REVIEW OF WHOLESALE ELECTRICITY GENERATION MARKET

DRAFT REPORT FOR CONSULTATION

December 2013

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Call for Submissions

Submissions are invited from interested parties concerning the issues raised in this draft report and any related matters.

Submissions should be directed to the Utilities Commission of the Northern Territory (the Commission):

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The closing date for submissions is **Thursday 23 January 2014**.

Late submissions will not be accepted unless agreed in advance by the Commission.

Confidentiality

In the interest of transparency and to promote informed discussion, the Commission will make all submissions publicly available.

Persons wishing to submit confidential information should:

- clearly identify the relevant sections of the submission that are confidential, so that the remainder of the document can be made publicly available; and
- provide a copy of the submission/s suitable for publication with any confidential material removed.

Confidential information is defined in section 26 of the *Utilities Commission Act* as information that could affect the competitive position of a licensed entity or other person or is commercially sensitive for some other reason.

Public Access to Submissions

Subject to the above, submissions will be made available for public inspection at the office of the Commission and on its website (www.utilicom.nt.gov.au).

To facilitate publication on the Commission's website, submissions should be provided electronically by disk or email. However, if this is not possible, submissions can be made in writing.

COMMISSION'S SUMMARY

Focus of Review

1.1 The Commission is an independent statutory authority responsible for economic regulation of the electricity supply industry, which is governed by the *Utilities Commission Act* (the Act), the *Electricity Reform Act* and associated legislation.

1.2 Section 31 of the Act, requires the Commission to conduct an inquiry into any matter that the Minister[1], by written notice, refers to the Commission.

1.3 On 23 September 2013, the Commission received notice from the Minister requesting that the Commission conduct a review into wholesale electricity market arrangements that are appropriate for the Northern Territory, and to recommend preferred arrangements. The Terms of Reference from the Minister are at Attachment A.

1.4 The referral from the Minister identified that, in undertaking the review, the Commission should consider the following market objectives to:

(a) promote the economically efficient, safe and reliable production and supply of electricity and electricity related services of the Territory;

(b) facilitate competition among generators and retailers in the Territory's electricity system, including by enabling efficient entry of new competitors;

(c) minimise the long-term cost of electricity supplied to customers from the Territory's electricity system; and

(d) encourage the use of measures that more efficiently manage the volume of electricity used including the variations between peak and average loads.

1.5 The referral from the Minister recognised that the National Electricity Market (NEM) is an established best practice regulatory framework that has been developed over a decade and provides a reference point for the Territory's future regulatory framework.

1.6 The referral also noted that the Commission should have consideration for the Territory Government's package of electricity supply industry reforms, including greater alignment of the Territory's regulatory framework with the NEM, transfer of network regulation to the Australian Energy Regulator (AER) and adoption of the National Electricity Rules (NER).

1.7 The Minister requested that the Commission consider the applicability of other wholesale market arrangements (including the NEM and the South West Interconnected System (SWIS) of Western Australia (WA)) that may be suitable to the Territory's circumstances and capable of cost-effectively replacing sole reliance on bilateral contracting. The Commission was to provide recommendations regarding the design and rules that could be adopted initially in the Darwin-Katherine generation market.

[1] For the purposes of the *Utilities Commission Act*, the Minister is the Regulatory Minister (the Treasurer).

The Territory Market

1.8 The Northern Territory's current regulatory framework was introduced on 1 April 2000 and 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 framework are:

- third party access to the Darwin-Katherine, Alice Springs and Tennant Creek electricity networks;
- all customers became contestable from 1 April 2010; and
- an independent economic regulator, the Commission, to regulate monopoly electricity services, license market participants and enforce regulatory standards for market conduct and service performance.

1.9 Power and Water Corporation (PWC) is the main electricity business participating in the market systems, with functions that include generating the majority of electricity used, operating the power systems and electricity networks, and supplying retail services. PWC is also a major electricity supplier in regional and remote parts of the Territory, and is the water and sewerage service provider throughout the Territory. [2]

1.10 PWC is a vertically integrated Territory government owned corporation with generation, network and retail business units operating as separate businesses. The commercial relationship and transactions between each unit are subject to oversight and regulation by the Commission.[3] PWC is also subject to oversight by a shareholding Minister (currently the Treasurer) and a portfolio Minister (currently the Minister for Essential Services).

1.11 PWC is the dominant electricity retailer operating in the Territory in recent years, supplying electricity to 82 545 customers at 30 June 2013.[4]

1.12 The Commission has also granted standard electricity retail licenses to QEnergy Ltd (licensed February 2011) and ERM Power Retail Pty Ltd (licensed June 2012).

1.13 PWC is the main electricity generator, with about 93 per cent of generation capacity in the market systems. There are four other generators producing electricity in the Darwin-Katherine and Alice Springs systems. However, these businesses generate electricity under contract for PWC rather than selling directly to an electricity retailer or to customers, and PWC provides the fuel used for electricity generation.[5]

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[2] Electricity supply in regional and remote centres is managed through a contract for service model (most often the Territory Government) and a service provider (in most cases, PWC or a PWC subsidiary). These systems include the 72 communities and 82 outstations where essential services are provided through the Territory Government Indigenous Essential Services program, three mining townships where electricity is supplied by the associated mining company, and eight remote townships. The three mining townships are Nhulunbuy, Alyangula and Jabiru. The eight remote townships are Timber Creek, Borroloola, Daly Waters, Elliott, Newcastle Waters, Kings Canyon, Yulara and Ti-Tree.

[3] Regulatory instruments include the licensing framework and the Northern Territory Electricity Ring-Fencing Code.

[4] Power and Water Corporation Annual Report 2013, page 40.

[5] Utilities Commission, March 2013, 2011-12 Power System Review, pages 81-85. These generators are located at Pine Creek (Darwin - Katherine), Shoal Bay (Darwin City Council waste facility), Brewer Estate (Alice Springs) and Uterne (solar station in Alice Springs).

1.14 The networks business division of PWC (PWC Networks) own and operate the Darwin-Katherine, Alice Springs and Tennant Creek electricity networks, which comprise 781 kilometres (km) of transmission lines and 8 083 km of distribution lines.[6]

1.15 The System Control function is undertaken by PWC. The System Controller has statutory responsibilities for monitoring and controlling the operation of the power systems to ensure the power systems and electricity networks operate reliably, safely and securely in accordance with the System Control Technical Code.

Draft Report

1.16 The Commission engaged Oakley Greenwood to assist with the review. Oakley Greenwood has provided a draft report at Attachment B.

1.17 The draft report proposes establishment of a Northern Territory Electricity Market (NTEM) that can be developed readily as a competitive pool market comprising a simplified form of economic system-wide dispatch and a longer term reliability (generation capacity) assurance mechanism based on financial contracts.

1.18 The draft report provides detailed explanation of the various design elements of the NTEM, including establishment of a Reliability Assurance Mechanism, generation reliability standards, energy trading mechanisms and market trading rules.

1.19 The draft report provides an examination of the current Territory electricity supply arrangements including market processes. It notes that the day-to-day processes currently used between PWC's generation business unit (PWC Generation), System Control, PWC Networks and PWC's gas unit are broadly consistent with the processes needed to implement the proposed energy trading arrangements, although each of these processes needs to be made more rigorous and transparent in order to function as a robust market.

1.20 The report identifies a number of characteristics of the Territory's electricity supply industry that allow for a relatively simple, and therefore less costly, market design than is the case elsewhere, including:

- relatively stable weather at a given time of the year leads to relatively predictable total customer demand;
- dominance of gas as the fuel for power generation and generator technologies that can be started in no more than a matter of hours; and
- flexibility and lack of penalty for changing gas requirements within a day.

1.21 The draft report and proposed market design assume a number of market characteristics, including functional separation of PWC Generation, and clear and demonstrable independence of System Control and PWC's gas unit. The Commission notes that these issues are currently being considered by the Territory Government and on 13 December 2013, the Deputy Chief Minister announced restructuring of PWC to create stand-alone government owned corporations for PWC Generation and PWC's electricity retail unit from 1 July 2014.[7]

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[6] Power and Water Corporation Annual Report 2013, page 40.

[7] Media Release, New PWC Electricity Retail and Generation Corporations, the Honorable David Tollner MLA, Deputy Chief Minister, 13 December 2013

1.22 The Commission believes that the model meets the objectives set by the Territory Government (as detailed in the Commission's Terms of Reference) and also has the advantage of being able to be applied to Territory circumstances relatively simply. This is achieved by formalising and making more rigorous and transparent current energy trading arrangements with potential for an initial version of the model to be initiated within a short timeframe (assuming functional separation is achieved).

1.23 The Commission notes that adoption of an energy-only market (such as the NEM) could be problematic, since generation investment decisions in such a market are based on real-time market prices that only support the recovery of investment costs through short-term energy market payments. In such a market, energy prices must, at times, rise well above short-run costs. Such a market may be unworkable in the Territory at the current time due the dominance of a single generator (PWC Generation), with strict regulatory measures being required to ensure that such market power is not misused.

1.24 The proposed NTEM adopts a separate investment and energy trading mechanism where a central body (Independent Market Operator – termed a Reliability Manager in Oakley Greenwood's report) contracts and makes payment to generators to be available for dispatch (security constrained gross dispatch), a mechanism that has some similarities to that applied in the WA Wholesale Electricity Market (WEM), but is based on financial instruments, as per the NEM, rather than physical contracts. The use of financial instruments leaves open the possibility of retiring the Reliability Assurance Mechanism in the future if market conditions are suitable.

1.25 The key features are summarised in section 4.6 Summary of recommended strategic direction of the Oakley Greenwood report at Attachment B.

1.26 The draft report provides a comparison of the rules of both the NEM and WA WEM. The Reliability Assurance Mechanism is similar to some elements of the WA WEM, but other components of the WA WEM rules would require more changes than would the operational, commercial and governance features of NER. The Commission supports the view that many design elements of the NER provide a suitable template for the Territory.

Key Areas of Interest

1.27 The Commission seeks comments from interested stakeholders on key aspects of the draft report::

- the proposed establishment of a NTEM with separate reliability assurance and energy trading mechanisms;
- the establishment of a Reliability Assurance Mechanism to ensure relatively stable market prices based on cost of production and a Reliability Manager (new role);
- the proposed energy trading mechanism;
- establishment of the Independent Market Operator function;
- better clarification of the roles and independence of System Control;
- the development of market rules, using the NER as a template;
- proposed implementation options, including possible interim arrangements and transition path; and
- any other areas of interest in the draft report.

Who should consider the Draft Report?

1.28 The Commission's view is that the following stakeholders should consider the revised policy and provide comments as required:

- PWC;
- market participants and potential market participants (including generators, network providers and retailers);
- System Control; and
- any other interested stakeholders.

Process for Consultation

1.29 Consistent with good regulatory practice, the Commission has released the draft report by Oakley Greenwood to facilitate discussion with industry participants and stakeholders on the matters raised in the report.

1.30 The Commission invites submissions on the draft report by Thursday 23 January 2014.

1.31 Table 1 below outlines the proposed timeframe for consultation.

Table 1: Timeframe for consultation

Action	Timeframe
Release of draft report	23 December 2013
Submissions due	23 January 2014
Final Report to the Treasurer	28 February 2014
Tabling of Final Report (within six Legislative Assembly (LA) sitting days of receipt)	March 2014 LA sittings

1.32 The Commission will provide its final report and recommendations to the Minister by 28 February 2014 following consideration of submissions from stakeholders.

1.33 Section 34 (4) of the *Utilities Commission Act* requires the Minister to table a copy of the final report (excluding any confidential information) in the Legislative Assembly with six sitting days of receipt.

Acknowledgement

1.34 The Commission acknowledges the contributions of key stakeholders who were consulted and/or provided information on the NEM, WA WEM and Territory arrangements in the development of the draft report.

Attachment A Terms of Reference from the Regulatory Minister

INDEPENDENT REVIEW OF WHOLESALE GENERATION MARKET TERMS OF REFERENCE

Background

The electricity supply industry in the Northern Territory is dominated by the Power and Water Corporation (PWC). The Territory Government wishes to provide greater impetus to the application of competitive forces in the generation and retail sectors of the industry. These sectors are already contestable in the sense that legal impediments to the entry of new participants have been removed, with the Utilities Commission (Commission) being responsible for the licensing of new entrants. At the present time, however, there are no competitors to PWC in the generation sector, while in the retail sector two licensees may compete with PWC to sell electricity to all customers. However, PWC continues to be the primary retailer for smaller customers, including households and small business, as the current tariff structures and community service obligations in respect of these customers render them commercially unattractive.

A significant impediment to competition in the generation and retail sectors is the lack of operational wholesale market arrangements in the Territory, such as exists in the National Electricity Market (NEM) and in the South West Interconnected System of Western Australia (SWIS). At present, competing retailers in the Territory contract bilaterally with PWC Generation for the supply of electricity to meet customers' requirements. It is acknowledged that the current reliance in the Territory on direct (bilateral) contracting between generators and retailer, and the associated regulatory arrangements, is by far the most significant regulatory barrier to private sector investment in and entry into the Territory's generation market.

Referral

Pursuant to section 31 of the *Utilities Commission Act* 2000, the Commission is to conduct a review into wholesale electricity market arrangements that are appropriate for the Territory, and to recommend preferred arrangements.

Review Objective

The preferred wholesale market arrangements recommended by the Commission should be based on the achievement of the following market objectives:

(a) to promote the economically efficient, safe and reliable production and supply of electricity and electricity related services of the Territory;

(b) to facilitate competition among generators and retailers in the Territory's electricity system, including by enabling efficient entry of new competitors;

(c) to minimise the long-term cost of electricity supplied to customers from the Territory's electricity system; and

(d) to encourage the use of measures that more efficiently manage the volume of electricity used including the variations between peak and average loads.

It is recognised that the NEM is an established best practice regulatory framework which has been developed over a decade and provides a reference point for the Territory's future regulatory framework.

Review Scope

The Commission should consider the applicability of the NEM and SWIS models. In its consideration of appropriate wholesale market design, the Commission should have consideration for the Government's package of electricity supply industry reforms, including greater alignment of the Territory's regulatory framework with the NEM, transfer of network regulation to the Australian Energy Regulator and adoption of the National Electricity Rules. Any proposed market design arrangements would need to be compatible with these reforms.

The Commission is to consider wholesale market arrangements that are suitable to the Territory's circumstances and capable of cost effectively replacing sole reliance on bilateral contracting.

The Commission is to provide recommendations regarding the design and rules that could be adopted initially in the Darwin-Katherine generation market.

In recommending the appropriate wholesale market arrangements, the Commission is to develop the proposed rules in consultation with relevant stakeholders

Timing

In accordance with section 34 of the *Utilities Commission Act*, the Commission is to provide its final report to the Minister by 28 February 2014.

Review Process

The Commission is to undertake the review in the manner it considers appropriate, including consultation with key stakeholders.

Consultation should include, but not be limited to:

- Australian Energy Market Operator
- Australian Energy Market Commission
- Western Australian Independent Market Operator
- Economic Regulation Authority of Western Australia
- Power and Water Corporation
- Department of Treasury and Finance
- Other industry participants (or potential participants)

In accordance with section 32 of the *Utilities Commission Act*, the Commission will publish a notice of the review, including the Terms of Reference in the newspaper and send a copy to licensed entities.

Attachment B Wholesale Electricity Generation Market Review by Oakley Greenwood

This document has been published as a separate component to this consultation paper.

The report is available on the Commission's website www.utilicom.nt.gov.au or by contacting the Commission on 08 89 995480 or utilities.commission@nt.gov.au