+
Gamma	0.65
Return on equity	10.88%
Cost of debt	7.45% ³
Nominal 'vanilla' WACC	8.82%

1 Calculated as the yield on 10 year CGS calculated over the five year period 1 April 2004 to 1 April 2009 (ie. 5.68 per cent).

2 Beta is a measure of the standardised correlation between the returns on an individual risky asset with that of the overall market.

3 Calculated as the yield on 10 year BBB rated bonds calculated over the five year period 1 April 2004 to 1 April 2009 (ie 7.45 per cent).

⁶³ Clause 63 NT Access Code.

⁶⁴ Utilities Commission, May 2008, Network Pricing 2009 Regulatory Reset Price Control Mechanism Final Decision Paper, page 38

⁶⁵ The NER required the AER to review the WACC parameters in 2009.

⁶⁶ Australian Energy Regulator, May 2009, Electricity transmission and distribution network service providers – Review of the weighted average cost of capital (WACC) parameters

- 7.100 The WACC methodology in the NER⁶⁷ is a lock-in framework for transmission, where the outcomes of this review are 'locked-in' for all reset determinations. The outcomes of the review will also apply to all distribution reset determinations, unless there is persuasive evidence to depart from the outcomes of this review at the time of the reset determination.

Commission's preliminary position

- 7.101 The Commission considered the approach in the NER to be appropriate for the 2014 Network Price Determination, as it is well defined and sufficiently flexible to enable formulation of a forward-looking WACC that reflects prevailing market conditions.
- 7.102 The Commission's preliminary position was that it will adopt a post-tax nominal WACC, consistent with the AER methodology.

Views in submissions

- 7.103 QEnergy did not comment on this matter.
- 7.104 The NTMEU argued that the current AER approach to setting the debt risk premium results in costs to consumers that are not incurred by PWC and expressed support for the approach used by the WA's ERA in setting the WACC for Western Power in its recent draft decision. The NTMEU also noted that the setting of the debt risk premium forms part of the rule change proposal under consideration by the AEMC.
- 7.105 PWC supported the use of the NER's WACC methodology and approach in principle. However, PWC noted that WACC parameters were last reviewed by the AER in May 2009.
- 7.106 PWC noted that the Australian Competition (Tribunal) has varied AER decisions on the averaging period to determine the risk free rate, the value assigned to tax imputation credits and the debt risk premium and that the AER's next review of WACC parameters (around May 2014) is expected to more closely specify the approach by which WACC parameters are determined, to reduce the likelihood of successful appeals.
- 7.107 PWC also noted that the determination of WACC parameters, in particular the Market Risk Premium (MRP), has been the source of debate, disagreement and appeal in the NEM.
- 7.108 PWC expressed concern at reliance on parameters from a review that will be four years old at the time its regulatory proposal is submitted. Noting that, as network businesses are capital intensive, the determination of WACC is one of the most significant decisions that will affect revenues in a network determination. PWC also noted that the AER's next review of WACC parameters around May 2014 is unlikely to be incorporated in the Commission's 2014 Final Determination.
- 7.109 PWC also requested that the Commission adopt a pre-tax nominal WACC, consistent with the use of a Pre-tax Revenue Model for the 2014 Network Price Determination.

⁶⁷ Clause 6.5.4 NER

Commission's further analysis

- 7.110 The Commission has considered the merit review decisions by the Tribunal of previous AER determinations and the approach taken by the Western Australian Economic Regulation Authority (ERA) in its September 2012 decision for Western Power.
- 7.111 As noted by PWC, the Commission acknowledges that the MRP has been contentious in the NEM. That said however, while merit review decisions by the Tribunal have amended other parameters, the MRPs established by the AER in its final determinations have been upheld.
- 7.112 The Commission agrees with PWC that reliance in 2012-13 on parameters set by the AER's WACC Review in May 2009 may not be appropriate.
- 7.113 In particular, the Commission notes that the AEMC's recently published Final Position Paper on the rule change proposal on the economic regulation of network service providers includes amendment of the rate of return provisions in the NER and NGR to provide for a common framework (across transmission, distribution and gas), which will provide some high-level principles to guide the estimation and leave the judgment as to the best approach to the regulator to make, consistent with achieving the overall allowed rate of return objective.
- 7.114 The new framework will require the AER to develop rate of return guidelines setting out the approach it intends to take in estimating the allowed rate of return. Given the time required to undertake public consultation and develop these guidelines, they will not be available for incorporation in the Commission's 2014 Network Price Determination. Further, as discussed in Chapter 4, the Commission does not consider that the NT Access Code allows the Commission to delay the determination until such time as the AER's intentions are clearer.
- 7.115 That said, the Commission considers that more recent decisions by the AER are, within the flexibility allowed under current guidelines, more likely to reflect generally accepted regulatory practice than the now dated 2009 WACC Review.
- 7.116 Accordingly, with the exception of the Debt Risk Premium (DRP), the Commission's preferred approach will be to adopt the WACC parameters set out in the AER's most recent determination, the determination for Tasmanian distributor Aurora Energy Pty Ltd for 2012–13 to 2016–17.

Debt Risk Premium

- 7.117 Both the AER and the WA's ERA have undertaken extensive work in this area.
- 7.118 Further, unlike other WACC parameters, the return on debt was specifically addressed in the AEMC's recent rule change decision. The AEMC found that the estimation of the return on debt component could be improved by allowing the regulator to determine the best methodology to estimate a return on debt.
- 7.119 The NTMEU has advocated the use of the approach used by the WA's ERA in setting the WACC for Western Power in its recent draft decision.
- 7.120 The key differences between the approach adopted by the ERA and the approach adopted by the AER in the 2012 Tasmanian determination are:
- the AER bases the DRP on BBB rated corporate bonds, while the ERA uses A-, BBB and BBB+ rated corporate bonds;

- the AER uses a ten year bond curve, while the ERA uses a five year bond curve; and
 - the AER has adopted an extrapolated Bloomberg BBB rated Fair Value Curve (FVC), while the ERA has undertaken its own analysis to arrive at a benchmark bond yield.
- 7.121 The bond term used by each regulator is consistent with the term used to calculate the nominal risk free rate. The ERA has adopted a five year term as it matches the length of the regulatory control period. The AER has adopted a longer term as more consistent with the debt on issue by the benchmark efficient regulated energy network business.
- 7.122 The Commission also notes that the AER's draft Tasmanian determination proposed that the DRP be estimated based on observed market data uses the best available source of information on prevailing Australian bond market conditions. This was based on a sustained divergence between the FVC and market evidence.
- 7.123 Following the release of the draft determination, the Tribunal released decisions that, among other things, considered the AER's approach to estimating the DRP.
- 7.124 The Tribunal stated that if the AER wished to adopt an alternative methodology to the extrapolated Bloomberg BBB rated FVC, it should develop the alternative approach through an industry wide consultation process
- 7.125 While the AER considered that there may be other preferable methodologies to estimate the DRP, it acknowledged the Tribunal's views and agreed that it is desirable to consult widely on a new approach to estimate the DRP before it is used.
- 7.126 Subsequently, the AER has changed its position on the DRP set out in the draft determination and used the Bloomberg BBB rated 7 year FVC extrapolated to a 10 year term to maturity.
- 7.127 While noting the views of the ERA, the approach adopted by the Commission for the 2014 Network Price Determination is to align, to the maximum extent practicable, with arrangements in the NEM. That said, the Commission acknowledges that, particularly in relation to the DRP, arrangements in the NEM will shortly change.
- 7.128 The Commission notes that the Tribunal decisions did not dispute the alternative methodology proposed by the AER, but simply required that consultation be undertaken before it was adopted.
- 7.129 The Commission considers that it is reasonable to assume that the approach set out in the draft Tasmanian determination will be reflected in the new guidelines to be developed by the AER.

Commission preferred approach

- 7.130 The Commission's preferred approach is that the pre-tax nominal WACC should be based on parameters established by the AER in its most recent distribution price determination being the 2012-17 distribution determination for Tasmania, except for the Debt Risk Premium (DRP).
- 7.131 The DRP should be based on the updated methodology set out in the AER's draft determination for Tasmanian DNSPs for 2012-17 which estimates the DRP based on observed market data of a large representative sample of the benchmark Australian corporate bond with a 10 year term to maturity and BBB+ credit rating.

Table 7.2: Utilities Commission preferred approach - WACC parameters

Set parameters	Commission's preferred approach
Gearing	60%
Nominal risk-free rate	10-year Commonwealth Government Security (CGS) ¹
Market risk premium (MRP)	6.0%
Equity beta	0.8
Credit rating	10 year BBB+ based on observed market data
Gamma	0.25

Treatment of corporate tax – transition from pre-tax to post-tax

- 7.132 The NER requires the WACC to be calculated post-tax (that is a nominal 'vanilla' WACC). This approach is consistent with the NER PTRM which is used to calculate the maximum allowed revenue under the building blocks approach.⁶⁸ The AER had no discretion to consider a pre-tax WACC as part of the 2009 WACC review.
- 7.133 A pre-tax WACC provides for an allowance in the WACC to account for a regulated entity's tax liability. The corporate tax rate is one of the parameters in the WACC equation.
- 7.134 Under a post-tax WACC approach, an allowance for tax liability is included as a separate building block and forms part of the cash flows that make up the building block components – tax is not included in the return on capital or WACC building block component. This gives rise to issues relating to the estimation of the tax asset base and (economic and tax) depreciation, treatment of capital contributions, timing assumptions for capital expenditure and depreciation, and carried-forward tax losses.
- 7.135 In terms of modelling, a post-tax nominal framework requires that all factors impacting on a particular business are reflected in their cash flows. While a pre-tax approach is considered to be less information intensive, a post-tax approach aids transparency and avoids the scope for error that can arise in dealing with the implications of taxation (and franking credits) in the WACC.

Commission's preliminary position

- 7.136 The Commission's preliminary position was that for the 2014 Network Price Determination a post-tax approach should be adopted, consistent with the AER methodology. The Commission recognised that this may create difficulties for PWC as PWC Networks is not a tax entity and PWC's tax liability is calculated at the Corporation level. This may require further consideration.

⁶⁸ Clause 6A.5.1 NER.

Views in submissions

- 7.137 Neither QEnergy or the NTMEU provided comment on this matter.
- 7.138 PWC proposed a pre-tax approach be adopted for the 2014 Network Price Determination, transitioning to a post-tax approach for the 2019 Network Price Determination

Commission preferred approach

- 7.139 As discussed above in relation to use of the AER's PTRM, the Commission preferred approach is that a pre-tax revenue approach be adopted for use by the network service provider in the 2014 Network Price Determination.

Depreciation

- 7.140 Depreciation is the mechanism by which invested capital is returned to the owners of the network business over the anticipated economic life of depreciable assets. The central issue is not whether capital should be returned to investors, but rather the pattern of, and period over which, the invested capital should be returned.
- 7.141 Clause 6.5.5 of the NER sets out the manner in which depreciation for each regulatory year must be calculated and the requirements with which depreciation schedules included in the DNSP's regulatory proposal must conform. Where the depreciation schedules nominated by the DNSP do not conform with the requirements of the NER, the AER is required to determine the depreciation schedules to be applied.

Commission's preliminary position

- 7.142 The Commission's preliminary position was that PWC Networks' regulatory proposal should calculate depreciation for each regulatory year consistent with the requirements of the NER.

Views in submissions

- 7.143 Neither QEnergy or the NTMEU provided comment on this matter.
- 7.144 PWC agreed that depreciation for the fourth regulatory control period should be calculated in accordance with the requirements of the NER.
- 7.145 However, in rolling forward the asset base to determine the closing RAB for the current regulatory control period and the opening RAB for the fourth regulatory control period, PWC proposes that Commission modifies the AER's RFM so that its capital expenditure in the current regulatory control period is not depreciated, and the undepreciated value is therefore incorporated in the opening RAB used in the PTRM

Commission preferred approach

- 7.146 As discussed above in relation to the RFM, the Commission's preferred approach is that it will not modify the RFM to enable PWC to receive the full return of depreciation on its capital investment from 2009-10 to 2013-14.
- 7.147 Since there were no objections to the proposal to calculate depreciation for each regulatory year in the fourth regulatory control period consistent with the requirements of the NER, the Commission's preferred approach is that it will assess the depreciation in PWC Networks' regulatory proposal against the requirements of clause 6.5.5 of the NER.

Forecast operating expenditure

- 7.148 Under a building block approach, the network service provider's proposal will require forecasts of its operating expenditure for each financial year during the regulatory control period.
- 7.149 In the NER, the operating expenditure objectives, criteria and factors set out in clause 6.5.6 are essentially the same as the capital expenditure objectives, criteria and factors used for the determination of capital expenditure.
- 7.150 The NER identifies that a building block proposal must include the total forecast operating expenditure for the relevant regulatory control period which the DNSP considers is required in order to achieve each of the following operating expenditure objectives:⁶⁹
- to meet or manage the expected demand for standard control services over that period;
 - to comply with all applicable regulatory obligations or requirements associated with the provision of standard control services;
 - to maintain the quality, reliability and security of supply of standard control services; and
 - to maintain the reliability, safety and security of the distribution system through the supply of standard control services.
- 7.151 The Commission's view is that the regulatory proposal should also include the most efficient costs associated with achieving the objectives identified in the NER above.

Commission's preliminary position

- 7.152 The Commission considered the approach specified in the NER for determining forecast operating expenditure to be appropriate for the 2014 Network Price Determination, and that it should provide PWC Networks with an incentive to undertake a robust assessment of its network expenditure requirements.

Views in submissions

- 7.153 PWC and QEnergy support the Commission's use of the relevant provisions of the NER for assessing forecast operating expenditure, with QEnergy emphasizing the importance of efficiency considerations for the Commission in interpreting and applying the NER to PWC.
- 7.154 The NTMEU expressed some concerns as to whether the current NER provisions are sufficiently stringent or whether they allow unwarranted costs to be included, arguing that the complexity in making allowances for future real cost increases in both operational and capital expenditure by the AER has resulted in consumers incurring significant additional costs that were not warranted when actual cost changes were identified.
- 7.155 In particular, the costs incurred by network service providers, regulators and consumers in the regulatory process as a result of the introduction of the current Rules have increased massively, with consumers are effectively paying for network

⁶⁹ Clause 6.5.6 NER

service providers to involve many consultants to “prove” the need for increased costs.

Commission’s further analysis

- 7.156 The Commission notes the issues raised by the NTMEU and can only re-affirm its commitment to closely scrutinise PWC’s forecast operating costs.

Commission preferred approach

- 7.157 The Commission’s preferred approach is that it will assess the forecast capital expenditure in PWC Networks’ regulatory proposal against the requirements of clause 6.5.6 of the NER.

Cost Allocation

- 7.158 Cost allocations are the manner in which direct costs are attributed, and shared costs are allocated, across different categories within a business.
- 7.159 For regulated monopoly businesses, such as electricity networks, which receive a regulated revenue stream based on the costs of providing services, cost allocations are important to ensure that all relevant costs, but only relevant costs, are included when determining the revenue requirements of the business.
- 7.160 Under the NT Electricity Ring-fencing Code, PWC is required to establish and maintain a separate set of financial accounts and reports for Networks, System Control, Generation and Retail business units (non-contestable customer activities only⁷⁰), and the electricity business as a whole in accordance with the Cost Allocation Procedures approved by the Commission under the Ring-fencing Code [clause 3.1 and Section 4].
- 7.161 While the NT Access Code does not explicitly require the network service provider to submit a cost allocation methodology to the Commission, the network service provider is implicitly required to allocate costs between different categories of distribution services.⁷¹
- 7.162 The Commission approved the initial cost allocation procedures in November 2001 under the Ring-fencing Code.
- 7.163 The Commission is of the view that, as they stand, the Cost Allocation Procedures developed under the Ring-fencing Code are too broad to provide guidance to PWC Networks in the development of consistent internal policies to be used as part of the 2014 Network Price Determination.

Commission’s preliminary position

- 7.164 The Commission’s preliminary view was that the Cost Allocation Procedures require review, and that the NER cost allocation principles⁷² and the AER Cost Allocation Guidelines would be appropriate indicators of generally accepted regulatory practice.

⁷⁰ On 1 April 2010, all customers became contestable.

⁷¹ Refer to clause 7 (Segregation of network provider’s accounts and records) and clause 7A (Ring-fencing requirements) of the Electricity Networks (Third Party Access) Code, which is a schedule of the *Northern Territory Electricity Networks (Third Party Access) Act 2003*.

⁷² Clause 6.15.2 NER

- 7.165 In line with this, PWC Networks would be required to submit a Cost Allocation Method, setting out the detailed principles and policies used by PWC Networks to allocate costs between different categories of distribution services, consistent with the AER Cost Allocation Guidelines, prior to finalising its regulatory proposal.

Views in submissions

- 7.166 The NTMEU did not provide comment on this matter.
- 7.167 QEnergy expressed general support for the use of the AER's Cost Allocation Methodology (CAM) principles for the establishment of the appropriate proportions of overheads to the regulated business, and then to service classes, but noted that the CAM would need to be extremely broad in its scope to ensure that overheads and costs are correctly allocated to the regulated network business, and then to standard control services, within the vertically integrated corporation.
- 7.168 In particular, QEnergy argued that the entire operations of PWC, and their efficiency, have an impact on competition in the retail market. As a vertically integrated, Government-owned generation, network and retail entity, there is a clear incentive for PWC to direct its overheads towards networks and generation, and away from its retail functions. A decision by the Commission to cut overheads in networks, without scope to see where they are going after this decision, may in fact lead to higher wholesale costs for all customers.
- 7.169 PWC supported in principle the developments of a CAM consistent with the AER Cost Allocation Guidelines, however argued that it would not have sufficient time to prepare this for submission to the Commission as part of the 2019 Network Price Determination process.
- 7.170 PWC also advised that it will not have sufficient time to prepare its capital and operational expenditure forecasts on an alternative cost allocation basis. Power Networks will have finalised its financial budgets for its Business Plan and for input into the 2013-14 Statement of Corporate Intent (SCI) prior to the Commission's approval of its Cost Allocation Procedures, and it will therefore be too late to amend the capital and operational forecasts in the SCI.
- 7.171 PWC proposed transitional arrangements, noting that PWC has an existing obligation to submit its cost allocation procedures under the Northern Territory Electricity Ring fencing Code, and the Commission approved the Accounting and Cost Allocation Procedures submitted by PWC in November 2001 and extended that approval indefinitely in May 2006.
- 7.172 PWC submitted that for the 2014 Network Price Determination, the Cost Allocation Method will by necessity be the current Commission approved Accounting and Cost Allocation Procedures and that PWC will develop a Cost Allocation Method consistent with the AER Cost Allocation Guidelines for submission to the Commission as part of the 2019 Network Price Determination process.

Commission's further analysis

- 7.173 The Commission does not consider that the Cost Allocation Procedures approved under the Ring-fencing Code are sufficient for use for the 2014 Network Price Determination.
- 7.174 The Cost Allocation Procedures approved under the Ring-fencing Code deal with the allocation of costs between PWC's business units. Allocations are described at a high, conceptual level and do not provide sufficient detail for actual allocations to be

audited against. They do not address the allocation of costs between types of service and customer classes within the regulated networks business unit.

- 7.175 The Commission acknowledges PWC's argument that there is insufficient time to prepare its capital and operational expenditure forecasts on an alternative cost allocation basis but notes that PWC has been aware of the intention to align with the AER approach (and therefore its cost allocation methodology) since at least 2009.
- 7.176 PWC's reference to an alternative cost allocation basis infers that the current cost allocation methodology would not conform to the requirements of the NER and the Cost Allocation Guidelines developed by the AER. This is of concern to the Commission.
- 7.177 The Commission also notes QEnergy's concern that costs are not shifted from the regulated network business to the contestable retail or generation business.
- 7.178 For the 2014 Network Price Determination, the Commission will not require PWC to amend the basis of its cost allocations. Rather, the Commission requires PWC to fully document its existing cost allocation methodology such that the following can be audited against it:
- allocation of costs to the regulated network business;
 - allocation of costs between standard control services and alternative control services; and
 - allocation of costs between customer classes and geographic regions.
- 7.179 The Commission reserves the right to require amendment to cost allocations should significant mis-allocations be identified.

Commission preferred approach

- 7.180 The Commission's preferred approach is to require PWC Networks to set out the detailed principles, policies and methodology used by PWC Networks to allocate costs between the regulated network business and other PWC business and between the different categories of distribution services.

Driving improvements in reliability

- 7.181 Under a price or revenue cap form of price regulation, network service providers may seek to reduce costs in order to increase their return on investment. Reducing costs at the expense of quality and reliability may not be a desirable outcome.
- 7.182 The AER published its Service Target Performance Incentive Scheme (STPIS) in June 2008, in accordance with clause 6.6.2 of the NER. An amended version was released in November 2009.
- 7.183 While the regulatory regime as a whole encourages a business to improve its operating and capital efficiency, the STPIS is designed to ensure that this increase in efficiency is not at the expense of a deterioration in service performance for customers. Further, the STPIS is intended to encourage a business to improve its service performance where customers are willing to pay for these improvements.
- 7.184 The AER's STPIS comprises four components being:
- the 'reliability of supply' component;
 - the 'quality of supply' component;
 - the 'customer service' component; and
 - the guaranteed service level (GSL) component.

- 7.185 Under the reliability of supply, quality of supply and customer service components of this scheme, a DNSP's revenue is increased (or decreased) based on changes in service performance, as assessed by the AER in accordance with this scheme.
- 7.186 This is achieved by including an S-Factor component in the price control mechanism, so that network service providers are penalised (or rewarded) for diminished (or improved) service compared to predetermined targets.
- 7.187 Under the GSL component, payments are made directly to customers where the service performance received by those customers is worse than a specified threshold.
- 7.188 As part of a distribution determination, the AER will determine whether one or more components of this scheme may apply to a DNSP. Jurisdictional schemes take precedence, and the AER will only consider applying components of the STPIS where there is no jurisdictional scheme. For example, for those jurisdictions which have a GSL scheme in place, the AER does not include that component in the STPIS arrangements for that jurisdiction.
- 7.189 The AER's STPIS also includes information and reporting requirements for annual reporting by DNSPs of actual performance against the parameters applicable to it as set out in the relevant distribution determination.
- 7.190 The NT Guaranteed Service Level (GSL) Code took effect from 1 January 2012, with a staged approach to the implementation of payments for various service performance measures. The Code was fully implemented on 1 July 2012.
- 7.191 GSL schemes in place elsewhere in Australia are generally funded as an operating cost of the DNSP. This is done for NEM jurisdictions through an ex ante assessment of likely costs by the AER when setting the revenue or price cap. Accordingly, the Commission will consider if an allowance for GSL payments should be made when assessing the regulated revenue requirement of PWC Networks for the 2014 Network Price Determination.
- 7.192 The Commission will introduce a new Standards of Service Code for the Territory with effect from 1 December 2012. The standards specified for PWC Networks in that Code will provide the basic service standards framework against which the expenditure proposals for the regulatory control period will need to be evaluated. Any STPIS arrangements for the Territory would need to be framed with reference to the requirements of the new Standards of Service Code.

Commission's preliminary position

- 7.193 The Commission's preliminary view was that it would be premature for the 2014 Network Price Determination to include STPIS arrangements in the price control mechanism, since PWC Networks will have had only limited exposure to the new service standards. Rather, the Commission will rely on the GSL Code to drive reliability improvements in poorly performing areas of the network and on the targets and reporting framework to be established under the Standards of Service Code to encourage reliability improvements across the regulated network as a whole. The Commission may consider including incentive scheme arrangements based on the STPIS for future regulatory control periods.

Views in submissions

- 7.194 QEnergy did not provide comment on this matter and PWC supported the Commission's preliminary position that it would be premature to include STPIS arrangements in the price control mechanism.
- 7.195 The NTMEU noted that the AER is currently revising its current Service Target Performance Incentive Scheme (STPIS).

Commission preferred approach

- 7.196 The Commission confirms that its preferred approach is unchanged from its preliminary position.

Providing incentives for demand management

- 7.197 Clause 6.6.3 of the NER requires the AER to prepare a Demand Management Incentive Scheme (DMIS) to provide incentives for DNSPs to implement efficient non-network alternatives or to manage expected demand for standard control services in some other way for application in distribution determinations.
- 7.198 The DMIS is designed to supplement a DNSP's approved capital and operating expenditure, allowing the DNSP to investigate, develop and implement strategies to manage demand for standard network services by means other than network augmentation.
- 7.199 The DMIS is not intended to be the sole, or even the primary, source of recovery of demand management expenditure. The primary source of funding for demand management initiatives in a regulatory control period should be the forecast capital and operating expenditure approved by the regulator in the DNSP's distribution determination. The DMIS complements the existing approved capital and operating expenditure incentives for demand management, by facilitating further investigation into efficient and viable non-network strategies so that DNSPs can improve their demand management capabilities in the longer term.
- 7.200 DMIS established by the AER comprise two components:
- An ex-ante demand management innovation allowance (DMIA) may be provided as a fixed amount of revenue at the commencement of each regulatory year in the regulatory control period. The DMIA is provided in addition to any opex and capex allowances for demand management projects approved in the AER's distribution determination for a DNSP. While these amounts are allocated annually through the building block mechanism, the DNSP can use these funds at any point in the regulatory control period to pursue initiatives under the DMIS. The proposed DMIS required that the DMIA be provided on a use-it-or-lose-it basis.
 - A forgone revenue component may be provided in the form of a D-factor in the annual CPI-X escalation formula. This allows a DNSP to recover forgone revenue as a result of successful, approved demand management initiatives under the DMIA, where these result in lower energy throughput (and hence, lost revenue) for the DNSP. .

Commission's preliminary position

- 7.201 The Commission was aware that both the Territory Government and PWC have implemented demand management initiatives and the Commission would consider if an allowance should be made for any associated costs when assessing the regulated revenue requirement of PWC Networks for the 2014 Network Price Determination.
- 7.202 However, the Commission's preliminary view was that it may be premature to adopt a formal DMIS for the 2014 Network Price Determination, particularly given the limited experience of such arrangements in NEM jurisdictions at the present time. The Commission could consider demand management incentives for future regulatory control periods.

Views in submissions

- 7.203 Neither QEnergy or the NTMEU provided comment on this matter.
- 7.204 PWC supported the Commission's preliminary position that it would be premature to adopt a formal DMIS for the 2014 Network Price Determination.

Commission preferred approach

- 7.205 The Commission confirms that its preferred approach is unchanged from its preliminary position.

Sharing the benefits of efficiency gains

- 7.206 At the commencement of each regulatory control period, the regulator determines the revenue that a network service provider requires to recover its efficient costs of supply over the regulatory control period. The price path set for regulated prices remains unchanged over the regulatory control period, introducing a lag between the time the network service provider improves efficiency and the time those new efficiencies are reflected in regulated prices.
- 7.207 This provides an incentive for the network service provider to achieve efficiencies greater than those allowed for in the network price determination, as the efficiency gains remain with the business, at least to the end of the regulatory control period.
- 7.208 However, the power of this incentive reduces as the regulatory control period progresses. Expenditure reductions near the beginning of the regulatory control period are retained for longer than if the network service provider were to reduce expenditure closer to the end of the regulatory control period.
- 7.209 At the end of the regulatory control period, a new price path will be set for the next regulatory control period based on the new efficient costs of supply, passing through the reward for increased efficiency to customers.
- 7.210 To address this, regulators may make provision for a sharing of these efficiency gains between the network service provider and network users by allowing the network service provider to retain some or all of the efficiency gains for a period of time after the regulatory year in which the gain is made. The incentive for a network service provider to achieve greater efficiencies is maintained by having formal arrangements in place at the commencement of the regulatory control period, setting out the manner in which efficiency gains achieved during the period will be identified and shared.

- 7.211 The AER published its Efficiency Benefits Sharing Scheme (EBSS) in June 2008. The EBSS provides for a fair sharing between the DNSP and network users of the efficiency gains or losses over future regulatory control periods.

Commission's preliminary position

- 7.212 The Commission's preliminary position was that, at the end of the fourth regulatory control period, any efficiency gains or losses achieved during the period will be dealt with consistent with the requirements of the AER's EBSS or with a Territory-specific EBSS if one is in force at that time.

Views in submissions

- 7.213 PWC did not support the implementation of an EBSS at the end of the fourth regulatory control period, arguing that as the 2014-2019 performance against the regulatory operating cost allowance will form the basis for this carry-over incentive scheme in the subsequent regulatory control period, it is incumbent upon the Commission to specify the operation of an EBSS scheme at least 5 years in advance of its implementation, including specifying how network operating expenditure on demand management and network support will be treated, and for PWC to have the opportunity to put forward exclusions or variations.
- 7.214 Both QEnergy and the NTMEU indicated support for an EBSS in principle but expressed doubts about its effectiveness.
- 7.215 QEnergy questioned whether the incentive powers inherent in the Scheme, which were designed to be applied to single purpose network companies, would create incentives within a vertically integrated monopoly that were ultimately unhelpful in the context of the Code objective, noting that it could simply result in costs being allocated elsewhere by PWC in the event that penalties were likely to be triggered.
- 7.216 The NTMEU agreed that an incentive to increase service levels and efficiency in operating and capital expenditure, are desirable, but noted that the EBSS current in the NEM only applies to operating expenditure. Further, the NTMEU expressed concern that the EBSS operating in the NEM is resulting in payments for supposed improved efficiency yet operating costs are rising faster than ever and gaming is more prevalent.

Commission's further analysis

- 7.217 While it might be argued that EBSS is a key part of an incentive-based regulatory regime, in the Territory context an EBSS could be considered a refinement that would divert resources from higher priority matters to be dealt with present.
- 7.218 The Commission also notes PWC's argument that an EBSS should be specified at least five years in advance of its implementation. As the Commission cannot be confident about application of either the AER scheme or a Territory-specific scheme in sufficient time for the 2014 Network Price Determination, proceeding with an EBSS at this time would be problematic.

Commission preferred approach

- 7.219 In light of the muted support for an EBSS and doubts about its effectiveness, the Commission's view is that it may be premature to adopt a formal EBSS for the 2014 Network Price Determination.

Pass-through cost arrangements

- 7.220 The Commission considers that, in some circumstances, it would be more appropriate for certain risks to be borne by customers rather than by the network service provider. If not passed through, certain events could put PWC's financial sustainability at risk.
- 7.221 Clause 71 of the NT Access Code provides that:
The regulator may only revoke or reset a revenue or price cap with respect to a particular financial year or years if it appears to the regulator that –
- (c) *there were extraordinary developments with respect to any one of the key factors identified in clause 68 which, in the opinion of the regulator, were outside the network provider's control.*
- 7.222 In line with the 2009 Network Price Determination, the Commission will allow PWC Networks to pass through the costs of certain pre-agreed events.⁷³ In particular, the Commission acknowledges that mandated obligations from Government or the implementation of recommendations arising from the reviews undertaken by the Commission in 2009 and 2010 (for example, system improvements to facilitate competition following the introduction of FRC), or from the current review of PWC commissioned by the Territory Government may result in a pass-through event.
- 7.223 The Commission notes that, in the NEM, a DNSP may seek the approval of the AER to pass through positive events to distribution network users. Conversely the AER may require the DNSP to pass through to their customers a negative pass-through amount.⁷⁴
- 7.224 Clause 6.6.1 of the NER sets out the details that the DNSP must provide in a statement to the AER when the DNSP considers that a pass-through event may have occurred, requirements for consultation and the factors the AER must take into account when making a determination on whether a pass-through event has occurred.
- 7.225 The NER specifies certain pass through events that are applicable to all distribution determinations:
- a regulatory change event;
 - a service standard event;
 - a tax change event;
 - a terrorism event; or
 - an event nominated in a distribution determination as a pass-through event for the determination.
- 7.226 The NER does not provide any specific criteria that the AER is to have regard to in assessing proposed additional pass through events, giving the AER a broad

⁷³ Utilities Commission, March 2009, Network Pricing: 2009 Regulatory Reset-Final Determination, pages 110-114.

⁷⁴ Clause 6.6.1 NER

discretion in respect of its decision on the additional pass through events that are to apply in a regulatory control period.

- 7.227 In the 2009 Determination, the Commission decided that it would only consider cost pass through applications if they are the consequence of:
- change in tax or insurance events;
 - force majeure events;
 - regulatory compliance events;
 - service standard events; or
 - such other events that satisfy the following requirements:
 - the occurrence was not anticipated at the time of the preceding determination or was, while allowable, explicitly excluded from affecting the outcome of that determination on the grounds that the likely impact on PWC Networks was unknown or too difficult to quantify at the time, or
 - the occurrence is not a result of actions of PWC's board or management or of decisions of the Government in its capacity as owner or shareholder or guarantor of PWC.
- 7.228 The Commission also applied a materiality test, requiring that a cost pass through application must at least satisfy a materiality threshold of 1 per cent of the annual revenue from standard control services in the financial year in which the event occurs.

Commission's preliminary position

- 7.229 The Commission's preliminary view was that it will adopt the same list of allowable pass through events as that applied to the 2009 Network Price Determination but would follow the processes and have regard to the factors set out in clause 6.6.1 of the NER when determining whether a particular cost pass through event has occurred.

Views in submissions

- 7.230 Neither QEnergy or the NTMEU provided comment on this matter.
- 7.231 PWC proposed that the Commission should apply the AER's materiality provision:, with an event being material if:
- the revenue impact in any one year exceeds 1 per cent of the respective DNSP's revenue for the first year of the regulatory control period; or
 - the proposed capital expenditure exceeds 5 per cent of the AARR in the first year of the regulatory control period.
- 7.232 PWC also suggested a number of additional foreseeable events that could make material changes to PWC's cost structures:
- a structural separation event, if more complete disaggregation of PWC's System Operation function or other functions leads to increases in network costs;
 - a new technology event, if a mandated roll out of smart meters or smart grid technology;
 - an emissions trading scheme event, if costs are impacted by emissions trading arrangements; and

- a network losses event, if the regulations under the Energy Efficiency Opportunities Act are extended to capture PWC and result in increasing administrative, compliance or capital costs.

Commission's further analysis

- 7.233 Consistent with the Commission's approach of aligning with NEM arrangements, where practicable, adoption of the AER's materiality criteria would be appropriate.
- 7.234 With respect to the additional pass-through events suggested by PWC, the Commission considers that these are already captured in the existing list of allowable pass-through events.
- 7.235 A structural separation event would fall within the ambit of other allowable events if it reflects a decision by Government as policy maker to improve the operation of the Territory electricity supply market. A decision to structurally separate PWC by Government as shareholder for commercial reasons would be unlikely to qualify as a pass-through event.
- 7.236 The other three proposed events – mandated roll out of new technology, impact of an emissions trading scheme or changes to regulations under the *Energy Efficiency Opportunities Act* - would appear to be captured under regulatory compliance events, as each would be triggered by a change in legislative requirements either at the Territory or Federal level.

Commission preferred approach

- 7.237 The Commission's preferred approach will be to adopt the same list of allowable pass through events as that applied to the 2009 Network Price Determination but will follow the processes and have regard to the factors set out in clause 6.6.1 of the NER when determining whether a particular cost pass through event has occurred.
- 7.238 The Commission will also adopt the AER's materiality thresholds.

CHAPTER 8

Pricing principles and tariffs

- 8.1 In the leadup to the commencement of each regulatory control period, the Commission is required to oversee:
- the application by the network service provider of principles for setting reference tariffs to apply to standard network access services;⁷⁵ and
 - the application by the network service provider of principles for setting of capital contributions and charges.⁷⁶
- 8.2 While the network service provider is responsible for establishing the pricing structure that best gives effect to the principles set out in the NT Access Code,⁷⁷ the network service provider's proposed reference tariffs must be provided to the Commission for approval.⁷⁸
- 8.3 This chapter sets out the Commission's preferred approach to approving pricing principles and reference tariffs for the fourth regulatory control period.

Network pricing principles and approval of reference tariffs

Requirements of the NT Access Code

- 8.4 The NT Access Code stipulates that the network service provider is to be responsible for establishing the pricing structure that best gives effect to the pricing principles.⁷⁹
- 8.5 However, prior to the commencement of each regulatory control period, the network service provider is required to provide to the Commission for approval a statement setting out the details of the principles and methods to be used for defining the individual standard network access services to be supplied by the network service provider and for establishing the reference tariffs to apply to those services.⁸⁰ This is referred to as the Network Pricing Principles Statement (NPPS).
- 8.6 At least 60 days prior to the start of each financial year, the network service provider must provide to the Commission a statement setting out its proposed reference tariffs for the standard network access services for that year, with the statement detailing how the tariffs and charges have been calculated by application of the principles in the NT Access Code.⁸¹

⁷⁵ Clause 62(1)(b) NT Access Code

⁷⁶ Clause 62(1)(c) NT Access Code

⁷⁷ Clause 75(1) NT Access Code

⁷⁸ Clause 78(1) NT Access Code

⁷⁹ Clause 75(1) NT Access Code

⁸⁰ Clause 75(6) NT Access Code

⁸¹ Clause 78(1) & (2) NT Access Code

- 8.7 The Commission must approve the tariffs and charges, or individual tariffs and charges unless, in the opinion of the Commission, the tariffs and charges would result in the network service provider not complying with the principles laid down in Chapter 7 of the NT Access Code or are inconsistent with requirements elsewhere in the NT Access Code.⁸²
- 8.8 The reference tariff is the maximum tariff to apply with respect to an individual standard network access tariff.
- 8.9 The NT Access Code sets out the network pricing principles underpinning reference tariffs.⁸³ The network tariffs are to:
- reflect efficient costs of supply;
 - involve a common approach for all network users, with the actual tariff, with respect to a particular network access service, only differing between users because of geographical and electrical location, quantities supplied, pattern of network usage, technical characteristics or requirements of the user's load or generation, nature of the plant or equipment or periods for which the network access service is expected to be supplied;
 - be transparent and published in order to provide pricing signals to network users;
 - promote price stability; and
 - reflect a balancing of the quest for detail against the administrative costs of doing so.
- 8.10 In addition to these objectives, clause 63 of the NT Access Code specifies that network regulation must be administered to achieve:
- an efficient and cost-effective regulatory environment;
 - prevention of monopoly rent extraction by the network service provider;
 - promotion of competition in upstream and downstream markets and promotion of competition in the provision of network services where economically feasible;
 - regulatory accountability through transparency and public disclosure of regulatory processes and the basis of regulatory decisions;
 - reasonable certainty and consistency over time of the outcomes of regulatory processes; and
 - an acceptable balancing of the interests of the network service provider, network users and the public interest.
- 8.11 In the event that the Commission considers there to be a conflict between the requirements of clause 74(1) and those set out in clause 63, the requirements of clause 63 are to take precedence.⁸⁴

⁸² Clause 78(3) NT Access Code

⁸³ Clause 74(1) NT Access Code

⁸⁴ Clause 74(2) NT Access Code

Requirements of the National Electricity Rules

- 8.12 The NER do not require DNSPs to provide a stand-alone document setting out the principles and methods for defining individual network access services.
- 8.13 Rather, the principles to be applied for assigning customers to a particular tariff class⁸⁵ and the pricing principles underlying the manner in which revenue is to be recovered from each tariff class⁸⁶ are set out in the Rules themselves. A tariff class is constituted with regard to the need to group customers together on an economically efficient basis and the need to avoid unnecessary transaction costs.⁸⁷
- 8.14 The DNSP is required to submit a comprehensive pricing proposal each year which includes definitions of the tariffs and tariff classes into which customers for direct control services are divided and their charging parameters, and which demonstrates that prices comply with the NER pricing principles. The range of matters that must be included in the pricing proposal is listed in clause 6.18.2 of the NER.
- 8.15 The pricing proposals provided by DNSPs in the NEM effectively combine in a single document, updated annually, the information that a network service provider in the Territory would provide in two parts – the Network Pricing Principles Statement provided at the commencement of the regulatory control period and the annual tariff proposals provided for each year of the regulatory control period.

Summary of current arrangements

- 8.16 The tariff structures for standard network access services were established by PWC Networks in 2000 prior to the first regulatory control period and, other than to remove the DKTL tariff from 2009-10, PWC Networks has not modified these.
- 8.17 Prior to the commencement of the first regulatory control period, PWC Networks provided a detailed submission to the Commission setting out its proposed pricing principles, and details of PWC Networks' proposed approach for establishing network reference tariffs.
- 8.18 PWC Networks' submission provided a qualitative discussion of its proposed tariff structure, relevant cost drivers and the allocation of costs, as well as an assessment of compliance with the principles set out in the NT Access Code. In essence, PWC Networks proposed that the costs of owning and operating the network would be recovered from users on a Fully Distributed Cost (FDC) basis, with contributions from each customer commensurate with the quantity and value of assets required to deliver the service to them.
- 8.19 Following public consultation, the Commission approved PWC Networks' NPPS for the first regulatory control period.
- 8.20 Subsequently, for the second and third regulatory control periods the Commission has accepted a high-level statement of pricing principles as sufficient, focusing on the effects of proposed changes in tariff levels.

⁸⁵ Clause 6.18.4 NER

⁸⁶ Clause 6.18.5 NER

⁸⁷ Clause 6.18.3 NER

- 8.21 The NPPS approved by the Commission for use in the third regulatory control period (2009-14) provided:
- a summary of the proposed changes to network tariffs over the regulatory control period;
 - a high-level assessment of compliance with clause 74 of the NT Access Code;
 - a high-level assessment against the principles set out in the NER with which a pricing proposal must comply;
 - a description of the principles and methods used in establishing tariffs for alternative control services; and
 - a framework for negotiating discounted network tariffs for standard control services.
- 8.22 PWC Networks assigns customers to one of two tariff classes:
- Customers using greater than 750MWh of electricity per annum are charged a multipart tariff comprising a system availability charge, peak and off-peak energy charges in declining block form and peak and off-peak demand charges in a declining block form.
 - Customers using less than 750MWh of electricity per annum are charged a simple tariff comprising a daily system availability charge and a cents per kilowatt hour energy charge (with the cents per kilowatt charge differing between domestic and commercial customers).
- 8.23 In the third regulatory control period, PWC Networks converged the three separate regional tariff schedules (Darwin-Katherine, Alice Springs and Tennant Creek) into a single NT-wide tariff schedule on the basis that:
- The decision to move away from regional tariffs reflects a number of key considerations by Power and Water. Firstly, the imposition of Territory wide tariffs is not economically inefficient. While network tariffs in Tennant Creek have reduced relative to the Po as a consequence of the decision to create the new tariffs, this reduction is not material and is unlikely to signal behaviour to any extent. Moreover, the decision will impact on transaction costs for Power and Water, specifically the ongoing maintenance of multiple tariff schedules. Establishing NT wide network tariffs will eventually reduce the administrative costs for Power and Water.*⁸⁸

Commission's preliminary considerations

- 8.24 The NT Access Code provides that the responsibility for determining the structure of its network prices lies primarily with the network service provider. The network service provider has a greater understanding of:
- its cost structures;
 - users' needs as reflected in demand patterns and the sensitivity of those demands to price signals; and
 - network utilisation and the likelihood of the emergence of congestion.

⁸⁸ Power and Water Corporation, *Pricing Principles and Methods Statement 1 July 2009 to 30 June 2014*, January 2009, page 7.

- 8.25 However, the process is overseen by the Commission with the Commission required to assess whether the proposals are consistent with the objectives stated in the Code.
- 8.26 In previous network price determinations, the Commission has focused on establishing an efficient opening level for required revenue (determining Po) and setting an efficient price path (determining the X factor), leaving limited time and resources to give detailed scrutiny to PWC Networks' NPPS and the structure of tariffs.
- 8.27 The current tariff classes and tariff structure have been in place with minimal change since the commencement of the current regulatory regime. While a high-level statement of pricing principles was sufficient in previous regulatory control periods, changes in the Territory electricity market, including the introduction of full retail contestability and the emergence of competition in the retail sector, suggest a more comprehensive review of network tariff classes and tariff structures is warranted.
- 8.28 The Commission was aware of concerns expressed by some customers and market participants that, in seeking to balance the quest for detail against the administrative costs of doing so, PWC Networks may have assigned too little weight to the objectives of efficiency and cost reflectivity.
- 8.29 Further, developments nationally over the last decade have led to more comprehensive documentation and justification of the methodologies underlying the structure of regulated network tariffs.
- 8.30 The NPPS will, when approved, provide a basis for establishing network reference tariffs. While the tariffs themselves will be reviewed annually, the principles and methodology on which they are based will apply for the full term of the five-year regulatory control period.
- 8.31 Accordingly, for the principles and methodology to remain relevant and appropriate, they must allow both for known market developments and the uncertainties that naturally exist over a timeframe of this length. This requires careful balancing of appropriate quantitative analysis to support the choices made while minimising prescribing specific formulae or values that may constrain the network service provider in later years of the regulatory control period.

Commission's preliminary position

- 8.32 The Commission's preliminary position was that PWC Networks' regulatory proposal should include:
- a draft NPPS to apply to the setting of individual prices; and
 - for the regulatory year commencing 1 July 2014, an indicative Network Pricing Proposal and Tariff Schedules consistent with all other elements of the regulatory proposal.
- 8.33 The NPPS should set out the details of principles and methods to be used for defining the individual standard network access services to be supplied by the network service provider and for establishing the reference tariffs to apply to those services.
- 8.34 It should define the tariff classes into which network users are divided and provide modelling, where appropriate, and qualitative analysis to support the constitution of those tariff classes. This should include discussion of the options considered and

reasons for the choices made in relation to differentiating (or not differentiating as the case be) tariffs because of:

- the user's geographical and electrical location;
- the quantities in which the relevant network access service is to be supplied or is supplied;
- the pattern of network usage;
- the technical characteristics or requirements of the user's load or generation;
- the nature of the plant or equipment required to provide the network access service; and
- the periods for which the network access service is expected to be supplied.⁸⁹

8.35 The NPPS should also demonstrate compliance with:

- the objectives of network pricing set out in clause 74 of the NT Access Code;
- the objectives of price regulation set out in clause 63 of the NT Access Code; and
- the pricing principles set out in clause 6.18.5 of the NER, where these are not inconsistent with the requirements of the NT Access Code.

8.36 The indicative Network Pricing Proposal and tariff schedules for the year commencing 1 July 2014 should be consistent with the requirements of clause 6.18.2(b) of the NER.

Views in submissions

8.37 The NTMEU did not comment on this matter.

8.38 Both PWC and QEnergy expressed concerns as to whether there is enough time allowed for effective evaluation of the proposed network tariffs.

8.39 QEnergy expressed concern that sufficient time is allocated to PWC justifying its current allocation of revenue recovery, through principles of cost reflective pricing, between the various centres of Darwin / Katherine, Tennant Creek and Alice Springs, having particular regard to the incentives within the current system for PAWC to unduly inflate its network prices in competitive market areas such as Darwin / Katherine. The implication of this would be to ensure that smaller consumption customers – where there are regulated price impediments to competition – are more fully protected to PWC and less open to competitive forces.

8.40 In addition, QEnergy expressed the view that a full assessment of the cost basis for prices, including a building block assessment should be conducted to assess whether regional network tariffs are indeed cost reflective.

8.41 PWC agreed in principle with the requirement to include an indicative Networks Pricing Proposal for the first year of the regulatory control period in its regulatory proposal to demonstrate compliance with the provisions of clauses 74 and 63 of the NT Access Code and consistent with the requirements of clause 6.18.2(b) of the NER, but noted that its ability to meet all of the NER requirements in the required

⁸⁹ Clause 74(1)(b) NT Access Code

timeframes will be on a best endeavours basis, as the requirements in the NER are much more onerous than in the NT Access Code.

- 8.42 PWC advised that it is continually mindful of the need for access prices to send appropriate signals to network users, and to ensure that cross subsidisation is kept to a minimum. PWC advised that, as part of the 2014 Network Price Determination process, it intends to undertake a major review of its pricing structures, particularly in relation to the declining block tariff arrangements and the 750MWh per annum threshold for the application of demand charges. The review will also canvass more cost reflective locational price signals, and standby and embedded generation charges.

Commission further considerations

- 8.43 The Commission is mindful of the constrained timeframe for approval of network tariffs set out in the NT Access Code. It is for this reason that PWC will be required to provide an indicative tariff proposal for the first year of the regulatory control period as part of its regulatory proposal.
- 8.44 This will enable the Commission to assess the proposed structure of network tariffs against the requirements of the NT Access Code and relevant provisions of the NER.

Commission final decision

- 8.45 The Commission has decided that no change is necessary to this aspect of its preliminary position.
- 8.46 With respect to annual pricing proposal approval process for the second and each subsequent regulatory year of the regulatory control period, the approval process will be the same as for the current regulatory control period, but PWC will be expected to provide more detailed information on how tariffs have been calculated, rather than simply submitting tariff schedules.

Capital contributions principles and methods

Requirements of the NT Access Code

- 8.47 Clause 81 of the NT Access Code requires that, prior to commencement of each regulatory control period, the network service provider must provide to the Commission a draft statement providing details of principles and methods for establishing capital contributions.
- 8.48 The capital contributions and charges must be established in accordance with the principles set out in clause 80 of the NT Access Code.

Requirements of the National Electricity Rules

- 8.49 Clause 6.21.1 provides that a DNSP may require an embedded generator or distribution customer that requires a new connection or a modification in service for an existing connection to establish prudential requirements for connection service and/or distribution use of system service.
- 8.50 Arrangements for prudential requirements may include, among other things, financial capital contributions and are a matter for negotiation between the DNSP and the embedded generator or distribution customer.

Summary of current arrangements

- 8.51 PWC Networks satisfies the NT Access Code obligation through its Networks Capital Contributions Policy (NCCP).
- 8.52 As well as meeting PWC Networks' obligations under the NT Access Code, which only applies to the regulated networks, PWC also applies the NCCP in unregulated areas and has developed the NCCP with regard to its obligations under the *Planning Act* as it relates to developer contributions.
- 8.53 Approval of the NCCP by the Commission relates only to PWC Networks' obligations under the NT Access Code and should not be construed as validating the NCCP for any other purposes.
- 8.54 The NCCP approved by the Commission as part of the 2009 Network Price Determination for use in the third regulatory control period covers:
- the types of works for which a capital contribution may be required;
 - matters relevant to the sizing and standards of works;
 - how the capital contribution is calculated; and
 - various prudential and administrative matters.
- 8.55 The Commission notes that, in April 2012, PWC submitted a revised NCCP for use for the remainder of the third regulatory control period for the Commission's consideration and approval. The Commission is in the process of reviewing the revised NCCP and may undertake a consultation process as part of its assessment.

Commission's preliminary position

- 8.56 The Commission's preliminary position was that PWC Networks should include in its regulatory proposal a draft Capital Contributions Principles and Methods Statement to apply to the setting of capital contributions towards works that would not be commercially viable without that capital contribution.
- 8.57 The Commission expects that the draft Capital Contributions Principles and Methods Statement submitted as part of PWC Networks regulatory proposal for the 2014 Network Price Determination will be substantially the same as the final version of the revised NCCP received in April 2012.

Views in submissions

- 8.58 PWC agreed with the Commission's proposed approach.
- 8.59 QEnergy and the NTMEU did not comment on this matter.

Commission final decision

- 8.60 The Commission has decided that no change is necessary to this aspect of its preliminary position.

CHAPTER 9

Next steps

- 9.1 The NT Access Code is not prescriptive with respect to the timeframes for the consultation processes leading up to a network price determination. The Commission will adopt the timeframes outlined in the NER where these are not inconsistent with the requirements of the NT Access Code.
- 9.2 To align to timeframes required under the NER, the Commission must commence consultation on its Framework and Approach at least 24 months before the end of the current regulatory control period (30 June 2012) and complete the process at least 19 months before the end of the current regulatory control period.
- 9.3 In consultation with PWC and the AER, the Commission will develop the RIN⁹⁰ and associated financial models that set a high but achievable level of data provision to be required from PWC.
- 9.4 PWC Networks will be required to submit a Regulatory Proposal which must include (but is not limited to):
 - a services classification proposal;
 - information required by the Commission in order to make the distribution determination to apply to PWC Networks for the regulatory control period and approve the pricing proposals to apply to PWC Networks during the regulatory control period, as detailed in the RIN;
 - full documentation of the cost allocation methodology used to allocate costs to the regulated network business, between standard control and alternative control services and between customer classes and geographic regions;
 - a draft statement setting out details of the principles and methods to be used for defining the individual standard network access services to be supplied by the network service provider and for establishing the reference tariffs to apply to those services as required under clause 74(5) of the NT Access Code;
 - a draft statement providing details of principles and methods for establishing capital contributions as required under clause 81(2) of the NT Access Code; and
 - for the regulatory year commencing 1 July 2014, an indicative Network Pricing Proposal and Tariff Schedules consistent with all other elements of the regulatory proposal.
- 9.5 To further align with the process and timeframes of the NER, the Commission proposes to adopt the following in relation to the 2014 Network Price Determination.

⁹⁰ The RIN will be issued pursuant to the Commission's power to require information under section 25 of the *Utilities Commission Act*

- PWC Networks is to submit its regulatory proposal at least 13 months before the end of the current regulatory control period (31 May 2013).
 - If the regulatory proposal is non-compliant with a requirement of the NT Access Code or any other requirement set out in the Commission's final Framework and Approach paper (including compliance with relevant provisions of the NER) in any respect, the Commission will advise PWC Networks as soon as practical, stating why, and in what respects, the regulatory proposal is deemed to be non-compliant.
 - PWC Networks will have 20 business days to resubmit its regulatory proposal, but can only amend those parts of the proposal that have been identified as non-compliant.
 - The Commission will publish the (re)submitted regulatory proposal and allow at least 30 business days for interested parties to make submissions. The Commission may publish an issues paper examining issues related to the regulatory proposal.
- 9.6 The Commission will issue a draft Determination and allow at least 30 business days for submissions. After publication of the draft Determination, PWC Networks may submit a revised regulatory proposal. The Commission will decide whether or not to call for submissions on the revised regulatory proposal.
- 9.7 The NT Access Code specifies timeframes for the Commission's final determination and for the submission and approval of network tariffs.
- 9.8 At least 90 days before the commencement of the regulatory control period (1 April 2014),⁹¹ the Commission will publish its final determination.
- 9.9 At least 60 days prior to the start of the first financial year of the regulatory control period (1 May 2014),⁹² PWC Networks will be required to submit its initial Pricing Proposal for the first year of the regulatory control period.

⁹¹ Clause 70(4) NT Access Code

⁹² Clause 78(1) NT Access Code