

# National Competition Policy Review of the Queensland Electricity Act 1994 and the Electricity Regulation

## Draft Public Benefit Test Report

25 February 2002

Prepared by



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The closing date for submissions is:  
25 March 2002

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**This draft report has been prepared for discussion purposes.  
The views expressed in the report do not necessarily represent the  
views of the Queensland Government. Conclusions expressed in this  
draft report are preliminary only and may be revised in the light of  
submissions received during the consultation process.**

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## Executive summary

### Background

In April 1995, all Australian Governments signed three agreements committing themselves to National Competition Policy (NCP). The objective of NCP can be described as “to systematically explore opportunities to improve the efficiency of the private and public sectors and Australia’s international competitiveness, thereby bringing about growth in the economy and better living standards for all Australians”.<sup>1</sup>

A key element of NCP is the review of all legislation that restricts competition. All States are required to review and where necessary reform all legislation that restricts competition, by a revised deadline of 30 June 2002.

In response to its commitments under NCP, the Queensland Government is undertaking a review of *the Electricity Act 1994* and its subordinate legislation.

ACIL Consulting has been commissioned by Queensland Treasury to undertake a Public Benefit Test in relation to the non-safety provisions of the *Electricity Act 1994* (the Act) and the *Electricity Regulation 1994* (the Regulation).

This draft report presents, for public consultation, the preliminary findings and recommendations of this Public Benefit Test. Following this public consultation, the report and its recommendations will then be finalised and submitted to the Queensland Government.

### Scope of review

For NCP review purposes, the Electricity Legislation has been separated into electrical safety and non-safety aspects. The electrical safety aspects of the legislation are being considered under another NCP review.

The guiding principle for this Review is that legislation should not restrict competition unless it can be demonstrated that:

- the benefits of the restriction to the community as a whole outweigh the costs; and
- the objectives of the legislation can only be achieved by restricting competition.

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<sup>1</sup> Queensland Public Benefit Test Guidelines, p.6

The terms of reference specifically *exclude* provisions relating to electrical safety standards and provisions relating to the regulatory arrangements facilitating the competitive national electricity market (NEM).

While the broad principles and requirements for these reviews are prescribed under NCP, the Queensland Government has developed detailed guidelines for the undertaking of competition reviews in this State. These *Public Benefit Test Guidelines* are designed to ensure that the review processes are appropriate to the circumstances and reflect the Queensland Government's approach to NCP. In particular, the Guidelines require that the Government's Priority Outcomes for Queensland be considered as an integral part of the review process. The Guidelines also require that reviews focus on a thorough and meaningful analysis of the benefits and costs of alternative options, taking full account of employment, regional development, social, consumer and environmental effects.

## **The Objectives of the Act**

This first step of an NCP review involves identifying the objectives underlying the various regulations applying to the industry. The purpose is to identify accurately the objectives against which the performance of these regulations can be assessed. The objectives of the Act should address problems that arise from the unregulated supply and use of electricity. If there were no problems (socially undesirable outcomes) arising from the activities of electricity entities or individuals, there would be no justification for Governments to restrict these activities.

It is also important to identify the problems arising from the unregulated supply of electricity because this will identify any gaps in the legislation or any important issues that are outside the scope of the Act but not adequately addressed by other legislation.

In broad terms, the objectives of the Act and Regulation can be categorised into those relating to economic efficiency, safety, environmentally sound energy provision, secure supply and "fair and reasonable" terms.

ACIL considers at this stage that the objectives specified in the Queensland Electricity Act and Regulation are generally appropriate and targeted at addressing potential problems that may arise in an unregulated electricity market. However, given that the protection of the interests of customers is clearly a key objective of the Act from examining its development and current provisions, this could be included as a specific objective in the Act.

## The Relevant Market

The relevant direct market to which this Act relates is increasingly the National Electricity Market. The market for electricity has become increasingly competitive with electricity market reforms in Queensland allowing the entry of new sources of electricity supply. The latter includes independent power producers, co-generators and self-generators that sell surplus electricity onto the grid. The horizontal and vertical disaggregation of state owned electricity assets into competing entities has also contributed to increased competition among Queensland based entities. Queensland's entry into the NEM and interconnections with New South Wales has allowed direct competition between electricity suppliers in Queensland and other states. Electricity suppliers are also in competition with suppliers of gas and other fuels for certain industrial and commercial applications. Should proposed gas pipeline projects proceed, electricity on gas competition will increase further.

The level of competition affecting electricity suppliers in Queensland varies with market segment. There are contestable and non-contestable activities in the electricity supply industry. Generation and retailing are considered to be contestable markets and the Act encourages entry by new generators and retailers. Distribution and transmission are considered to be natural monopoly activities. The Act recognises this and provides for the regulation of these activities to prevent the abuse of monopoly power. In this way the Act seeks competitive outcomes from uncompetitive market structures. However the Act does not reinforce this natural monopoly. While distribution entities are assigned distribution areas, the Act provides for more than one distribution authority to be issued for a distribution area. Moreover, the Act provides for the issue of more than one transmission authority.

## Identification of restrictions

Measures in the Act and Regulation that have been identified as potentially restricting competition to some degree include provisions relating to:

- Legislated monopoly or exclusive arrangement for provision: under the existing structure of the Queensland electricity supply industry there are a number of services provided by monopoly suppliers.
- Licensing arrangements: to participate in the electricity supply industry persons are required to obtain a licence, they must meet certain criteria to hold a licence and they must comply with conditions imposed under the Act or the regulations.
- Price control: the Regulator, the Minister and the Queensland Competition Authority all have powers to approve prices and other terms of contracts between suppliers and consumers.
- Service quality or technical standards.



- Customer protection requirements such as standard customer contracts.
- Certain exemptions from licensing requirements for some suppliers.
- Various other miscellaneous provisions.

## Key findings and recommendations

On the basis of its analysis to date, ACIL considers that the Act is fundamentally pro-competitive. It facilitates competition in the electricity supply industry by allowing entry into competitive segments of the industry while at the same time containing provisions to protect consumers from the exercise of monopoly power. Most of the restrictive provisions identified in this Review have been put in place to restrict the activities of market participants who have a degree of monopoly power derived from the natural monopoly nature of certain activities. That is, these restrictions serve to increase effective competition or to ensure competitive outcomes. A summary of ACIL's assessment of the various restrictions is contained in Table 1.

The Act and Regulation are inextricably linked to the establishment of a competitive electricity market in Queensland, as part of the broader process of establishing the NEM. The significant benefits to Queensland from the establishment of a competitive electricity industry can at least in part be attributed to the Act and Regulation.

ACIL therefore considers that the overall thrust and broad elements of the regulatory framework established under the Act and Regulation (e.g. the licensing framework) provides an appropriate basis for competition in the industry, and provides a net public benefit.

This conclusion, however, does not mean that benefits would not have been greater with a different approach to regulation under the Act and Regulation. The NCP requires that alternative approaches to achieving the objectives are fully considered. The broad alternative options identified in the Public Benefit Test Plan for this review include:

- no restrictions;
- industry code of practice;
- sunset provisions;
- retention of some provisions; and
- a combination of the above.

ACIL's analysis of broad regulatory alternatives concluded that none would ensure that the objectives of the legislation are met and would not provide a framework for all electricity participants that promotes efficient, economical and environmentally sound electricity supply and use. In particular, unrestricted entry could allow the entry of unskilled or inappropriate operators in the generation, transmission or distribution

sectors whose participation in the industry may put at risk the safe and reliable operation of the electricity supply system. In addition, the removal of price controls would expose customers to the risk of monopoly pricing by those suppliers with market power, such as distribution businesses and retailers with non-contestable customers.

Also, given the potentially disastrous consequences for the security and safety of electricity supply from breaches of codes of industry practice, together with the existence of monopoly power, a move to full self-regulation is not considered feasible at this stage. However, it may be feasible to move in the direction of co-regulation, particularly in the competitive sectors of the industry.

It is therefore considered that the essential elements of the current regulatory framework including the licensing regime and price controls are justified and represent an efficient means of achieving the objectives of the legislation. This is consistent with conclusions of reviews of similar legislation in other jurisdictions. ACIL considers that an approach involving only relatively minor variations to the current regulatory arrangements represents the most feasible alternative to achieving the objectives of the Act and Regulation. ACIL does not therefore consider that substantial legislative change is required.

Nevertheless there are a number of individual areas where the Act and/or Regulation involve restrictions on competition that may not represent the best means of achieving their objectives.

Areas where some modification to the operation or administration of the current regulatory arrangements could be made include:

- Limit further the scope for any discrimination in issuing or amending authorities (e.g. by linking more directly to objects of the Act).
- Clearer statements could be made about the processes to be used in relation to special approvals, to avoid any possible perception that these could be used in an anti-competitive way.
- Remove the limitation on transmission entities from buying and selling electricity from the Act by introducing a new category of transmission authority for unregulated interconnectors or by including in policy or directive.
- Consider providing a greater role for the independent economic regulator (the QCA) in regulation of distribution prices for the Mount Isa-Cloncurry network and in retail prices for non-contestable customers.
- Require exemptions made by regulation to have sunset clauses.

Given that many of the potential modifications are likely to relate to how the legislation operates in practice, and therefore difficult to identify in a desktop review, views of stakeholders on these and other potential modifications are sought.

Table 1: Summary Assessment of Restrictions in the Electricity Act and Regulations

Restriction	Impact on competition	Assessment of costs & benefits	Conclusion/recommendation
<b>1. Legislated monopoly</b>			
Monopoly over non-contestable customers	Major – prevents competition in large part of retail market and necessitates ring-fencing to ensure effective competition for contestable customers	Domestic and other non-contestable customers prevented from receiving potential benefits from competition (lower prices, better services, greater choice etc). These need to be weighed against costs of technical systems for extending retail competition. Uniform tariff which benefits regional customers may not be sustainable in unregulated market.	May be alternative means of achieving social objectives  Queensland Government Public Benefit Test indicated benefits exceed costs. Restriction to be reviewed in 2 to 3 years.
<b>2. Restrictions on market entry (licensing)</b>			
Requirement to have relevant authority	Minor, as apply neutrally across electricity market participants	Requirement facilitates ensuring efficient & reliable supply at minimal cost to entities (and ultimately customers)	Retain
Special approvals	Minor, but may be potential if applied in discriminatory way	Benefits of addressing particular circumstances outweighs any potential costs	Retain, but make clearer statements about processes to be used
Issuing of authorities	Minor, but may be potential if applied in discriminatory way	Preconditions and processes for issuing authorities helps to achieve objectives at minimal cost	Consider whether Regulator's discretion needs to be further prescribed
Requirement to consider government policy in issuing authority	Potentially significant	Adverse impacts on competition (and ultimately prices to customers) need to be weighed against other policy objectives (e.g. environment). Benefit/cost assessment will depend on policy assessment process	Retain
Amendment of authorities	Minor, but may be potential if applied in discriminatory way		Retain
Authority Fees	Minor	Cost recovery appropriate, provided transparent and reflects efficient costs	Retain

Restriction	Impact on competition	Assessment of costs & benefits	Conclusion/recommendation
<b>3. Restrictions on market entry (prohibited interests)</b>			
Limitation on transmission authority to buy/sell electricity	Minor – may be unintended impact on unregulated interconnectors	Benefits to consumers of preventing market power outweigh costs	If objective applies only to state owned transmission entities, remove from the Act by creating new authority category or include in policy or directive.
Prohibition on holding generation and retail authority with retail area	Minor	Benefits to consumers of preventing market power outweigh costs	Retain
Prohibition on holding distribution and retail authority	Minor, reduces scope for misuse of market power	Benefits to consumers of preventing market power outweigh costs	Retain
<b>4. Price controls</b>			
Distribution pricing for Mount Isa-Cloncurry network	Minor	Necessary to protect consumers in non-contestable market segments against monopoly practices	Retain, but consider scope for greater role for QCA
Regulation of retail prices for non-contestable customers	Major - may be perception that pricing favours government-owned retailers in contestable market	Necessary to protect consumers against monopoly practices. Imposition of uniform tariff funded by CSO benefits regional customers at the expense of taxpayers.	Retain, but consider scope for greater role for QCA and/or sunset provisions for customers eligible to be contestable
<b>5. Prescribed quality or technical standards</b>			
Conditions of authorities	Minor	Conditions help to ensure economic, reliable and safe operation of system	Retain
Standard customer connection and sale contracts	Major	Necessary to protect consumers in non-contestable market segments against monopoly practices	Retain
Standards about quality of service	Minor	Necessary to protect consumers in non-contestable market segments against monopoly practices	Retain
<b>6. Restrictions on conduct of a business</b>			
Obligations to connect, supply and sell	Minor	Some compliance costs, but obligations protect customers and facilitate competition through access to networks	Retain, but note that need for obligation reduced if retail competition extended

Restriction	Impact on competition	Assessment of costs & benefits	Conclusion/recommendation
Retailer of last resort scheme	Minor	Benefits for customers likely to outweigh costs	Retain
Emergency rationing orders	Minor	Public interest objectives require ability for intervention in emergencies	Retain
Restrictions regulations	Minor	Enables management of isolated supply systems	Retain
Directions to State electricity entities	Minor, and intent pro-competitive	Enables government to pursue reforms	Retain
Certain conditions for supply and sale to non-contestable customers	Minor, as applies to monopoly providers	Benefits in customer protection likely to outweigh any costs	Retain
<b>7. Allocation of licences or rights denied to non-holders</b>			
Exemptions	Minor, but may be potential if applied in discriminatory way	Benefits likely to outweigh costs, provided used appropriately	Consider safety-related exemptions in developing safety-specific Act and consider sunset provisions for remaining exemption provisions
Allocation of special rights	Potentially significant	Benefits likely to outweigh costs, provided used appropriately	Allow expiry of automatic designation of State electricity transmission and distribution authorities as 'constructing authorities' and replacement with ability to grant by Regulation.

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# 1. Introduction and background

## 1.1 Purpose of this report

ACIL Consulting has been commissioned by Queensland Treasury to undertake a Public Benefit Test in relation to the *Electricity Act 1994* (the Act) and the *Electricity Regulation 1994* (the Regulation) as required under National Competition Policy (NCP). This requires an assessment of the restrictions on competition in the Act or Regulation in accordance with the terms of reference.

All electrical safety provisions (including the licensing of electrical contractors), together with those provisions relating to the regulatory arrangements to facilitate the competitive national electricity market, have been excluded from this review. These provisions are being reviewed under a separate NCP review process.

This draft report presents, for public consultation, the preliminary findings and recommendations of this Public Benefit Test. Following this public consultation, the report and its recommendations will then be finalised and submitted to the Queensland Government.

## 1.2 Context of review: National Competition Policy

In April 1995, all Australian Governments signed three agreements committing themselves to NCP. The objective of NCP can be described as “to systematically explore opportunities to improve the efficiency of the private and public sectors and Australia’s international competitiveness, thereby bringing about growth in the economy and better living standards for all Australians”.<sup>2</sup>

A key element of NCP is the review of all legislation that restricts competition. All States are required to review and where necessary reform all legislation that restricts competition, by a revised deadline of 30 June 2002.

The guiding principle for these reviews is that legislation should not restrict competition unless it can be demonstrated that:

- the benefits of the restriction to the community as a whole outweigh the costs; and
- the objectives of the legislation can only be achieved by restricting competition.

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<sup>2</sup> Queensland Public Benefit Test Guidelines, p.6

While the broad principles and requirements for these reviews are prescribed under NCP, the Queensland Government has developed detailed guidelines for the undertaking of competition reviews in this State. These *Public Benefit Test Guidelines* are designed to ensure that the review processes are appropriate to the circumstances and reflect the Queensland Government's approach to NCP. In particular, the Guidelines require that the Government's Priority Outcomes for Queensland be considered as an integral part of the review process. The Guidelines also require that reviews focus on a thorough and meaningful analysis of the benefits and costs of alternative options, taking full account of employment, regional development, social, consumer and environmental effects.

This Public Benefit Test therefore arises out of the need to undertake a competition review of the Act and Regulation to fulfil Queensland's obligations under NCP.

### 1.3 Terms of reference and scope of review

The terms of reference state that the purpose of the review is to make recommendations to the Queensland Government as to whether measures in the Act or Regulation identified as restricting competition should be retained, or whether legislative reform should be implemented. In doing so, the terms of reference require specific examination of the following matters:

- Clarification of the objectives of the legislation.
- Identification of the nature of restriction on competition.
- Analysis of the likely effect of the restriction on competition and on the economy generally.
- Consideration of alternative means for achieving the objectives of the Act, including non-legislative approaches.
- Interstate approaches to the regulation of the electricity industry.
- Those matters specified in Clause 1(3) of the Competition Principles Agreement<sup>3</sup>.
- Any employment and social impacts.

Measures in the Act and Regulation that have been identified (by internal Treasury reviews) as potentially restricting competition to some degree include provisions relating to:

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<sup>3</sup> The matters specified in Clause 1(3) are government legislation and policies relating to ecologically sustainable development; social welfare and equity considerations, including community service obligations; government legislation and policies relating to matters such as occupational health and safety, industrial relations and access and equity; economic and regional development, including employment and investment growth; the interests of consumers generally or of a class of consumers; the competitiveness of Australian businesses; and the efficient allocation of resources.

- Licensing arrangements: to participate in the electricity supply industry persons are required to obtain a licence, they must meet certain criteria to hold a licence and they must comply with conditions imposed under the Act or the regulations.
- Price control: the Regulator, the Minister and the Queensland Competition Authority all have powers to approve prices and other terms of contracts between suppliers and consumers.
- Service quality or technical standards.
- Customer protection requirements such as standard customer contracts.
- Certain exemptions from licensing requirements for some suppliers.
- Various other miscellaneous provisions.

As noted above, the terms of reference specifically *exclude* two other categories of provisions that have potentially anti-competitive implications:

- Provisions relating to electrical safety standards. The Electrical Safety Office within the Department of Industrial Relations is currently assessing all electrical safety provisions in the Act, including the licensing of electrical workers and contractors, as part of a wider work practice review.
- Provisions relating to the regulatory arrangements to facilitate the competitive NEM. These provisions — in line with similar arrangements applying in other States — have come about as a result of national agreement to establish the NEM and were developed having full regard to NCP principles.

The full terms of reference for the review are at Attachment A1.

## 1.4 Review process

This review is being conducted in accordance with the Queensland Public Benefit Test Guidelines as a ‘minor public review’. Whereas major public reviews entail public hearings and detailed quantitative assessment of the impacts of restrictions on competition, this review utilises more targeted consultation and focuses on qualitative rather than quantitative assessment. Under this approach, should a major restriction on competition be identified, a more detailed analysis of that restriction may be called for, including a more complete stakeholder consultation process.

ACIL nevertheless will subject all provisions of the Act and Regulation to its own rigorous assessment before reaching conclusions and making recommendations.

This report represents a draft report. It outlines key issues and, where appropriate, has made preliminary findings and recommendations. To date, preparation of the report has been undertaken as a desktop exercise.



The consultants are now seeking submissions from interested parties providing additional information and comments on the material presented in this report. The report will then be finalised taking into account the submissions made by interested parties and submitted to Government for consideration.

## 1.5 NCP legislation review in other States and Territories

State legislation governing electricity supply industries involves a number of restrictions on competition. These include licensing requirements, the granting of exclusive rights to market segments in transmission, distribution and retail, and restrictions on business conduct, including price setting. Over the past decade there has been significant restructuring in electricity supply industries in an attempt to foster greater efficiency, increased competition and interstate trade. In this process, many jurisdictions have substantially amended legislation or introduced new legislation, both to implement the NEM and to encourage more efficient supply arrangements within States.

All States and Territories have completed, or are in the process of conducting, NCP legislative reviews of their electricity legislation and regulations. Progress varies across States, but all are committed to reviewing their legislation and implementing any necessary reforms by the end of 2002.

- NSW has decided not to review the *Electricity Supply Act 1995* as major amendments are being made to this Act. *The Electricity Transmission Authority Act 1994* and the *Electricity (Pacific Power) Act 1950* are not to be reviewed. This is because the former has been repealed and the latter is to be repealed, after a transitional phase, due to the establishment of a new corporation from Pacific Power's generation business.
- Victoria replaced the *Electricity Industry Act 1993* with the *Electricity Industry Act 2000*. The new Act was assessed against NCP principles before it was enacted and it was decided that the new Act promoted rather than restricted competition.
- Western Australia completed its review of the *Electricity Act 1945* and *Electricity Corporation Act 1994* and the government is in the process of implementing a number of amendments. Further reforms have since been proposed and the government will review these reforms in accordance with NCP principles.
- Last year, South Australia completed its review of the *Electricity Act 1996*, the *Electricity Corporation Act 1994* and the *National Electricity (South Australia) Act 1996*. No reforms were recommended following the review as it is judged that these Acts

implemented aspects of the NEM reforms. The SA Review<sup>4</sup> concluded that:

“... the costs associated with the licensing regime are outweighed by the benefits to the public of an efficient, safe and sustainable electricity supply industry. On this basis, therefore, the restriction on competition represented by the licensing regime and in particular the licence preconditions, is justified in the public interest.”

- Tasmania has recently completed its review of the *Electricity Supply Industry Act 1995* and repealed a number of electricity related Acts without review. The review concluded that:

“... while the ESI Act provides a framework for competition ... its application is limited in that the structure of the industry comprises three monopoly companies — a structure which is established outside the operation of the Act... This structure restricts the potential of the ESI Act to bring about competitive activity in the industry and has a much more significant effect on competition than does the Act.”

A number of recommendations involving relatively minor changes were made to enhance the operations of the Act in encouraging competition. At the same time it was recommended the licensing requirements, and the division between the market into contestable and non-contestable customers, pricing provisions relating to non-contestable customers and technical standards requirements be retained.

- The Northern Territory reviewed its *Electricity Act* and Regulations. This review considered options for reform of the Territory’s electricity supply industry. In response, the Government introduced a package of legislation that repealed the *Electricity Act*, introduced the *Electricity Reform Act*, the *Electricity Networks (Third Party Access) Act* and the *Utilities Commission Act*.

The National Competition Council (NCC) has accepted the results of the Northern Territory, Victorian and the ACT reviews as meeting CPA clause 5 obligations. The Queensland, NSW, South Australian, Western Australian and Tasmanian reviews will be considered by the NCC in its 2002 assessment. The NCC has sought further information from NSW concerning whether its proposed amendments to the *Electricity Supply Act* restrict competition and whether there are any restrictions remaining in the *Electricity (Pacific Power) Act*.

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<sup>4</sup> National Competition Policy Review of Legislative Restrictions on Competition in the South Australian Electricity Supply Industry, Report Prepared by the Electricity Reform and Sales Unit on Behalf of the South Australian Department of Treasury And Finance, August 2000.

Generally speaking, the NCP Reviews have found State and Territory electricity legislation to be consistent with NCP legislation. This reflects the fact that most Acts have been introduced or amended with the objectives of encouraging competition in contestable segments of the industry, regulating natural monopoly and implementing the NEM. Recommendations for change have not altered the fundamental features of the regulatory approaches, such as licensing, but have tended to focus on amendments to make the legislation work more effectively in meeting objectives.

## 1.6 Structure of report

The following chapter provides an overview of the Queensland electricity industry structure, market, and regulatory framework. It also provides an outline of the concept of competition in the context of the Queensland electricity and broader energy markets. This provides necessary contextual information for subsequent discussion and assessment of the Act and its subordinate legislation.

The remainder of the report is then structured around the key steps associated with a NCP legislation review.

As the starting point of the review, Chapter 3 identifies and examines the objectives of the Act and Regulation.

Chapter 4 assesses the impacts of provisions in the Act and Regulation that restrict competition. In this section the focus is on specific provisions of the Act that ACIL has concluded may be restricting competition in significant way. Where appropriate, we discussed alternative provisions that may better achieve the objectives of the Act. The chapter concludes with an overall assessment of the costs and benefits of the Act and Regulation.

Chapter 5 provides an assessment of alternative approaches to achieving the objectives of the Act and Regulation.

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## 2. Overview of Queensland electricity industry and regulatory framework

### 2.1 Background: national electricity reforms

The Queensland electricity industry has undergone substantial reform over the last decade. This was partly in response to the establishment of a competitive interconnected electricity market in the eastern States of Australia. This followed an agreement by the states in 1995 to create a National Electricity Market (NEM).

In both Queensland and other participating States, establishing the NEM has involved a range of related reforms directed towards increasing competition and efficiency in the provision of electricity. These include:

- Vertically integrated state owned monopolies have been disaggregated into separate generation, transmission, distribution and retail businesses.
- In some States, notably Victoria, electricity businesses have been privatised.
- Generation has been divided into competing generating companies.
- A national wholesale spot market for electricity across the eastern States has been established.
- Competition between retail companies to sell electricity to final consumers is being progressively introduced, commencing with large users first (with different timetables in each state).
- New regulatory structures have been established, with the ACCC regulating at the national level (transmission), and state-based regulators regulating distribution and retail functions.
- Various new institutions have been established to undertake certain functions associated with the operation of the NEM (NEMMCO, NECA).

The NEM, in its current form, commenced in Queensland, New South Wales, South Australia, Victoria and the ACT on 13 December 1998. Tasmania is to join the NEM when the Basslink connection is completed.

The NEM continues to evolve. Recently a NEM Ministers Forum was established to guide policy development on the NEM.

### 2.2 Electricity reform process in Queensland

In Queensland the electricity reform process commenced with the passage of the Electricity Bill 1994, which sought to establish the initial framework for a competitive electricity industry.

In January 1995 the then Government corporatised and restructured the Queensland Electricity Commission and seven electricity Boards into a generation company (Austa Electric), a transmission business (Queensland Electricity Transmission Corporation) and seven regional distribution companies. These transmission and distribution companies were in turn owned by a holding company, the Queensland Transmission and Supply Corporation (QTSC).

In 1996 the Government commissioned a Task Force to recommend a set of structural, institutional and regulatory arrangements for the Queensland industry to maximise the opportunities from the emerging competitive national electricity market. Following the Task Force's report submitted in December 1996, further disaggregation of the industry was undertaken. The following changes were introduced in the 1997 legislative amendments:

- The generation company, Austa Electric was broken up into three separate state owned generation companies (CS Energy, Stanwell and Tarong Energy) and one engineering service company;
- QTSC was disbanded and the transmission and regional distribution businesses were established as government owned corporations in their own right;
- Three new retail businesses covering the north, central and southern regions of Queensland were established as subsidiaries of the distribution businesses (two of these were later merged); and
- Within the transmission business, the Queensland System Operator (QSO), a separate ring-fenced entity was established to undertake the system operation function and to manage the Queensland interim market until the advent of the NEM.

These structural changes were designed to facilitate the establishment of a competitive electricity industry in Queensland. To date, none of generation, transmission and distribution entities have been privatised. However, there is private sector participation in generation and retailing.

A series of further legislative changes was made in 1997 to provide the underpinning for the competitive reform of the Queensland electricity industry, in preparation for the establishment of the NEM. The objective of the reforms was to promote sustainable efficiency and low prices to users and to enable the Queensland electricity industry to be a successful competitor in the NEM.

In May 1997 legislation was passed — the *Electricity – National Scheme (Queensland) Act 1997*— to allow for the application in Queensland of the National Electricity Law. All jurisdictions participating in the NEM have passed similar enabling legislation to provide a consistent legislative foundation for the national market.

In August 1997 changes were made to the *Electricity Act 1994* to provide for the establishment of an interim wholesale market in Queensland.

This was followed in November 1997 by further changes to the *Electricity Act 1994* to provide a new regulatory framework for the industry.

Competition (known as retail contestability) for retail customers in Queensland commenced on 29 March 1998 when approximately 74 large customers consuming more than 40 GWh of electricity a year became able to choose their electricity retailer. Retail contestability was extended to around 446 customers consuming more than 4 GWh per annum on 1 October 1998.

The NEM — including Queensland — commenced operation on 13 December 1998. At this time NEMMCO assumed the responsibility for managing the market and maintaining system security from the QSO.

On 16 February 1999 the Queensland Government announced a further restructure of the Queensland electricity industry to improve governance arrangements and ensure greater reliability of the State's electricity system.

The key changes were as follows:

- The six regional distribution corporations (South West Power, WBEC, MEB, CAPELEC, NORQEC and FNQEC) were amalgamated into a single distributor corporation called Ergon Energy Corporation Ltd, with Ergon Energy Pty Ltd as a separate retail subsidiary;
- The engineering consulting firm, AUSTA Energy, was wound up, with staff transferred to the three government owned generation corporations, the Department of Mines and Energy and other electricity corporations;
- An Electricity Monitoring Unit was established within the Department of Mines and Energy;
- Regional electricity councils were formed across the State to provide direct community input to their distribution corporations; and
- The existing 15 electricity corporation boards were replaced by nine boards.

On 1 July 1999 retail competition was further extended to some 6,705 customers consuming more than 200 MWh annually. The Government has recently announced that it will not extend retail competition to all business and domestic customers, but will review this decision in two to three years.<sup>5</sup>

<sup>5</sup> The Hon. Peter Beattie MP, Premier & Trade, Ministerial Media Statement, *Beattie Government Acts to Stop Electricity Price Rises*, 3 October 2001.

## 2.3 Current electricity industry structure in Queensland

The Queensland electricity industry now comprises:

- Three publicly owned generators (Stanwell, Tarong and CS Energy) and several privately owned generators which compete (some through Enertrade, a wholesale energy trader owned by the Government), together with interstate generators, to sell electricity into the pool;
- A transmission company, Powerlink Queensland, which owns and operates the high voltage electricity grid. In addition, Transenergie, a private company, owns and operates an entrepreneurial interconnector between Queensland and New South Wales.
- The National Electricity Market Management Company (NEMMCO) which manages the wholesale electricity market and is also responsible for power system operation and security in Queensland.
- Two government-owned distribution companies, Energex Ltd and Ergon Energy Corporation Ltd, which own and operate local distribution networks.<sup>6</sup>
- Two government-owned retail companies (legally separate subsidiaries of Energex and Ergon Energy<sup>7</sup>) which have regionally-based monopolies over franchise (non-contestable) customers within their regions, as well as competing for contestable customers.
- Country Energy (previously NorthPower) performs both a distribution and retail function in a small franchise area in Queensland.<sup>8</sup>
- A number of independent retailers who are able to compete to sell electricity to contestable customers.

An overview of the current electricity industry structure in Queensland is provided in Figure 1.

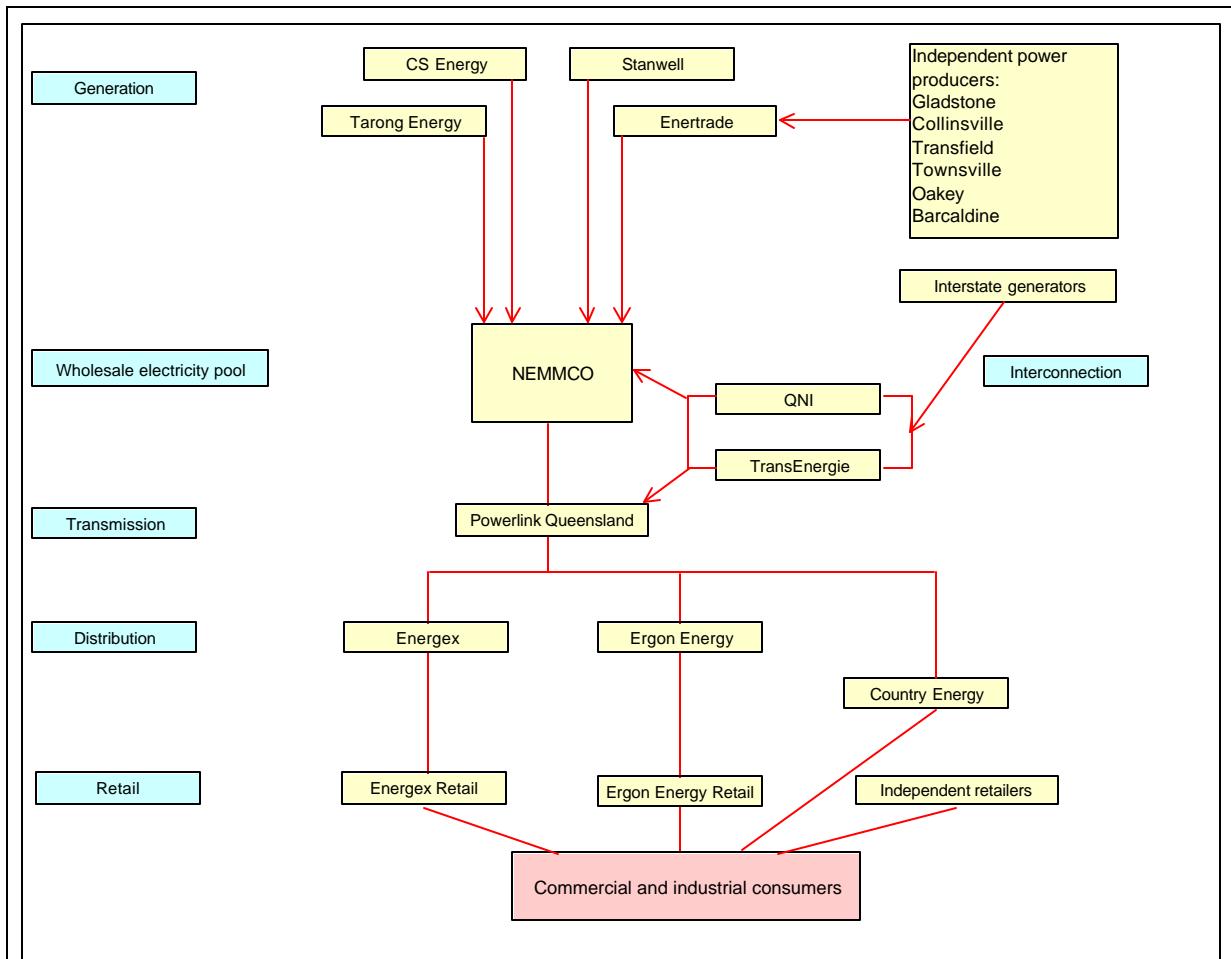
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<sup>6</sup> Throughout this report the distribution companies will be referred to as Energex and Ergon Energy respectively.

<sup>7</sup> Throughout this report the retail subsidiaries Energex Retail Pty Ltd and Ergon Energy Pty Ltd will be referred to as Energex Retail and Ergon Energy Retail respectively.

<sup>8</sup> Energex is responsible for distribution in most of South East Queensland, with a small part of this area being the responsibility of Country Energy, a distributor based in NSW and whose supply network extends over the Queensland border.

Figure 1: Structure of the Queensland electricity industry



### 2.3.1 Generation

Table 2 shows the main power stations connected to the Queensland Electricity Supply System that are currently operating, or are under construction. The combined capacity of the plants that are currently operating is 8,635MW. Plants under construction have total capacity of 2,135MW. In addition, cogeneration capacity in Queensland was approximately 456 MW at 30 June 2000, principally using bagasse. In addition to these plants, there is significant generating capacity not connected to the grid that supplies consumers in regional and remote areas.

Coal fired power stations account for most of the electricity supplied in Queensland, a result of access to low cost thermal coal resources. Additional power is generated using gas turbines, diesel engines, water turbines, wind turbines, and systems burning biomass (bagasse, woodchips etc). Solar systems using photo-voltaic cells are utilised mainly in small, remote power systems.



Table 2: Generation capacity — Queensland, October 2001

Owner	Generator	Size (MW)	Location	Type & Energy Source	Duty
Currently Operating					
AES Transpower	Mt. Stuart	288	North Qld.	Gas turbine / liquid petroleum	Peak
Comalco & NRG	Gladstone	1680	Central Qld.	Steam turbine / coal	Base
Comalco & NRG	Gladstone GT	14	Central Qld.	Gas turbine / liquid petroleum	Peak
CS Energy	Callide A	120	Central Qld.	Steam turbine / coal	Intermediate
CS Energy	Callide B	700	Central Qld.	Steam turbine / coal	Base
CS Energy	Middle Ridge	56	South Qld.	Gas turbine / liquid petroleum	Peak
CS Energy	Swanbank A	408	South East Qld	Steam turbine / coal	Intermediate
CS Energy	Swanbank B	600	South East Qld	Steam turbine / coal	Base & Intermediate
CS Energy	Swanbank C	26	South East Qld	Gas turbine / liquid petroleum	Peak
CS Energy	Swanbank D	37	South East Qld	Gas turbine / liquid petroleum	Peak
CS Energy / Intergen	Callide C (Unit 1)	420	Central Qld.	Steam turbine / coal	Base
CSR	Invicta	38	North Qld.	Steam turbine / biomass	Intermediate
Energy Equity	Barcardine	53	Central West Qld.	Combined cycle gas turbine / gas	Base & Intermediate
NRG	Collinsville	180	North Qld.	Steam turbine / coal	Intermediate
Oakey Power Ventures	Oakey	282	South Qld	Gas turbine / gas & liquid petroleum	Peak
Origin Energy	Roma	74	South West Qld.	Gas turbine / gas	Peak
Stanwell Corporation	Barron Gorge	60	Far North Qld.	Water turbine	Base & Intermediate
Stanwell Corporation	Kareeya	72	Far North Qld.	Water turbine	Base & Intermediate
Stanwell Corporation	Koombaloo	7	Far North Qld.	Water turbine	Base & Intermediate
Stanwell Corporation	Mackay	34	North Qld.	Gas turbine / liquid petroleum	Peak
Stanwell Corporation	Stanwell	1400	Central Qld.	Steam turbine / coal	Base
Stanwell Corporation	Windy Hill	12	Far North Qld	Wind turbine	Base
Tarong	Tarong	1400	South Qld.	Steam turbine / coal	Base
Tarong	Tarong GT	15	South Qld.	Gas turbine / liquid petroleum	Peak
Tarong	Wivenhoe	500	South Qld.	Water turbine / pumped storage	Peak
Transfield	Yabulu	159	North Qld.	Gas turbine / liquid petroleum	Peak
Total existing capacity		8635			
Under Construction					
CS Energy	Swanbank E	385	South East Qld.	Combined cycle gas turbine / gas	Intermediate
CS Energy / Intergen	Callide C (Unit 2)	420	Central Qld.	Steam turbine / coal	Base
Intergen	Millmerran	840	South Qld.	Steam turbine / coal	Base
Stanwell Corporation	Rocky Point	30	South East Qld.	Steam turbine / biomass	Base & Intermediate
Tarong	Tarong North	450	South Qld.	Steam turbine / coal	Base
Total under construction		2125			

Source: Office of Energy, Queensland Treasury

As illustrated in Table 3, coal is the dominant fuel source for electricity generated in Queensland, accounting for 76 per cent of total generating capacity. The dominance of coal fired power stations connected to the eastern grid is due to the abundant supplies of low cost coal in the coastal hinterland from South to North Queensland. Many of the power stations (for example Callide A, B & C, Collinsville, Tarong, Tarong North and Millmerran) are located adjacent to their coal suppliers to reduce coal transport costs.

Table 3: Principal generation plant installed — as at 30 June 2000

Type of Plant	Capacity (kw)	Capacity (%)
Hydro	139,000	1.7
Pump storage	500,000	6.0
Steam – coal	6,385,000	76.1
Gas turbine - gas	115,000	1.4
Gas turbine - oil products	910,000	10.8
<b>Total</b>	<b>8,395,000</b>	<b>100.0</b>

Source: Electricity Supply Association of Australia, 'Electricity Australia 2001'

The major demand for electricity comes from South East Queensland. Central Queensland also has large industrial loads. The existing Swanbank A, B, C & D, Tarong and Wivenhoe power stations are located close to the South East Queensland load centre, as are the future Tarong North, Swanbank E and Millmerran power stations. The major transmission interconnection between Queensland and New South Wales also connects to this load centre.

The power stations in the south of Queensland are normally unable to provide sufficient electricity to meet the demands of South East Queensland. Major transmission lines carry the additional electricity needed from the Callide A, B and C, Stanwell and Gladstone power stations, which are all located in Central Queensland. The aluminium smelter at Boyne Island consumes much of the output from the Gladstone power station.

The Collinsville power station and the small hydro power stations at Kareeya, Koombooloomba and Barron Gorge are not able to supply sufficient electricity to North and Far North Queensland. The Central Queensland power stations are therefore used to supplement any additional requirements.

Queensland is well supplied with quick start gas turbines. These are distributed throughout the network. Several of these are powered by natural gas. The remainder use liquid petroleum based fuels. Natural gas

is not extensively used to generate electricity. The Queensland Government is implementing a range of measures to increase the proportion of electricity generated from gas. The future Swanbank “E” power station will use coal seam methane.

Bagasse (the fibre residue from crushed sugar cane) is used as a fuel in the generation of electricity at many of the sugar mills in Northern Queensland, and in a smaller number of mills in South East Queensland. The sugar mills use most of this electricity in the production of sugar, but an increasing proportion of surplus power is sold to the network.

A large “wind farm”, utilising wind generators to produce electricity, is located at Windy Hill in Far North Queensland. Additional sites in Queensland are being investigated as to their suitability for future use for wind farm electricity production.

A large solar thermal collector is being constructed at the Stanwell power station in central Queensland. This is expected to improve the power station's thermal efficiency. Photo-voltaic cells are increasingly being used to supply power in remote areas.

Diesel engine powered generators are often used to increase the reliability of supply to rural communities connected to the East Coast grid by power lines which are prone to damage.

There is also a significant generation facility at the Mica Creek Power station near Mount Isa in the North West of Queensland of 325MW gas-fired capacity. The supply from this station is not connected to the East Coast grid, but does supply significant amounts of power to far west customers, including customers in Mount Isa, Cloncurry and several mines in this area. CS Energy owns this power station.

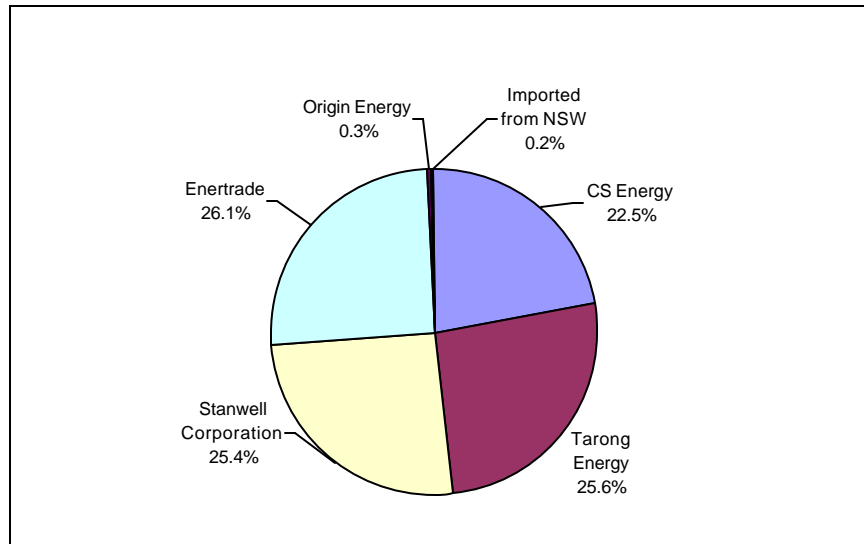
More than two hundred small power stations provide electricity to remote communities. These are not connected to the East Coast or the Mount Isa grids. Many of these are diesel-fired generators.

As shown in Figure 2, the generation sector is dominated by the three government-owned entities, Tarong Energy, Stanwell Corporation and CS Energy who together hold a market share of around 73 per cent. However, through Enertrade, private power plants now account for a significant part of generation capacity. Enertrade is the trading name of the Queensland Power Trading Corporation (QPTC), a wholesale energy trader owned by the Queensland Government.

Enertrade does not own any generation assets, rather it purchases electricity from privately owned power stations through Power Purchase Agreements (PPAs), that were in existence at the commencement of the NEM, and trades this into the pool. Enertrade manages a range of PPAs that allow it to trade the output from contracted generation stations into the electricity market. Current agreements cover the power station outputs

from Mt Stuart, Barcaldine, Collinsville, Gladstone, Oakey and Townsville (Yabulu).

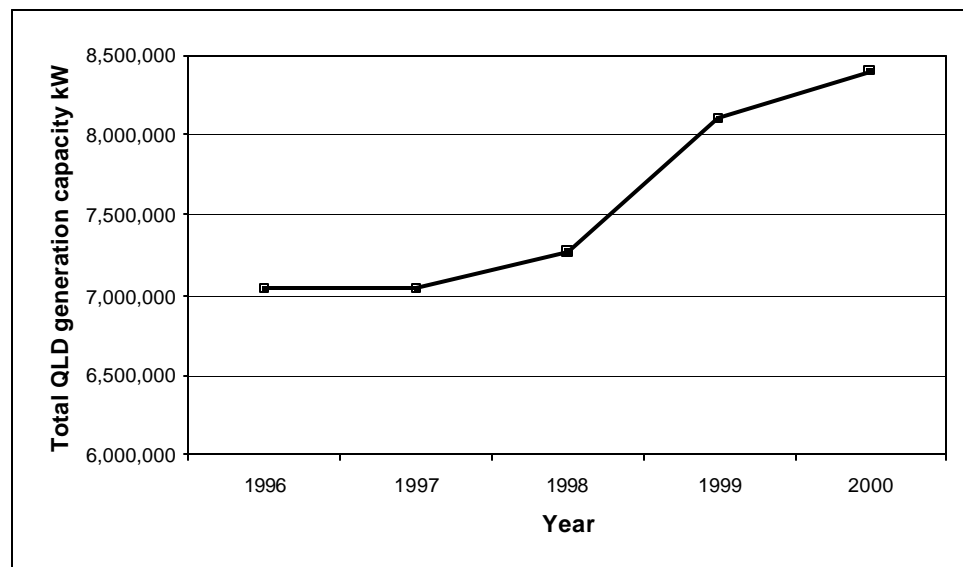
Figure 2: Market share 2000 — generation



Source: Electricity Supply Association of Australia, 'Electricity Australia 2001'

There has been significant expansion in generation capacity in Queensland in recent years. Over the five years to 2000, total installed generating capacity rose by almost 20 per cent.

Figure 3: Generation Capacity 1996-2000 — kilowatt (kW)



Source: Electricity Supply Association of Australia, 'Electricity Australia 2001'

This growth in generation capacity has changed the supply-demand balance in Queensland from one of low reserve to one of excess capacity, where reserve is now seen as more than adequate. Queensland is now a net exporter of electricity in the NEM. In 1999-2000, 370 GWh of electricity was exported from Queensland and this is expected to grow now that the QNI has opened and when a number of low-cost coal fired generators, such as Callide C, Tarong North and Millmerran, begin generation.

### **2.3.2 Transmission**

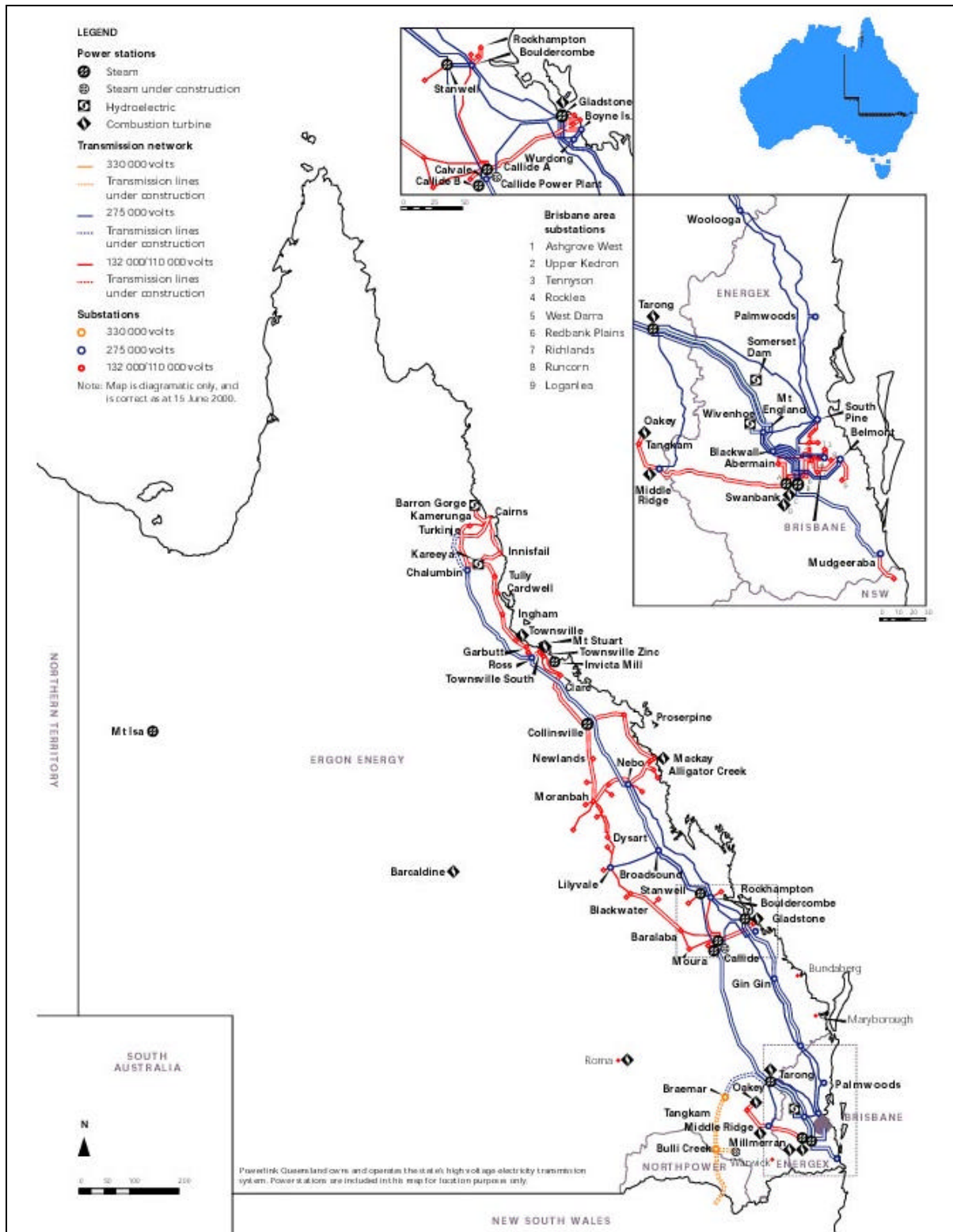
Powerlink Queensland, a Queensland Government Owned Corporation, manages transmission of electricity in Queensland. Powerlink is responsible for planning, design, construction and maintenance of the transmission grid, and for providing a state-wide system control function to ensure efficient and secure transmission services.

Queensland's main transmission system extends for more than 1,700 km from north of Cairns to the New South Wales border. The system includes more than 4,500 km of very high voltage (275 kV) transmission lines; almost 8,200 km of high voltage (132 kV and 110 kV) lines; and more than 18,000 km of medium voltage (66 kV and 33 kV) line.

A characteristic of this long and narrow transmission system is the clustering of the major centres of load and generation into 'zones'. For design and planning purposes, Powerlink has identified 10 of these zones. Transmission lines connect these zones and power stations are located in many of these zones. A zone that does not have a significant generation capacity is dependent on the capacity of the transmission lines feeding that zone.

The capacity of these transmission lines is therefore crucial in being able to meet the zone's electricity demands, particularly at peak times. Most electricity in Queensland is supplied to the Queensland transmission system from direct connections to the high voltage terminals of the power stations' generator transformers.

Figure 4: Queensland transmission system



Source: Powerlink.

### 2.3.3 Interconnection

Queensland is connected to the NEM through an interconnection with New South Wales. This allows electricity to flow in either direction, depending upon supply and demand conditions, enabling Queensland generators to compete with those in other States. Electricity flows between NSW and Queensland via the large capacity Queensland New South Wales Interconnector (QNI) and the smaller Directlink interconnector.

The first interconnection completed was the privately-owned DirectLink, brought into operation in 2000. The Directlink interconnector is an underground, high voltage direct current (HVDC) power line running the 65 km between Terranora (which is at the southern end of the Queensland network even though it is in NSW) and Mullumbimby (which is at the northern end of the NSW network). This interconnector has a capacity of approximately 180 MW in each direction. Directlink was developed and is still owned by Transenergie Australia, a subsidiary of Hydro-Quebec, one of the world's largest energy companies. It was built and funded as an entrepreneurial interconnect under the rules of the National Electricity Code.

The QNI interconnector is a 330 kV transmission line running between Armidale in northern NSW and the Braemar switchyard in southern Queensland. The QNI interconnector, which came into service during 2001, will have 1,000MW capacity from north to south and a 500MW capacity from south to north (limited by the capacity of the NSW transmission grid at Armidale). This was developed as a "regulated" interconnector jointly by Powerlink and Transgrid (the transmission system operator in NSW).

The effective interconnection capacity between NSW and Queensland will change during the next two years with the commissioning of the Millmerran power station, which is linked directly into the network through QNI and will limit the south to north flow

### 2.3.4 Distribution

In Queensland, Energex Ltd (Energex), Ergon Energy Corporation Ltd (Ergon Energy) and Country Energy are the electricity distributors. Energex is responsible for distribution in most of South East Queensland, with a small part of this area being the responsibility of Country Energy, a distributor based in NSW and whose supply network extends over the Queensland border. Ergon Energy is responsible for distribution in the remainder of Queensland.

In most areas, distribution is by the use of overhead cables. Underground cables are increasingly being used in new housing estates and in areas subject to damage by cyclones and storms. In suburban areas generally, the voltages used are 11 kV (for power distribution over a distance), and

415/240 volt for consumer supply. For longer distances and higher loads, the voltages used are 33 kV and 66 kV. In some areas the distributor has to construct 132 kV and 110 kV systems because of the distance from the transmission take off point to the distributor's load centre.

### **Energex**

Energex is a government-owned corporation operating under the provisions of the *Government Owned Corporations Act 1993* (GOC Act). The corporation pays a dividend to its share holding Ministers on behalf of the Queensland Government.

Energex owns and operates a \$AU2.7 billion electricity distribution network that spans 24,830 square kilometres of Queensland. Energex's metropolitan distribution network supplies more than one million customers in Brisbane, the Gold Coast, and the Sunshine Coast and surrounds.

An Energex subsidiary, Allgas Energy Ltd, owns and operates a gas distribution system in south-east Queensland, the Darling Downs and northern New South Wales, covering a span of approximately 1,567 square kilometres.

### **Ergon Energy**

Ergon Energy is also a government-owned corporation operating under the provisions of the *Government Owned Corporations Act 1993* (GOC Act). The corporation pays a dividend to its share holding Ministers on behalf of the Queensland Government

Ergon Energy's network is the largest electricity network in Australia, supplying electricity to 97 per cent of the land area of Queensland or 1.7 million square kilometres. Its infrastructure comprises more than 135,000 kilometres of electricity network, 800,000 power poles and 70,000 substations.

With more than 560,000 customers and assets of nearly \$2.8 billion, Ergon Energy supplies power to the most remote corners of the state from Birdsville in the far South West to Thursday Island in the Torres Strait.

### **Country Energy**

Country Energy is a NSW based and government-owned electricity supplier which provides electricity to customers in an area in Queensland encompassing Goondiwindi, Texas, Inglewood and Wallangarra.

## **2.3.5 Retail**

The electricity retail function involves the sale of delivered electricity to final customers and provision of associated customer services. This is distinct from the physical delivery involved in the distribution function.



Retailers purchase electricity from generators and, in most cases, also pay for the use of the transmission and distribution networks to deliver it as a bundled product to where it is consumed. In a competitive market, the retail prices to final customers will reflect these components. Retailers manage the risk of the wholesale spot market on customers' behalf.

There is a significant number of public and private entities engaged in electricity retailing in Queensland. Both Energex and Ergon Energy have fully-owned but legally separate retail subsidiaries (referred to in this report as Energex Retail and Ergon Energy Retail respectively). These companies provide retail service exclusively to those so-called "non-contestable" customers within their regions who are not eligible to choose among competing retailers (those who consume less than 200 MWh per annum). This includes all domestic customers and smaller commercial and industrial customers. Country Energy is also a retailer to non-contestable customers in its franchise area in Queensland.

In addition, Energex Retail and Ergon Energy Retail compete to sell electricity to customers who are contestable (those customer who consume more than 200 MWh per annum). Other companies licensed to compete in the contestable part of Queensland electricity retail market as at 14 December 2001 included:

- ACTEW Energy
- Advance Energy
- AGL
- Anscott
- Australian Energy Services
- Citipower
- Country Energy
- CS Energy
- EnergyAustralia
- Enron Australia
- Ferrier Hodgson Electricity
- Integral Energy
- Origin Energy
- Powercor Australia
- Pulse Energy
- Stanwell Corporation
- Tarong Energy Corporation
- TXU Electricity; and
- Yallourn Energy (AusPower).

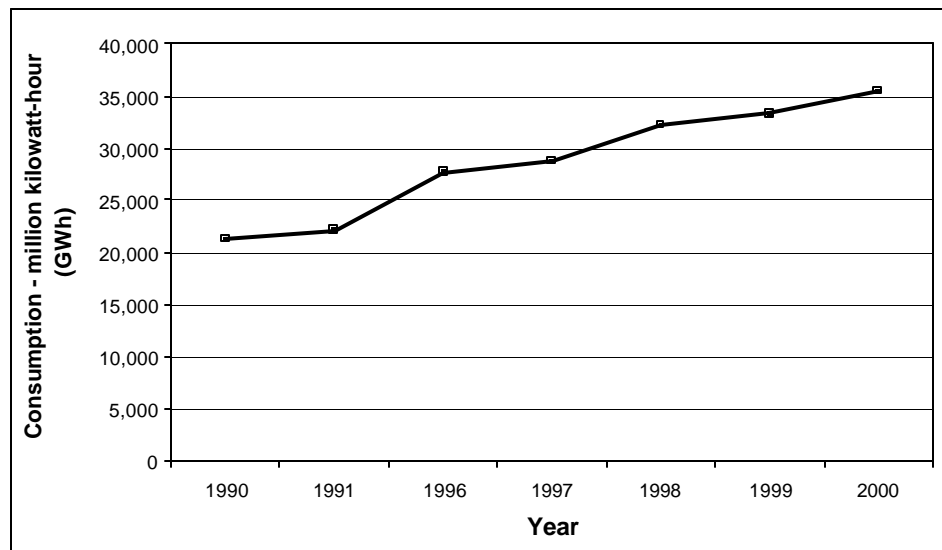
Under the Queensland Government’s phased timetable for the introduction of retail competition, so far approximately 7,127 larger customers (those consuming more than 200 MWh p.a.) have become eligible to choose their retailer. Together, these customers account for just over 50 per cent of all electricity consumed in Queensland.

## 2.4 Electricity demand

An ABARE study in 2000 found that electricity consumption in Queensland grew at an average rate of 6.8 per cent in the 25 years to 1997-98, the highest rate in Australia. In 1999-2000, electricity consumption in Queensland increased by 6.7 per cent, double the combined growth rate of all other states.<sup>9</sup>

Total electricity consumption in Queensland in 2000 was 35,505 GWh.

Figure 5: Total electricity consumption in Queensland 1990-2000 (GWh)

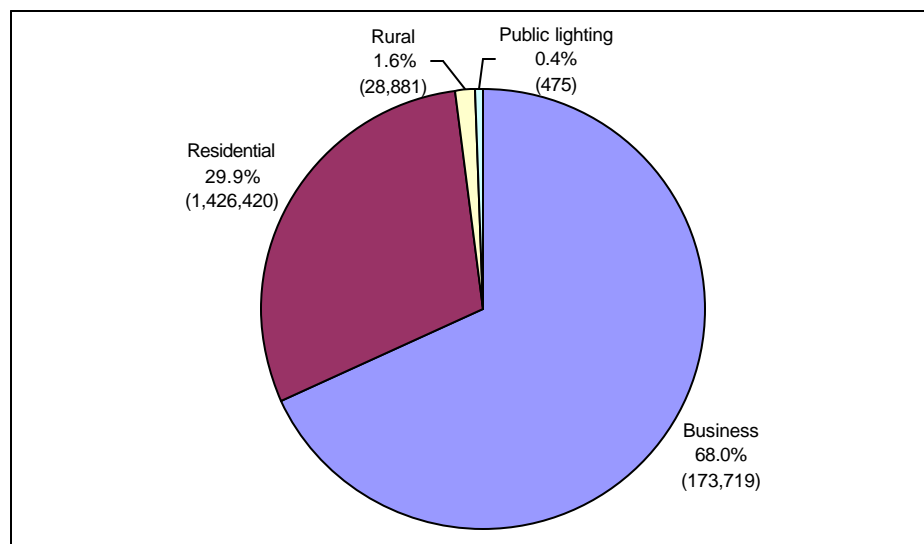


Source: Electricity Supply Association of Australia, ‘Electricity Australia 2001’

As illustrated in Figure 6, around two-thirds of electricity is consumed by business customers, with a further 30 per cent consumed by residential consumers (percentages refer to the percentage of consumption, numbers in brackets refer to the number of customers in each classification).

<sup>9</sup> Electricity Australia 2001, Electricity Supply Association of Australia, p.21.

Figure 6: Electricity consumption by classification of customers - at 30 June 2000



Source: Electricity Supply Association of Australia, 'Electricity Australia 2001'

The ABARE report forecasts that electricity consumption in Queensland will grow at an average of around 2.5 per cent over the next ten to fifteen years.

## 2.5 Electricity prices

Since the advent of the NEM and the disaggregation of the industry into its various components, the retail price of electricity now effectively comprises a number of elements. These components are: the price of wholesale electricity in the NEM; the price of transporting electricity through the transmission and distribution networks; and, a margin for the retail services associated with selling electricity to end customers. While the prices of accessing the monopoly transmission and distribution networks are regulated, the wholesale and retail margins (for contestable customers) are now market determined.

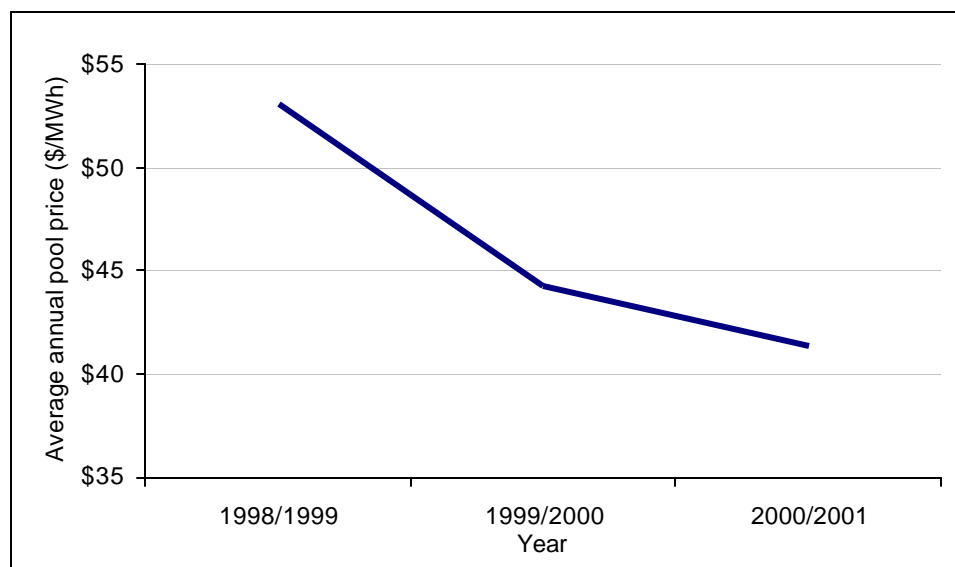
The wholesale price of electricity is determined through the NEM, which is essentially a wholesale market for the supply and purchase of electricity by generators and retailers. Under the centrally coordinated despatch arrangements operated by NEMMCO, all electricity output from generators is pooled and then scheduled to meet demand. Generators compete by providing despatch offers (prices for different levels of generation) to NEMMCO. Market customers (i.e. retailers) may also submit demand bids.

The spot price is the clearing price that matches supply with demand. NEMMCO calculates the spot price using the price offers and bids for each half-hour period during the trading day. This is the price paid to

generators for the electricity they sell to the pool, and received from retailers for the electricity they consume. Spot prices fluctuate, rising in periods of peak demand. Generators and retailers also trade in financial instruments such as hedge contracts outside the pool to hedge against fluctuations in spot prices.

Wholesale electricity prices in Queensland have fallen since the introduction of the NEM (see Figure 7) and these reductions in wholesale electricity prices appear to have translated into lower retail prices for end customers. For example, the uniform retail electricity tariff in Queensland has fallen in real terms since 1990. It has also been reported that large industrial customers have received price reductions of up to 40 per cent since they became able to choose their electricity retailer.

Figure 7: The wholesale annual average price of electricity in Queensland since the commencement of the NEM



## 2.6 Overview of regulatory framework

### 2.6.1 Introduction

The reforms to the electricity industry have involved the disaggregation of previously vertically integrated government owned electricity utilities into a number of separate entities and the separation of competitive from monopoly functions. This has been accompanied by the development of new regulatory frameworks to govern the activities of the many new participants in the industry, particularly those in natural monopoly segments of the industry.

At the national level, the operation of the NEM is governed by the National Electricity Code and given effect by enabling legislation in each state. In Queensland, the relevant legislation is the *Electricity – National Scheme (Queensland) Act 1997*. The National Electricity Code has been

authorised by the Australian Competition and Consumer Commission (ACCC) and is not included within the terms of reference for this Public Benefits Test. The Code specifies the market rules, and the rights and responsibilities of market participants, the market manager NEMMCO, and the National Electricity Code Administrator (NECA).

Within this overarching national architecture, the regulatory framework for the Queensland electricity industry is further defined through relevant legislation and subsidiary instruments enforced by various regulatory authorities.

The prime legislative instruments (and focus of this Public Benefit Test) are the Queensland *Electricity Act 1994* and the *Electricity Regulation 1994*. Other relevant legislation includes the *Queensland Competition Authority Act 1997* and the *Environmental Protection Act 1994*. The latter two Acts are outside of the scope of this review. The following discussion outlines the key aspects of the overall regulatory framework and identifies the roles of the various institutions. A more detailed examination of the specific objectives and provisions of the *Electricity Act 1994* and the *Electricity Regulation 1994* and their effects on competition is undertaken in chapter 4.

## 2.6.2 Economic regulation

Economic regulation aims to provide incentives to suppliers to deliver services at the level, quality and reliability customers need, at lowest long-term cost, in circumstances where competition cannot be relied upon to do so. This typically entails ensuring competition operates more effectively and/or directly imposing controls on prices and service quality so as to simulate competitive market outcomes.

Direct regulation of prices of certain services that are not provided in a competitive market is undertaken by several bodies. Under the National Electricity Code, regulation of monopoly transmission prices is to be undertaken by the ACCC. The ACCC has assumed this role in respect of Powerlink Queensland from January 2002. Until that date, the methodology, pricing principles and revenue caps approved in June 2000 by the former Minister for Mines and Energy continued to apply.

Regulation of prices for the monopoly distribution networks in Queensland is (since December 2000) the responsibility of the Queensland Competition Authority (QCA) and the Treasurer. QCA has responsibilities for networks that are subject to the National Electricity Code (i.e. networks that are interconnected with the main grid). The Mount Isa-Cloncurry distribution network is an isolated network (off grid) and is not subject to the Code. The Treasurer may directly regulate pricing and aspects of services provided by the Mount Isa-Cloncurry distribution network.

Under the Act the Treasurer regulates retail prices for franchise (non-contestable) customers. This includes customers who are not eligible to become contestable and those who are eligible but have chosen not to become contestable. The current regulated prices which took effect from 1 July 2001 are uniform for all non-contestable customers of Energex Retail and Ergon Energy Retail regardless of geographical location and hence cost of supply.

Energex Retail and Ergon Energy Retail receive a Community Service Obligation (CSO) payment from the Government for the difference between the revenue received from non-contestable customers and the cost of supply. Similarly, a rebate is applied to the bills of Country Energy's non-contestable customers where its price is higher than the Queensland uniform tariff and a CSO paid to Country Energy. Total CSO payments to support the uniform tariff for non-contestable customers exceeded \$200 million per annum for the past three years.

The QCA has a role in overseeing market conduct and ensuring that the distribution businesses are not able to use their distribution or retail franchise monopolies to distort competition in the retail market. The QCA issues and enforces compliance with various ring-fencing rules.

### **2.6.3 Service standards and customer protection**

The Act provides that service standards may be set by regulation.

Electricity distributors and retailers are also required to prepare standard customer connection and sale contracts that contain the terms on which they provide their services. These must be approved by the Regulator (the Under Treasurer) under the Act. The Office of Energy is currently developing comprehensive standard customer sale and connection contracts, in consultation with the retailers, distributors, consumer representatives and other stakeholders. It is also finalising a number of other regulatory matters including the retailer of last resort scheme.

The QCA has a role in monitoring — but not setting — service quality standards of the electricity businesses.

The Energy Consumer Protection Office within Queensland Treasury undertakes an independent umpire role and assists customers resolve disputes with energy suppliers.

### **2.6.4 Licensing arrangements**

The Act establishes a system of licensing of entities to undertake activities in the Queensland electricity industry. Persons who carry out the functions of electricity generation, electricity transmission, electricity distribution and electricity retail are required to hold an appropriate authority or special approval issued by the Regulator (the Under

Treasurer, Queensland Treasury). The licensing arrangements apply to both public and private entities.

Broadly speaking, the licensing arrangements in the Act and Regulation set out what an authority or special approval entitles its holder to do, the conditions an authority/special approval holder must comply with, what the Regulator must take into account in deciding whether to issue an authority/special approval, and how authorities/special approvals may be amended. Responsibility for monitoring compliance with the conditions of authorities and special approvals, and taking disciplinary action where necessary, rests with the Regulator.

An important feature of the authorisation arrangements is that in respect of retail licences, an interstate licence will be recognised under the Act and there will be no requirement for applicants for retail licences to demonstrate suitability where they have a current interstate retail licence. This system of authorities and special approvals is examined in detail in Chapter 4. Similar licensing regimes operate in other States (see Attachment A2).

There are a number of prohibitions on the holding of multiple authorities designed to prevent market power in one segment of the industry being used to distort competition in another. For example, the holder of a transmission authority cannot also hold a generation authority; and the holder of a distribution authority cannot also hold a retail authority.

### 2.6.5 Retail contestability timetable

Another key part of the regulatory framework is the Government-controlled program for opening the retail market to competition. The Act and Regulation specify those customers eligible for competition.

The schedule to date is as follows.

Date for Contestability <sup>1</sup>	Site Thresholds	Typical customer/bill	Estimated Number of Customers	Percentage of Total Energy (%) 1997/98
29 March 1998	>40 GWh	Large users with bills > \$2.3m p.a.	74	20.1
1 October 1998	>4 GWh	Large factories, office buildings, shopping centres with bills >\$0.25m p.a.	446	17.2
1 July 1999	>200MWh	Small to medium retail & commercial outlets with bills > \$20,000 p.a.	6705	18.5

<sup>1</sup>Represents dates for eligibility rather than mandated contestability.

As noted earlier, the Queensland Government has recently announced that it will not extend retail competition to all business and domestic customers, but will review this decision in two to three years. It has also

stated that it will seek further analysis of the costs and benefits of extending retail competition to small business customers (consumption between 100 and 200 MWh per annum).<sup>10</sup>

### 2.6.6 Safety regulation

The Act and Regulation contain a number of provisions relating to electrical safety. Electrical safety matters, including the Electrical Workers and Contractors Licensing Board and registration of electrical articles and appliances are administered by the Electrical Safety Office (ESO) within the Department of Industrial Relations. The Department is currently reviewing all electrical safety provisions contained in the Act and Regulation, and new stand-alone electricity safety legislation is being developed. This Public Benefit Test therefore excludes provisions of the legislation relating to safety.

### 2.6.7 Environmental regulation

The Queensland electricity industry is subject to environmental legislation at both the Commonwealth and State level. The prime authority in Queensland responsible for environmental regulation is the Environmental Protection Agency.

Two specific environmental aspects of the Government's *Queensland Energy Policy – A Cleaner Energy Strategy* which are formally linked to the regulatory framework are:

- no generating licences for new coal fired power stations will be issued by the Government “unless there is a clear and demonstrated need”; and
- a requirement for retailers to source 15 per cent<sup>11</sup> of electricity sold in Queensland from gas-fired or renewable energy from 1 January 2005 will be imposed as a licence condition.

### 2.6.8 Rebates and concessions

The Queensland Government funds a number of schemes including rebates to eligible pensioners and seniors, concessions for seriously ill persons who use an oxygen concentrator or kidney dialysis machine, and drought relief from electricity charges for farmers in a drought declared area. The Department of Families administers the concessions for seriously ill persons. Pensioner and seniors' rebates are administered by the electricity entities on behalf of Department of Families. Drought relief from electricity charges are part of the current tariff arrangement.

<sup>10</sup> The Hon. Peter Beattie MP, Premier & Trade, Ministerial Media Statement, *Beattie Government Acts to Stop Electricity Price Rises*, 3 October 2001.

<sup>11</sup> This comprises the 2 per cent requirement under the Commonwealth Government's National Renewable Energy Target and the 13 per cent requirement under the Queensland Government policy.



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## 3. Objectives of the Electricity Act and Regulation

### 3.1 Introduction

This first step of an NCP review involves identifying the objectives underlying the various regulations applying to the industry. The purpose is to identify accurately the objectives against which the performance of these regulations can be assessed. The objectives of the Act should address problems that arise from the unregulated supply of electricity. If there were no problems (socially undesirable outcomes) arising from the activities of electricity entities or individuals, there would be no justification for Governments to restrict these activities.

It is also important to identify the problems arising from the unregulated supply of electricity because this will identify any gaps in the legislation or any important issues that are outside the scope of the Act but not adequately addressed by other legislation.

### 3.2 Market failure and the need for regulation

Often the reason regulation is introduced in a market is that the operation of that market fails to produce outcomes desired by the general community (what economists refer to as ‘socially optimal outcomes’).

There are several reasons why, in particular cases, markets may fail to achieve socially desirable outcomes. Markets can fail because of the existence of externalities, public goods, natural monopolies and/or information asymmetries. These four issues are defined in Box 1. Intervention may also seek to achieve social, environmental and other objectives that the Government wishes to pursue but that the market, left alone, is unlikely to achieve. There is usually a trade-off between the achievement of economic efficiency and some of these objectives.

The presence of market failure is the main economic reason for government intervention in a market economy. This Report identifies the market failures that justify the form of market interventions associated with electricity legislation. In doing so, the Report also considers the circumstances under which that intervention yields net benefits to the community.

## Box 1: Major causes of market failure

**Natural monopoly:** A situation where it is cheaper for a single firm to supply the entire market demand. Competition will not lead to efficient outcomes in this circumstance. Natural monopoly can be a source of market failure.

**Information asymmetry:** Occurs where buyers and sellers do not have similar information as to the exact nature of the good or service being exchanged. In such cases, the party with the superior information may exploit their advantageous position to the detriment of social welfare. In certain circumstances, information asymmetries can cause markets to produce inefficient outcomes.

**Externality:** Where private decision-makers impose costs or benefits on others in the community and no compensation or payment is made. Externalities may cause markets to fail to produce socially optimal outcomes. An example of a positive externality might be research and development funded by the industry that provides positive benefits to other users who did not fund the research. Pollution arising as a by-product of generating electricity is an example of a negative externality.

**Public goods:** Public goods are those goods or services that have two special characteristics that mean they are unlikely to be provided in markets. First, they do not diminish as more people use the good (non-rivalry in consumption) and second, it is impossible or infeasible to exclude non-payers from using the good. Such characteristics mean that market provision of the good is not possible. Public goods are also a source of market failure.

A number of market failures may be associated with an unregulated electricity industry. These include:

- Transmission and distribution networks are characterised by natural monopoly because economies of scale mean it would be uneconomic to duplicate these networks. Regulation may be needed to ensure prices/service standards are not at monopoly levels.
- Network externalities — the process of getting electricity from where it is generated to where it is consumed requires transporting it along interconnected networks. Inevitably, the actions of one participant connected to the network can have adverse effects on others in the network (e.g. inappropriate connection can cause quality problems or even failure of the entire network).
- Other externalities — the production, transport and consumption of electricity can have adverse impacts on consumers and on others (e.g. environmental impacts of generation and safety issues arising with the use of electricity).
- Information asymmetry — consumers may not be well-informed as to nature of the product, connection equipment and electrical appliances and the availability of choices, particularly in the early stages of retail competition.

The likely existence of these market failures suggests the need for targeted government regulation. However, regulation should only be introduced if it can be demonstrated that this would constitute an improvement, from a community benefit perspective, over the unregulated market outcomes.

### 3.3 Stated objectives

#### 3.3.1 Electricity Act 1994

The objects specified in Part 2 of the Act are to:

- set a framework for all electricity industry participants that promotes efficient, economical and environmentally sound electricity supply and use;
- regulate the electricity industry and electricity use;
- promote electricity safety;<sup>12</sup> and
- establish a competitive electricity market in line with the national electricity industry reform process.

Further elaboration of the objectives of the Act may be found in the Explanatory Notes accompanying the original Act in 1994 and several subsequent amendments to the Act. The former reinforced that the prime objective of the Act is:

“to set the framework for all participants (both private sector as well as Government-owned entities) within the electricity industry so as to encourage the efficient, economical and environmentally sound provision of electricity.”

It is clear from the original Explanatory Notes that the focus was very much on preparing the basic framework to accommodate the (then formative) national electricity industry reform process. At this stage, the Act provided an initial framework for the purchase and sale of electricity through a system of generation, transmission and supply authorities.

The discussion of this framework of authorities in the Explanatory Notes reveals some further implicit underlying objectives including:

- To ensure that a person who generates or transmits electricity is “a suitable person”.
- A desire that all customers receive an electricity supply where it is technically and economically practicable, as reflected in the imposition of an obligation to supply “as the supply of electricity is considered an essential service in modern society”.
- To “ensure that prices are fair and reasonable,” the Treasurer has an obligation to set prices for non-contestable customers.

The third point above incorporates what was initially contained in the 1994 Act. This objective was removed by subsequent amendments, so that the focus now is supply on fair and reasonable terms rather than prices.

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<sup>12</sup> The promotion of electrical safety is shortly to be removed from the objects of the Act, with the development of a separate Electrical Safety Act.

Safety in relation to the use of electricity was also a prominent objective, since “electricity is a dangerous commodity.” Moreover, one of the stated purposes of the authority system was to ensure that the technical standards are assured. However, as noted above, the safety objective is to be removed from the Act and the safety provisions are to be included in other legislation.

The objective relating to environmentally sound provision of electricity was also explicitly addressed in the Explanatory Notes. This “recognised that participants in the electricity industry have an obligation to consider the effect on the environment of their activities,” and required the Regulator to consider relevant Government environmental policies when considering an application for an authority. It was also stated that “it is in the interests of the State and consumers if the growth in demand for electricity can be reduced.”

The Explanatory Notes for a series of amendments to the Act in 1997 shed some additional light on its objectives.

The first of these amendments had the prime objective of amending the Act to facilitate the restructuring of the electricity supply industry, in accordance with the decisions following from the 1996 review (see section 2.2 above). In turn, it was stated that “the objective of the reforms is lower electricity prices that increase Queensland’s competitiveness and attractiveness as a site for industry development and which provide opportunities for employment growth in the State.”

A second set of amendments in 1997 was mainly to enable the establishment of an interim competitive wholesale electricity market in Queensland. This was a precursor to full participation in the NEM in anticipation of interconnection with New South Wales. Again, reference was made to the broad industry reform objective quoted in the preceding paragraph.

The objectives of a third set of amendments in 1997 were to:

- Establish regulatory arrangements appropriate for a competitive electricity market.
- Make the Act consistent with the application of the National Electricity Law.
- Make the Act consistent with principles of NCP.

Since they were focused on establishing regulatory arrangements, the Explanatory Notes for these amendments are particularly relevant in interpreting the objectives of the existing Act. The Notes state that:

“regulation of the electricity market is required to protect customers and to promote effective competition between the participants in the market.”

The main issues for regulation of the industry are identified as:

- Pricing;
- Authorisation or licensing arrangements;
- Service quality;
- Consumer protection; and
- Control of market power.

The Explanatory Notes provide significant comment on the underlying rationale or objectives for most of these areas of regulation.<sup>13</sup> The rationale for regulation of network pricing is given as:

“Transmission and distribution are natural monopolies. Consequently, to ensure the effective implementation of the competitive market it will be necessary to regulate the pricing of transmission and distribution services.”

In the case of retail pricing, regulation was seen as necessary because of the staged approach to introducing retail competition:

“While the largest customers will become contestable from January 1998, competition for the smaller customers will be introduced at a later date. Accordingly, the incumbent Government owned retailers will continue to have a non-contestable customer base after January 1998.

“Regulation must therefore ensure that non-contestable customers are not charged excessive prices by retail franchise holders.”

In the case of service quality, the rationale for regulation is expressed as:

“There is a need to ensure that the introduction of competition does not lead to a lowering of service standards (for example, without regulation, retailers with non-contestable customers could reduce the quality of service to those customers to focus on their contestable customers). To ensure that this does not happen, service standards must be carefully defined and administered as part of the regulatory framework.”

The 1997 Bill also introduced a number of provisions giving the QCA power to make, administer and amend various market conduct rules to control possible market power possessed by electricity entities. Several potential situations where such market power could be exercised were identified:

- Incumbent retailers with a large number of non-contestable customers may seek to pass excessive costs onto their non-contestable customers so they can offer better deals to contestable

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<sup>13</sup> Explicit objectives or rationale are not provided for the authorisation and customer protection arrangements in the Explanatory Notes.

customers. This would give the incumbent retailers a significant advantage over potential new retail entrants in the competition for contestable customers.

- The common ownership of distribution and retail entities could enable the distributors to provide the retailers they own with substantial advantages over the retailers' new competitors; and
- Similar problems may arise where there are links between generators or retailers where the generators or (more pertinently) retailers have market power.

Regulatory controls were therefore seen as necessary because:

“Unless appropriate regulation is implemented, the exercise of market power is likely to damage the effectiveness of the reforms and prevent Queensland customers benefiting by lower prices.”

### 3.3.2 Electricity Regulation 1994

Section 3 of the Regulation sets out its main purposes as follows:

- To ensure the electrical safety of electrical workers, other workers, customers and the general public.
- To ensure safe, secure, efficient and economic supply of electricity to customers on fair and reasonable terms.
- To prevent a person's cathodic protection system from damaging or interfering with anyone else's property.
- To prescribe certain conditions of employment for employees in the Government owned electricity industry.

Electrical safety issues (including cathodic protection systems) are soon to be taken out of the Act and the Regulation. There would need to be a consequent amendment to the purposes of the Regulation.

## 3.4 Assessment of objectives

In assessing the objectives of the Act and the Regulation, the following criteria are relevant:

- Technical, market and policy changes making stated objectives more or less relevant or giving rise to new objectives.
- Whether there is a hierarchy within the objectives or conflict between them.
- Identification of inappropriate objectives.
- Failure to give effect to appropriate objectives.
- Whether there are objectives more appropriately addressed elsewhere.

- Whether objectives of the Act or Regulation conflict with other Government objectives.

ACIL's overall approach, consistent with the principles of competition policy and the role of the legislation in establishing a competitive electricity industry, is to assess the objectives in terms of efficient market outcomes and correction of market failure.

Taking into account the criteria and discussion above, a number of comments can be made about the objectives of the Act and Regulation. It is also instructive to compare the stated objectives of the Queensland Act with those in corresponding legislation in other NEM jurisdictions (see Box 2).

In broad terms, the objectives of the Act and Regulation can be categorised into those relating to economic efficiency, safety, environmentally sound energy provision, secure supply and "fair and reasonable" terms.

Box 2: Objectives in other NEM states electricity legislation

In Victoria and the ACT, the Acts simply state that their purpose is to regulate the supply of electricity or the electricity supply industry. In contrast, the other NEM jurisdictions have more specific objects:

The South Australian *Electricity Act 1996* states that its objects are:

- to promote efficiency and competition in the electricity supply industry; and
- to promote the establishment and maintenance of a safe and reliable system of electricity generation, transmission, distribution and supply; and
- to establish and enforce proper standards of safety, reliability and quality in the electricity supply industry; and
- to establish and enforce proper safety and technical standards for electrical installations; and
- to protect the interests of consumers of electricity.

The NSW *Electricity Supply Act 1995* has the following objects:

- to establish a competitive retail market in electricity so as to promote efficient and environmentally responsible production and use of electricity and to deliver a safe and reliable supply of electricity; and
- to confer on network operators such powers as are necessary to enable them to construct, operate, repair and maintain their electricity works; and
- to regulate network operations and electricity supply in the retail market in a manner that ensures open access to electricity distribution systems, promotes customer choice and creates customer rights in relation to electricity connections and electricity supply.

The Long Title of the Tasmanian *Electricity Supply Act 1995* states that it is:

- to promote efficiency and competition in the electricity supply industry;
- to provide for a safe and efficient system of electricity generation, transmission, distribution and supply;
- to provide for the safety of electrical installations, equipment and appliances;
- to enforce proper standards in the performance of electrical work;
- to protect the interests of consumers of electricity; and
- for related purposes.

The first objective in the Act is to "set a framework for all electricity participants that promotes efficient, economical and environmentally sound electricity supply and use". It is clear from the discussion of the

Explanatory Notes in section 3.3.1 above that this overarching objective recognises the need to address several potential market failures, particularly the existence of natural monopoly.

The Regulation contains a similar but not identical overarching objective. In addition to being “efficient” and “economic” the Regulation specifies that the supply of electricity also be “safe” and “secure”, and be on “fair and reasonable” terms to customers. This raises the issue of whether supply security or reliability should be included as explicit objectives in the Act, as is the case in some other States (see Box 2).

The second objective in the Act — to regulate the electricity industry and electricity use — is also potentially directed at addressing market failures, but does not really define the underlying objective that the regulation is seeking to achieve. In several other States, notably South Australia and Tasmania, explicit reference is made to the objective of protecting the interests of consumers. Given that this is clearly a key objective of the Act from examining its development and current provisions, this could be included as a specific objective in the Act.

The third objective in the Act, and most of the objectives in the Regulation, relate to ensuring safety. While there is a sound market failure justification for regulating safety, these objectives have not been formally assessed because they fall outside the terms of reference for this review.

The fourth objective in the Act is to establish a competitive electricity market in line with the national electricity industry reform process. The Regulation has an objective in relation to conditions of employment for employees of government owned electricity entities.

These objectives clearly relate to the structural reform process, as opposed to the ongoing regulation of the industry in a new competitive environment. An issue here is whether such an objective remains relevant now that the NEM is in operation. In Victoria, for example, initial restructuring provisions have been separated from those relating to ongoing regulation of the new industry into distinct Acts. Given that the NEM is still at an early stage, however, ACIL does not consider that any change to this objective is a pressing matter.

On balance, ACIL considers at this stage that the objectives specified in the Act and Regulation are generally appropriate and targeted at addressing potential problems that may arise in an unregulated electricity market.



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## 4. Identification and assessment of restrictions on competition

This chapter seeks to identify provisions that may involve potential or actual restrictions on competition. Even though the overall intent of the legislation is clearly pro-competitive and was fundamental to the development of a competitive electricity industry in Queensland, there may be provisions in the Act and Regulation that could be described as restrictive or having restrictive consequences.

A number of restrictions may be unnecessary or even undermine the achievement of the objectives of the Act. These restrictions may also act to reduce the net benefits available from the Queensland electricity industry.

In order to retain a restriction on competition, NCP requires not just that there are net benefits from the restriction, but that these benefits cannot be achieved through less restrictive means. A range of regulatory or management approaches could potentially achieve the objectives of the Act while at the same time involving less restriction on competition.

Some restrictions are likely to be unimportant in their own right but should be considered as a component of other restrictions. However, many restrictions are minor in their effects and would be required under almost any regulatory framework. This report is concerned with identifying those provisions that might give rise to important restrictions on competition that could distort economic efficiency and reduce the benefits derived from the Queensland electricity industry.

There is a need to relate means (nature of the restriction) to ends (objectives). That is, we need to assess the purpose of a restriction and how that restriction contributes to (or detracts from) the attainment of an objective, and to identify restrictions that do not contribute to the achievement of any objectives.

Potential restrictions can be classified in terms of the nature of the restriction on competition. It is then necessary to discuss how, in practice, the restrictions impede competition and how they affect other objectives pursued by governments. This includes consideration of employment, regional development, social, consumer and environmental objectives.

Restrictions on competition can take the form of barriers to entry, barriers to exit, and barriers to innovation. A checklist of restrictions is contained in Box 3. This Box also contains an overview of the types of restrictions contained in the Act and Regulation.

Box 3: List of potential restrictions on competition

Does the legislation prevent entry to a market or does it in some way disadvantage new or would be entrants? For example, does it:	The Act encourages entry. Only discriminates in a minor way against new entrants. The Act imposes entry costs through licensing requirements.
<ul style="list-style-type: none"> <li>▪ Create or protect a monopoly or monopsony;</li> </ul>	Non-contestable customers do not have choice. The Act creates retail monopolies. Natural monopoly is recognised, but regulated.
<ul style="list-style-type: none"> <li>▪ restrict competition by licensing or imposing standards;</li> </ul>	The Act requires electricity entities to be licensed and comply with technical standards.
<ul style="list-style-type: none"> <li>▪ restrict the entry of potential sellers or buyers into a market, or</li> </ul>	The Act allows entry subject to entry conditions.
<ul style="list-style-type: none"> <li>▪ Limit who may own a business or the number that may be operated.</li> </ul>	No restriction on scale of business, but there are requirements to hold a licence and criteria for the award of a licence.
Does the legislation constrain business? For example, by limiting the scope to:	Electricity entities must comply with the provisions of the Act.
<ul style="list-style-type: none"> <li>▪ adopt innovative methods of production;</li> </ul>	No, provided technical standards are met.
<ul style="list-style-type: none"> <li>▪ introduce a new product, modify an existing one or advertise them;</li> </ul>	No, provided technical standards are met.
<ul style="list-style-type: none"> <li>▪ employ workers of its choosing, set its prices, select its hours of operation or choose its level of production;</li> </ul>	No.
<ul style="list-style-type: none"> <li>▪ achieve economies of scale, or</li> </ul>	No.
<ul style="list-style-type: none"> <li>▪ purchase goods or services from a third party.</li> </ul>	No.
Does the legislation discriminate between firms or consumers? For example does it:	The only area of discrimination is the division of customers into contestable and non-contestable.
<ul style="list-style-type: none"> <li>▪ benefit one class of consumers to the detriment of others;</li> </ul>	Yes. Smaller customers do not have choice of supplier.
<ul style="list-style-type: none"> <li>▪ restrict entry of goods or services from other parts of Australia;</li> </ul>	No. The Act implements the NEM allowing cross border trade in electricity and allows entry of interstate retailers.
<ul style="list-style-type: none"> <li>▪ discriminate against persons on the basis of location;</li> </ul>	Uniform tariffs for non contestable customers mean that the community generally is subsidising electricity consumption by those in remote areas.
<ul style="list-style-type: none"> <li>▪ advantage the public sector over their private sector competitors;</li> </ul>	Probably neutral. Some advantage in terms of Works. Some disadvantage in terms of prescription in relation to employee terms and conditions.
<ul style="list-style-type: none"> <li>▪ offer commercial incentives only to particular businesses or persons;</li> </ul>	No.
<ul style="list-style-type: none"> <li>▪ differentiate between firms in access to resources or infrastructure;</li> </ul>	No.
<ul style="list-style-type: none"> <li>▪ impose administrative costs in a discriminatory manner;</li> </ul>	No.
<ul style="list-style-type: none"> <li>▪ restrict consumer access to goods or services, or</li> </ul>	Non-contestable customers do not have choice.
<ul style="list-style-type: none"> <li>▪ prevent commercial outcomes from competition.</li> </ul>	No.

These barriers can result in the inefficient operation of markets, particularly through non-competitive behaviour. Markets which are not operating efficiently can, in turn, result in: the allocation of resources to

sub-optimal uses; undue concentration of market power; monopoly rents; the constraint of consumers' choices; and, lower productivity growth due to the suppression of innovation.

On the other hand, there are instances where restrictions on competition can lead to the enhanced operation of markets (for example the restriction on a vertically integrated company competing with its own customers either upstream or downstream). In cases such as these, restrictions on competition might in fact be pro-competitive. This highlights the need for an examination of the impact of restrictions on competition according to the specific circumstances of the market in question.

## 4.1 Defining the market

If markets are not defined correctly, then legislative provisions which are restricting competition may be ignored or, alternatively, provisions which are not necessarily restricting competition may be unnecessarily removed. An important feature of NCP reviews therefore is the delineation of the relevant markets.

The Trade Practices Commission (now the Australian Competition and Consumer Commission) has described the concept of a market as:<sup>14</sup>

“...the area of close competition between firms, or, putting it a little differently, the field of rivalry between them (if there is no competition there is of course a monopolistic market). Within the bounds of a market, there is substitution — substitution between one product and another, and between one source of supply and another in response to changing prices. So a market is the field of actual and potential transactions between buyers and sellers amongst whom there can be strong competition, at least in the long run, given sufficient price incentive.”

There are a number of aspects of competition that are potentially affected by the Act and its subsidiary legislation. These include:

- Competition between generators within Queensland and with generators in other States to sell electricity in the wholesale market.
- Competition from alternative means of meeting demand for electricity such as interconnection or cogeneration.
- Competition between electricity retailers to sell electricity to contestable customers.
- Competition between electricity and alternative sources of energy (e.g. gas) in end uses for both domestic and industrial and commercial business customers.

<sup>14</sup> Trade Practices Commission (1995), *Guide to Authorisations and Notifications — A Guide on Provisions for Exemptions from Anti-competitive Conduct Under the Trade Practices Act*, Commonwealth of Australia 1995.

- Competition between electricity entities and other businesses for labour, capital and other inputs to production.

The relevant direct market to which this Act relates is increasingly the National Electricity Market. The market for electricity has become increasingly competitive with electricity market reforms in Queensland allowing the entry of new sources of electricity supply. The latter includes independent power producers, co-generators and self-generators who sell surplus electricity onto the grid. The horizontal and vertical disaggregation of state owned electricity assets into competing corporations has also contributed to increased competition among Queensland based entities. Queensland's entry into the NEM and interconnections with New South Wales has allowed direct competition between electricity suppliers in Queensland and other states. Electricity suppliers are also in competition with suppliers of gas and other fuels for certain industrial and commercial applications. Should proposed gas pipeline projects proceed, electricity on gas competition will increase further.

The level of competition affecting electricity suppliers in Queensland varies with market segment. There are contestable and non-contestable activities in the electricity supply industry. Generation and retailing are considered to be contestable markets and the Act encourages entry by new generators and retailers. Distribution and transmission are considered to be natural monopoly activities. The Act recognises this and provides for the regulation of these activities to prevent the abuse of monopoly power. In this way the Act seeks competitive outcomes from uncompetitive market structures. However the Act does not reinforce this natural monopoly. While distribution entities are assigned distribution areas, the Act provides for more than one distribution authority to be issued for a distribution area. Moreover, the Act provides for the issue of more than one transmission authority.

## 4.2 Restrictions on competition in the Electricity Act and Regulation

The Act and Regulation cover a range of matters that largely define the framework within which the Queensland electricity industry operates and electricity entities compete. Among other things, the Act and Regulation:

- define the basic concepts of electricity industry operations;
- establish a licensing system for the industry conferring rights and obligations;
- define which customers are contestable and establish various forms of regulatory protections for customers;
- provide for regulation over the use and production of electricity;
- define powers and obligations for the undertaking of works by electricity entities;

- define the role of the QCA in overseeing market conduct;
- provide for the regulation of technical and safety matters; and
- prescribe certain conditions of employment for employees of government-owned electricity entities.

The remainder of this chapter assesses various provisions of the Act and Regulation that potentially restrict competition. This analysis does not encompass provisions that deal **exclusively** with participation in the NEM or with safety, because these are explicitly excluded from the terms of reference.

For the purposes of this report, the potential restrictions on competition in the Act and Regulation have been categorised as:

- Legislated monopoly or exclusive arrangement for provision.
- Restrictions on market entry (licensing).
- Price controls.
- Prescribed quality or technical standards.
- Restrictions on conduct of a business.
- Allocation of licences or rights denied to non-holders.

In practice, some of the restrictive provisions fall into more than one of these categories. In these cases, we have attempted to avoid duplication by appropriate cross-referencing.

#### **4.2.1 Legislated monopoly or exclusive arrangement for provision**

As discussed in Chapter 2, under the existing structure of the Queensland electricity supply industry there are a number of services provided by monopoly suppliers. In particular, electricity transmission, distribution, and retail supply to non-contestable customers are all provided under a monopoly arrangement. Of these, however, it is only the legislative monopoly over non-contestable customers whereby the Act and Regulation serve to restrict competition in a potentially competitive sector of the industry. Distribution and transmission, as noted above, are natural monopoly activities and there is a case, in principle, for restrictions on the pricing decisions of natural monopolies.

##### **Monopoly over non-contestable customers**

The Act provides the ability to declare customers contestable (through the Electricity Regulation) and to issue an authority “with a retail area.”

Retail entities that have a retail area must sell to non-contestable customers only within that area and may sell to contestable customers outside of and within the area. They can only retail electricity to non-contestable customers outside of their retail area if the customer is not in

the retail area of another retailer or if the other retailer agrees to the sale. Retailers without a retail area can only sell to contestable customers.

At present contestable customers are defined in the Electricity Regulation as those consuming more than 200 MWh of electricity per annum. As noted earlier, the Queensland Government has recently announced that contestability will not be extended to all customers, although this decision will be reviewed in two to three years.

*Nature of restriction*

The current arrangements essentially establish a legislative monopoly over the supply of retail services to customers consuming less than 200 MWh of electricity a year and prevent any other retailer from competing with incumbent retailers in their area.

*Objective of restriction*

The original purpose of the restriction was to permit the staged introduction of retail competition to enable a smooth transition to a competitive retail market. This approach — involving opening up competition to a limited number of larger customers first — has also been adopted in other States. The recent decision by the Queensland Government to retain the restriction, however, was based on a concern that full retail competition for all customers would lead to unacceptable price impacts in regional areas. This can be seen as part of the broad objective, as discussed in chapter 3, to “ensure that prices are fair and reasonable”.

*Assessment of implications for competition*

This is an anti-competitive restriction that discriminates against smaller customers. The monopoly provision of retail services to non-contestable customers prevents these customers from obtaining the price and service benefits that flow from competition among retailers.

While regulation of prices and service quality and standards is an attempt to replicate competitive market outcomes, regulation is usually a poor substitute for real competition. Regulation is also usually administratively costly. There is also the potential for non-contestable retailers to gain a competitive advantage in the markets for competitive customers. For example, retailers could discriminate between the market segments, charging higher prices in the non-contestable segment where there are little or no substitution possibilities. While the Regulator may attempt to prevent such activity, information asymmetry will always work to undermine the capacity of the Regulator to enforce competitive pricing and service quality.

*Assessment of costs and benefits*

Removing the restriction by extending contestability to all customers would enable many customers to obtain the price and service benefits that

flow from competition among suppliers. As noted in Section 2.5, contestable customers have enjoyed significantly larger reductions in electricity prices than non-contestable customers since the establishment of the NEM in 1998, an indication of the order of magnitude costs that the restriction is imposing on non-contestable customers.

Retailers other than Energex Retail and Ergon Energy Retail would also benefit from removal of the monopoly over non-contestable customers by being able to compete for a larger market. This could make the entry into the Queensland market considerably more attractive and lead to greater competition in the already contestable segment.

On the other hand, extending competition may also involve some costs. These costs include installation of any necessary metering equipment, development of IT systems, and/or establishing metrology procedures. However, other jurisdictions are moving towards full contestability, judging that this is technically and economically feasible and that the benefits of increased competition will outweigh any additional costs. In addition, maintaining the monopoly over the majority of customers in the State may undermine the attractiveness of the remaining retail market to many potential entrants.

The benefits of extending competition, however, need to be weighed against the achievement of broader government objectives, including equity issues such as ensuring fair and reasonable electricity prices across the State.

The Queensland Government commissioned a review of the costs and benefits of the introduction of Full Retail Competition (FRC) in the Queensland Electricity Industry.<sup>15</sup> The review estimated the costs of implementing FRC, which involves significant systems development to allow contestability to occur, to be at least \$184 million over five years. This, it was argued, is a conservative assessment and costs may be even higher. In contrast the report estimates the actual benefits resulting from the introduction of FRC at \$52 million over 5 years. Therefore, based on the analysis undertaken, the costs of FRC was found to exceed the benefits. ACIL has not undertaken an assessment of these estimates or the underlying methodology as part of this review.

#### *Alternatives*

ACIL considers that there may be alternative means of achieving broader government objectives without foregoing the significant benefits of retail competition.

Given that the bulk of such differential costs are likely to occur in the distribution, rather than retail sector, one option is to smooth these costs

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<sup>15</sup> Queensland Government (2001). Report on the Review of Costs and Benefits of Full Retail Competition in the Queensland Electricity Industry.

in the distribution tariffs, which would have to be paid by all retailers accessing the network.

Another would be to provide explicit subsidies for these community service obligations, funded from Government revenue. The Government already provides CSO payments to Energex Retail and Ergon Energy Retail to compensate for losses incurred under the uniform pricing policy. These subsidies could also be extended to private retailers to fund subsidies for regional customers.

Both of these approaches have been adopted in other jurisdictions in order to address similar regional pricing concerns.

It is recognised, however, that the Queensland Government has made a policy decision not to extend full retail competition to domestic customers but will review this decision in two to three years.

#### **4.2.2 Restrictions on market entry (licensing)**

In establishing this Public Benefit Test, the primary area of the Act and Regulation identified as potentially anti-competitive were the provisions imposing the licensing arrangements for the industry.

A number of related aspects of the licensing framework could potentially constitute a restriction on competition by impeding entry to a market. Whether or not these restrictions actually impede entry by adding unnecessarily to the cost of entry depends on the detail of the restriction and its application. These potential restrictions include:

- the requirement to have a relevant authority or licence;
- the ability to issue special approvals;
- the considerations and processes involved in issuing and amending an authority, including a requirement to consider government policy in granting an authority; and
- the imposition of fees for holding an authority.

The focus of this discussion is on aspects of the licensing system that could deter new entry to the industry. Limitations on being able to hold authorities to undertake activities in different sectors of the industry are discussed in section 4.2.3. Potential restrictions on competition arising from service quality standards and constraints on the conduct of a business from complying with various conditions of the authorities are examined in more detail later.

#### **Requirement to have relevant authority**

The main potential restriction on entry to the market is the requirement to hold a licence or authority to undertake defined activities in the electricity industry. While authorities are not transferable, this is not an important restriction as there is no restriction on the issue of new authorities under



the Act and new authority holders have to meet the same requirements and conditions as existing authority holders.

The electricity supply industry has components that are considered to be competitive or contestable (generation and retailing) and those considered to be of a natural monopoly nature (transmission and distribution).

Chapters 2 and 9 of the Act cover the various authorities required to participate in the electricity supply industry. The Act provides for generation, transmission, distribution and retail authorities and special approvals. Chapter 2 describes the activities that an authorisation allows its holder to engage in along with conditions attached to the authorisation.

A “**generation authority**” authorises its holder to connect a generating plant to a transmission grid or supply network and to sell electricity through the spot market in accordance with the Market Code or otherwise. The holder must comply with laws applying to the development, building, operation or maintenance of generating plant.

A “**transmission authority**” authorises its holder to operate a stated (in the authority) transmission grid and to connect that grid to another stated transmission grid. While transmission is generally considered to be a natural monopoly, the Act does not preclude the entry of new transmission entities.<sup>16</sup>

**Distribution** is also considered to be a natural monopoly activity and there are strong grounds for regulation to prevent the abuse of market power. In Queensland there are currently two state owned distribution companies. Under the Act distributors are allocated distribution areas, although the Regulator may issue two or more distribution authorities for the same distribution area. Distributors are able to connect to premises outside of their distribution areas but not to premises in another distribution area, unless that entity agrees. Country Energy also performs a distribution function but does so under a special approval.

**Retailing** is considered to be potentially a competitive sector of the electricity supply industry. There are two types of retail authorities available under the Act that distinguishes between contestable and non-contestable customers.

The two retail companies (Energex Retail and Ergon Energy Retail) that supply non-contestable customers have been issued with retail authorities “with a retail area”. Retail authorities that have a retail area must provide retail services to non-contestable customers within and only within that area and may sell to contestable customers anywhere. They can only sell to non-contestable customers outside of their retail area if the customer is not in the retail area of another retailer, or if the other retailer agrees to

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<sup>16</sup> That is, these would construct new “grids” that could remain separate or link with the existing grid. In Queensland, the grid does not cover the whole state and there are many consumers not connected to the transmission grid.

the sale. Only one retail authority with an area can be issued for a particular area. Retailers without a retail area can only sell to contestable customers. Country Energy also performs its retail function under a special approval.

**Special approvals** can be issued in certain circumstances. These are discussed separately below.

*Nature of restriction*

The requirement to hold an appropriate authority represents a potential barrier to entry into a market and hence a restriction on competition which may lead to higher prices and /or poorer services to electricity consumers. Generally speaking, however, requirements to hold licences are not barriers to entry provided they are freely available upon meeting appropriate criteria to hold a licence.

*Objective of restriction*

The requirement to hold an appropriate authority is a means of enabling activities of electricity suppliers to be regulated so as to achieve compliance with provisions of the Act that address problems that may arise in an unregulated market. Through the licence the Regulator is able to impose conditions on the operations of electricity entities and to enforce the provisions of the Act. For example, the Regulator is able to ensure that the entity cannot impose costs on others through the effects of their actions on the whole network and to regulate the pricing and supply decisions of a monopoly supplier. Thus the requirement to hold a relevant authority is an integral part of achieving the broad objective of the Act to set a framework for all electricity participants that promotes efficient, economical and environmentally sound electricity supply and use.

*Assessment of implications for competition*

If the number of authorities were fixed, their non-transferability would constitute a barrier to entry because those outside of the industry could not obtain an authority. However, since new authorities can be granted under the Act, this is not restrictive. The purpose of this provision is to ensure that applicants meet the same conditions for holding an authority as incumbents.

There is no restriction in the Act or Regulations on the number of generation or retail authorities, provided that the applicant meets a number of requirements and provided the applicant agrees to comply with certain licence conditions. The recognition of interstate retail licences also facilitates entry and competition from a wider range of electricity supply entities. Even if there were a restriction on the number of authorities granted to Queensland entities for generation, say, this may not result in a significant diminution in competition since Queensland generators are competing with a large number of interstate generators through the NEM.

While transmission and distribution are typically regarded as natural monopolies, in theory, the Regulator may issue more than one transmission and distribution authorities for the same distribution or transmission area. This would allow new transmission and distribution lines to enter or cross the areas currently serviced by incumbents. The provision provides flexibility to new investors in transmission (such as those building entrepreneurial interconnectors or a transmission line to their remote project) to link in to the existing system at the most advantageous point. Similarly the Act, quite appropriately, does not preclude new distributors attempting to service areas inside the area of an incumbent.

In summary, the requirement to hold an appropriate authority does not present a barrier to entry in practice but does impose some costs on new entrants (discussed shortly).

#### *Assessment of costs and benefits*

As noted above, the requirement to hold an authority enables the Regulator to ensure that an electricity entity cannot impose costs on others through the effects of their actions on the whole network and to regulate the pricing and supply decisions of a monopoly supplier. This benefits consumers and electricity industry participants alike. Unrestricted entry could lead to unskilled operators, poor maintenance practices, inferior equipment and inadequately resourced management which could adversely affect safety and environmental standards, as well as the reliability of electricity supply.

While the requirement to hold an authority imposes some costs on new entrants through the process of gaining approval and the payment of fees, these are relatively small (see discussion in following sections). In principle, the requirement to hold an authority may prevent some potential participants from entering the market leading to greater competition and lower prices and/or better services for electricity consumers. In practice, however, as discussed above, the requirement to hold an authority presents no significant barrier except to entities which may threaten the safe, secure and economic supply of electricity.

It is therefore considered that the licensing regime represents an effective means of ensuring that the electricity market operates to achieve objectives such as safe and reliable supply. All other NEM states have similar licensing regimes — see Attachment A2. The requirement is an integral part of achieving the broad objective of the Act to set a framework for all electricity participants that promotes efficient, economical and environmentally sound electricity supply and use. Given the social and economic importance of electricity supply, this in turn facilitates the achievement of the Government's Priority Outcomes in relation to more jobs, building Queensland's regions, and valuing the environment.

*Alternatives to licensing*

A range of broad regulatory alternatives to the licensing scheme is presented in the next chapter of this review.

**Special approvals**

The purpose of special approvals is to enable, in special circumstances, electricity entities and other persons to perform activities normally authorised by a generation, transmission, distribution or retail authority, without the authority. The holder of a special approval is required to comply with the Regulations, the Market Code (if the holder is a code participant) the National Electricity (Queensland) Law, and with the conduct rules made by the QCA.

Special approvals are generally used in cases where the generation, supply and sale of electricity is incidental to the primary activity, and often where a “public” supply of electricity is not available (e.g. tourist facilities on islands, mining towns).

A special approval has also been issued to Country Energy to allow it to undertake both distribution and retail functions within an area in Queensland where it and its predecessors have operated for many decades. It is understood there are a number of policy and regulatory issues associated with this ‘cross-border’ supply that currently prevent the grant of a distribution and a retail authority to Country Energy.

*Objective of restriction*

Special approvals are issued to cover special circumstances, and each application for a special approval is looked at in the light of its own particular circumstances. Furthermore, special approval holders must comply with the Act. By providing a special approval, however, significant compliance costs can be avoided. In essence, special approvals can be seen as contributing to the overall objective of the Act to “set a framework for all electricity industry participants that promotes efficient, economical and environmentally sound electricity supply and use.”

*Nature of restriction*

The ability to issue a special authority raises potential competition concerns because the holder of a special approval can generate, transmit, distribute and sell electricity to consumers. The special approval holder could be in competition with a holder of a normal authority. In principle, this could involve competition with other potential suppliers. If this were the case, the holder of a special approval may have a competitive advantage because it would not be subject to the restrictions against vertical integration and it may have less up-front approval costs. If special approvals were used simply as a device for allowing certain businesses to avoid the processes and preconditions for being issued a normal authority, they would have a competitive advantage relative to others.

*Assessment of implications for competition*

In practice however, the extent of such competition and the competitive advantage is likely to be limited because special approvals are generally used where there is no public supply available.

As a matter of policy, rather than mandated by legislation, the same process and criteria are used to assess applications for special approvals as is used for normal authorities. A special approval would not appear in practice to be an effective back door entry strategy.

*Assessment of costs and benefits*

If there were no special approvals the Act would not allow the provision of electricity in situations where (for example in remote areas) it is not practicable or economic for there to be separate generation, distribution and retail entities. The existence of special approvals therefore benefits both the suppliers in these areas and their customers. It is also consistent with the Government's Priority Outcomes in relation to building Queensland's regions.

ACIL considers that the net public benefits of being able to issue special approvals outweigh any anti-competitive costs provided this device is used appropriately.

*Alternatives*

One alternative to special approvals is to force all market participants to go through identical channels to obtain the relevant authorities. This approach would avoid any possible preferential treatment but would remove flexibility in the Act to meet special circumstances. ACIL considers that this alternative would be contrary to the public benefit.

There may however be a need for clearer statements about the processes to be used in relation to special approvals, to avoid any possible perception that these could be used in an anti-competitive way.

A special approval was used in the case of Country Energy to allow it to continue to undertake normal distribution and retail functions, until policy and regulatory issues associated with this cross-border supply are resolved. It is desirable that Country Energy be authorised by the appropriate authorities rather than a special approval. It is understood the outstanding cross-border supply issues are under consideration with a view to regularising Country Energy's licensing as soon as possible.

**Issuing of authorities**

Chapter 9 of the Act covers the issuing of authorities, the information required of applicants and the preconditions the Regulator must take into account in deciding to issue an authority. In general, the information requirements and assessment criteria applied to applications are aimed at

reassuring the Regulator that the applicant is a suitable person, or company, to be a participant in the electricity industry.

For a generation authority, the Regulator must be satisfied that the applicant will operate the stated generation plant and supply electricity of a quality suitable for the intended transmission grid or supply network. For a transmission authority, the Regulator must be satisfied that a proposed transmission grid has, or will have, the technical capabilities to provide for transmission of electricity of a quality likely to be needed to be transmitted through the transmission grid and the proposed transmission of electricity is, or will be, adequate, safe and reliable.

Applicants for authorities or the owners of electricity facilities are required to be suitable persons to be an electricity entity or the owner of an electricity facility. In deciding whether an applicant or an owner is a suitable person, the Regulator may take into account: the person's previous commercial and other dealings and the standard of honesty and integrity shown in the dealings; and any failure by the person to perform commercial or statutory obligations and the reasons for the failure; and the person's criminal history. If the applicant is a corporation, the Regulator may take into account these issues for persons that are shareholders, directors or holders of other interests in the corporation. For an applicant, the Regulator may take into account the applicant's competence to be an operator and additional matters prescribed in the regulations. A regulation may prescribe matters the Regulator must or may consider in deciding the applicant's competence to be the operator.

The Act also includes a shortened process for holders of interstate electricity retail licences applying for a Queensland retail authority. A person may apply for the issue of a retail authority if the person holds an equivalent authority or licence issued under the law of another state. The application must provide further relevant information or evidence the Regulator requires to decide the application. The Regulator may dispense with any of the requirements of this part in relation to the application for or issue of a retail authority applied for under this section. The applicant may not apply for a review of, or appeal against, the decision of the Regulator.

Aside from information specified in the Act, applicants for electricity authorities must provide any relevant information the Regulator requires to decide the application.

An application for a **generation** authority must describe the generating plant to be connected; and the transmission grid or supply network to which it is to be connected and whether the applicant intends to sell electricity and, if so, the basis on which the applicant intends to sell. These details are stated on the authority along with the term of the authority.

An application for the issue of a **transmission** authority must state the grid proposed to be operated and the transmission grid, if any, to which it is proposed to be connected. A transmission authority must state these details and the term of the authority. The authority may also state the precise limits of the transmission grid; or that the transmission grid is to operate in a stated area. The Regulator may issue 2 or more transmission authorities for the same area.

An application for a **distribution** authority must state the proposed distribution area. The authority may state the term of the authority and the Regulator may issue two or more distribution authorities for the same distribution area.

An application for the issue of a **retail** authority must—if the application relates to the sale of electricity to non-contestable customers—state the proposed retail area. The authority may state the term of the authority. If the authority states a retail area, the authority may state when the right to the retail area ends.

An application for **special approval** must state the things proposed to be done under the approval. In deciding whether to give the approval, the Regulator may consider the matters that the Regulator considers appropriate.

#### *Nature of restriction*

There is the potential for the processes or conditions associated with issuing an authority to restrict competition. Entry to the industry could be impeded if these are excessively burdensome conditions that are irrelevant to the attainment of the objectives of the Act (for example not related to the ability of the person to efficiently supply services) or involve discriminatory treatment of applicants.

#### *Objective of restriction*

The purpose of this restriction is to ensure that the Regulator can determine if the grant of an authority is consistent with the objectives of the Act and Regulation in relation to ensuring the safe, secure, efficient and economic supply of electricity. As part of this, the approvals process is clearly aimed at the implicit objective to ensure that a person who generates or transmits electricity is a “suitable person” (see section 3.3.1).

#### *Assessment of implications for competition*

The information requirements placed on applicants for authorities are unexceptional and necessary to determine if the grant of an authority is consistent with the objectives of the Act.

These conditions are necessary for public safety, to protect against externalities that may be associated with the generation of electricity and to protect the integrity of the electricity supply process. The condition

does not discriminate and is not considered to be a restriction on competition.

The information and precondition requirements do not appear to be aimed at restricting entry to the electricity market, nor do they involve the Regulator in decisions about whether the new entrant is “needed” by the market. Both of these criteria would be anti-competitive.

The area where the licensing process has the potential to be anti-competitive is the requirement that the Regulator should have regard to government policy. If government policy is seeking to prevent the entry of a particular form of generation, for example, this may be anti-competitive and the benefits of such an approach may need to be considered.

The ‘proper person’ conditions could potentially be used to exclude certain persons from entering the industry and therefore could constitute a restriction on competition. Do the restrictions serve the objectives of the Act? If they are applied in a restrictive way, whereby, for example, eligibility was deemed to be the operation or building of a similar facility, then new entry might be restricted. It is not clear that this is the case, however, and new entrants appear to be able to innovate and enter the industry without severe restrictions.

The recognition of interstate retail licences facilitates competition by reducing the regulatory burden on retailers wishing to enter the Queensland retail market. The lack of an appeal process is not discriminatory, since if an interstate retailer is unsuccessful in obtaining a retail authority through this shortened process, there is nothing to prevent the unsuccessful retailer from then applying for a retail authority in the normal way.

#### *Assessment of costs and benefits*

While the processes and defined preconditions required to be satisfied by the Regulator in issuing an authority impose compliance costs on market participants, they are generally considered to provide an overall benefit by helping to protect the security and safety of electricity supply. This benefits consumers and electricity entities alike. There may be some scope, however, to further restrict the potential for the Regulator to be discriminatory in consideration of applications.

#### **Requirement to consider government policy in granting an authority**

In deciding whether to issue the authority, the Regulator must consider relevant government policies about environmental and energy issues and the likely environmental effects of building and operating the generating plant; and additional matters prescribed under the regulations. In deciding whether to issue the authority, the Regulator may consider matters prescribed under the regulations. If the Regulator refuses to issue the



generation authority sought by an applicant, the Regulator must promptly give the applicant a written notice informing them of the refusal, the reasons for the refusal and the applicant's right of appeal.

*Nature of restriction*

The requirement to consider government policy in issuing an authority may potentially restrict entry to the industry and it may impose costs on doing business, depending on the policies involved.

*Objective of restriction*

The purpose of the requirement is to facilitate the achievement of broader government policy objectives in the industry, particularly in relation to the environment. The objects in Part 2 of the Act include specific reference to the “environmentally sound” supply and use of electricity.

*Assessment of implications for competition*

It is appropriate that the Regulator take into account other government environmental and energy policies. The need to consider the environmental impact of a proposal is not in itself anti-competitive. The implications for competition depend on the nature of the environmental approval processes. However, in certain circumstances these policies could constitute restrictions on competition. For example, the current energy policy indicates that authorities will not be granted for new coal fired power plants in Queensland. The policy states that:

“In light of the significant capacity developments with new and existing coal-fired power stations no further generating licences for new coal fired power stations will be issued by the State unless there is a clear and demonstrated need. In putting this measure in place, the Government is meeting its responsibility to take definite and deliberate steps to help reduce levels of greenhouse gas emissions. Importantly for the economic development of the State, this clear statement by the Government also removes the uncertainty that has existed in the market in recent times about future investment in further power station projects.

Power station developments which have already been granted Generation Authorities, such as, Callide C, Tarong North, Millmerran and Kogan Creek, will not be affected by this measure.”

This is a restriction on competition because it restricts the ability of incumbents and potential entrants to choose the lowest cost fuel source. If this were the case, this would add to the cost of generating fuel in Queensland. In the context of the national market, this may result in Queensland electricity prices being higher than they would be without the restriction.

*Assessment of costs and benefits*

An overall assessment requires balancing the costs of restricting competition with any environmental benefits arising from this policy. Provided these processes adequately compare social benefits and social costs, approvals will reflect the community interest. The Queensland Government clearly has an obligation to make policy with respect to matters such as environmental protection and the development of new energy sources. Indeed, one of its Priority Outcomes relates to valuing the environment. It is only noted here that when this is done through the addition of restrictive measures that a cost is involved in terms of the loss in competition benefits that might otherwise have arisen, and potentially higher prices for electricity consumers. The national and state benefits arising from the policy may well outweigh these costs. The Queensland Government has an obligation to comply with NCP principles in relation to its legislation and regulations.

*Alternatives*

The alternative would be to remove this restriction. This would be inappropriate provided that the relevant government policies are consistent with the public benefit.

**Amendment of authorities**

The Regulator may amend the conditions stated in an authority, but only with the entity's agreement. The Regulator may amend a generation authority only if the Regulator is satisfied the amendment is necessary having regard to the objects of this Act; or necessary or convenient to help or give effect to the objects of the Act, the restructuring of the Queensland electricity supply industry, or reforms concerning the Queensland electricity supply industry; or the Regulator has given the holder of the authority an opportunity to make representations on the matter.

*Nature of restriction*

Amendments to authorities could potentially restrict competition if they imposed additional constraints on the holder not imposed on others.

*Objective of restriction*

The ability to amend an authority is aimed at ensuring that the authority, as the instrument of regulation, reflects the regulatory framework as it evolves. This can be seen as part of the broad objective to set a framework for all electricity industry participants that promotes efficient, economical and environmentally sound electricity supply and use.

*Assessment of implications for competition*

Because amendments require the agreement of the holder, and/or can only be made in accordance with the objects of the Act, this provision does not appear to be restrictive.

*Assessment of costs and benefits*

The current arrangements appear to provide a transparent process for allowing amendments to authorities, while providing some protection from arbitrary actions by the Regulator. Since amendments may be made only if necessary to meet the objectives of the Act, the provision should contribute to ensuring that the framework promotes the efficient, economical and environmentally sound supply and use of electricity. This in turn should benefit both industry participants and electricity consumers. There may be some scope, however, to further restrict the potential for the Regulator to be discriminatory in consideration of modifications to authorities.

*Alternatives*

This is not judged to be a restriction on competition and as such there is no need to consider alternatives.

**Authority Fees**

The Act provides for the payment of fees for holding an authority. The current fees are as follows:

Table 4: Electricity authorities/special approvals annual licence fees — Queensland

Entity Type	2000-01 (\$)
Generation Authorities	
Up to 50 MW	210
51-100 MW	420
101-200 MW	840
201-500 MW	2,100
501-1000 MW	4,200
1001-2000 MW	8,400
2001-3000 MW	12,600
3001 MW plus	16,800
Transmission Authorities	10,500
Distribution Authorities	10,500
Retail Authorities	
With a Retail Area	10,500
Without a Retail Area	7,875
Special Approvals	210

Nominal prescribed application fees also apply. Licence fees also apply in other States (see Attachment A2).

*Objective of restriction*

The purpose of the fee system is to recover the costs of administering the licensing system for the electricity supply industry, as part of the overall framework for the industry that promotes efficient, economical and environmentally sound electricity supply and use.

*Nature of restriction*

The requirement to pay a fee for holding the required authority to participate in a particular activity in the electricity industry could potentially constitute a barrier to entry.

*Assessment of implications for competition*

At some point, high authority fees could constitute barriers to entry. The current fees, however, are extremely low relative to those applying in other States (see Attachment A2). A large number of companies hold retail authorities to provide electricity retail services in Queensland. We do not consider the current authority fees represent significant restrictions on competition.

*Assessment of costs and benefits*

There is a sound case for recovering the costs of regulating an industry from the industry. The only significant issue that arises here is the determination of the ‘regulatory’ fees. While such a payment is reasonable, it is important that the amount be determined by a transparent process and that it complies with principles for cost recovery, most importantly that costs recovered are efficient costs. While the fees are paid by the electricity entities, ultimately consumers will bear at least some of these costs.

*Alternatives*

The alternative of charging no fees would constitute a subsidy to electricity entities and would be contrary to NCP principles. It would also mean that the costs of regulation would be transferred to government and ultimately to taxpayers.

**4.2.3 Restrictions on market entry (prohibited interests)**

There are a number of prohibitions under the Act and Regulation on the holding of multiple authorities:

- The holder of a transmission authority is not permitted to buy or sell electricity.
- The holder of a generation authority must not hold a retail authority with a retail area, and vice-versa
- The holder of a distribution authority must not hold a retail authority.

While these prohibitions are designed to prevent market power in one segment of the industry being used to distort competition in another, they restrict entry into certain electricity markets by participants in related markets, and therefore represent a potential restriction on competition.

### **Limitation on transmission entity that it cannot buy/sell electricity**

Under Section 33 of the Act, the holder of a transmission authority is not allowed to buy or sell electricity but can generate electricity for its own use.

#### *Nature of restriction*

This presents a barrier to entry by a transmission entity into other segments of the electricity supply industry.

#### *Objective of restriction*

If transmission entities were to enter other segments, control of transmission lines may enable them to obtain a competitive advantage in generation and other activities. The provision against vertical integration is designed to prevent this, thereby protecting the broad objective of ensuring the efficient and economic supply of electricity to customers on fair and reasonable terms.

It should also be noted that the provision was drafted in advance of the introduction of the NEM and the market code. At the time there was a strong motivation to move from a vertically integrated state owned monopoly to an arrangement that facilitated greater competition and private entry.

#### *Assessment of implications for competition*

The net impact on competition of the prohibition on a transmission entity also participating directly in the electricity market depends on two countervailing effects:

- The potential reduction in competition in the wholesale and retail markets of an extra competitor.
- The avoidance of possible anti-competitive action by the transmission entity if it were to distort competition in upstream of downstream markets.

This raises the question as to whether the prohibition is necessary, given that ring fencing could be adopted and the transmission entity's pricing and service provision is already subject to regulation designed to achieve competitive market outcomes. It could be argued that the restriction could be removed without serious implications for competition. However, there are well documented problems with ring fencing and with regulators being able to effectively regulate because of information asymmetry (i.e. the regulated entity knows much more about its operations and costs than the regulator).

#### *Assessment of costs and benefits*

If there were economies of scope associated with generating, transmitting or distributing electricity, these costs savings would be foregone. This

would raise the overall cost of supplying electricity and impose costs on electricity consumers and the economy as a whole.

However, such economies are likely to be limited and the marginal benefits of having one extra competitor more than offset by the benefits of the restriction in terms of encouraging competition in electricity supply. This in turn should lead to lower prices and better services to electricity consumers.

ACIL judges that the restriction is consistent with NCP principles and therefore provides a net public benefit, particularly in the early stages of the electricity market's development. It is also pertinent to note that this structural separation applies in all other NEM jurisdictions and in electricity markets in other countries.

#### *Alternatives*

While the restriction ensures a transmission entity cannot distort competition in the generation and retail markets, there may be alternative means of achieving this objective.

First, the national electricity code is already designed to provide access on fair and reasonable terms and includes provisions designed to prevent the exercise of monopoly power by owners and operators of essential facilities (such as transmission and distribution systems). The Code has been approved by the ACCC as achieving its objectives in terms of facilitating access and competition in the electricity supply industry.

The third party access arrangements under the NEM may be sufficient to ensure non-discriminatory treatment of access of generators to the transmission grid. If these access arrangements are effective, then the restriction against transmission authorities backward integrating into electricity generation may not add much further protection and should be removed.

Second, the restriction as it currently stands applies to all transmission entities, state owned or private. This would prevent companies, such as Transenergie (an entrepreneurial network service provider) from entering into generation. This may not be a desirable situation or the outcome that the legislation is seeking to achieve.

If the objective is only to prevent Powerlink from becoming a vertically integrated state owned enterprise, then the application of the restriction should be narrowed. There are several ways of doing this. For example, the Government as owner of Powerlink could issue a policy or a shareholder directive to the corporation not to enter other segments of the industry, or such a restriction could be included in the state owned corporations legislation. In principle, however, the preferred approach would be to recognise the existence of unregulated interconnectors in the regulatory framework through a separate category of transmission authority, not subject to such restrictions.

### **Prohibition on holding generation authority and retail authority with retail area**

The Regulation imposes a condition of a generation authority that its holder must not hold a retail authority with a retail area (Section 261A) and a corresponding condition on a retail authority with a retail area (Section 261C). Further, holding a retail authority with a retail area is declared to be a prohibited interest for a generation entity (Section 298D), and vice versa for a retail entity that holds a retail authority with a retail area (Section 298F).

#### *Nature of restriction*

This restriction prevents a retailer with a retail area from entering the generation sector.

#### *Objective of restriction*

This restriction is aimed at ensuring that links between generators or retailers with market power do not undermine effective competition in these markets. The relevant Explanatory Notes stated that, while generation was expected to become competitive, retailers with non-contestable customers would have significant market power and so:

“...links between generators and retailers with a non-contestable customer base in Queensland should be prohibited. If this is not done, generators could seek to pass excessive costs through to non-contestable customers to offset the cost of better financial contract deals for contestable customers. However, links between generators and retailers will be permitted where the generator does not acquire access to a non-contestable customer base. In the latter case, the generation and retail operations will be required to be ring-fenced as a condition of the relevant licence.”

#### *Assessment of implications for competition*

Technically, the provision could be argued to reduce competition to the extent that it prevents retailers with a retail area (i.e. Ergon Energy and Energex) from being able to enter the generation sector. In practice, given the structure of the generation sector and the ability of new entrants to enter the wholesale market, the restriction is considered likely to have minimal adverse impact on competition. The restriction does however ensure that a retailer with a captive market (i.e. non-contestable customers in a retail area) cannot use this market power to subsidise the operations of its generation arm, thereby potentially undermining effective competition in the wholesale market.

#### *Assessment of costs and benefits*

The costs of the restriction in the form of the possible loss of any economies of scale or scope between generation and retail and the prevention of entry by two entities into the generation sector is likely to

be small relative to the benefits arising from the promotion of effective wholesale market competition (which should lead, in turn, to lower prices and /or better services to electricity consumers). It is therefore considered that the restriction has a net public benefit.

### **Prohibition on holding distribution and retail authority**

The Regulation imposes a condition on a distribution authority that its holder must not hold a retail authority (Section 261B). In addition, Section 298E specifies that holding a retail authority is a prohibited interest for a distribution entity.

#### *Nature of restriction*

This restriction prevents a distribution entity from entering the retail market in its own right and a retail entity from entering the distribution market in its own right. While the provisions require *legal separation* – that is the authority to perform the monopoly distribution and competitive retail functions must be held by separate legal entities, it does not require *ownership separation*, which would require that there be no ownership links between the holders of retail and distribution authorities.

#### *Objective of restriction*

The underlying concern relates to the potential ability for a distribution entity, with an effective monopoly over its distribution network, to provide itself as a retailer with favourable terms and conditions of access to its distribution network to the disadvantage of other retailers with whom it competes. The requirement for legal separation is intended to prevent or reduce the ability to engage in such anti-competitive behaviour, thereby protecting the broader objective of ensuring the safe, secure, efficient and economic supply of electricity to customers on fair and reasonable terms.

#### *Assessment of implications for competition*

The relevant market on which the provisions impact is the electricity retail market in Queensland.

Technically, the requirement for legal separation could be argued to reduce competition to the extent that it prevents combined distributor/retailer businesses from being able to participate in the retail market. As noted above, however, it does not prevent related distribution and retail entities from participating in each market, as indeed is the case with both Ergon Energy/Ergon Energy Retail and Energex/Energex Retail, and any adverse impact on competition is likely to be minimal.

The requirement for legal separation, however, is likely to have a positive impact on competition in the retail market by reducing the scope for a distribution business to discriminate against other retailer competitors. This is because the services, assets and costs associated with each



function become more transparent, and anti-competitive behaviour more easily identified.

#### *Assessment of costs and benefits*

The requirement for legal separation of distribution and retail activities imposes some costs through the necessity to establish separate legal entities and the possible loss of any scale or scope economies (additional administrative overheads). Given that the creation of separate Government-owned distribution and retail entities has already occurred, and that there is still some sharing of common services and staffing, these costs are likely to be small relative to the benefits arising from the promotion of effective retail competition, including greater choice and lower prices and/or better services for electricity customers. It is also likely to require reduced regulatory effort (although there is still a need for ring-fencing oversight as undertaken by the QCA, which entails some cost). It is therefore considered that the restriction has a net public benefit.

#### *Alternatives*

One alternative would be to require full ownership separation, so that no common ownership relationships between distribution and retail entities would be permitted. Under this approach, incentives for anti-competitive behaviour would be removed completely, further reducing the regulatory effort (and associated costs) required to ensure effective retail competition. This option would however also entail additional costs associated with full ownership separation including further losses of any economies of scale or scope from the combined activity. It would therefore be justified only if considerable evidence emerged of significant anti-competitive behaviour seriously undermining competition in the Queensland electricity retail market. No other jurisdiction has adopted full ownership separation.

### **4.2.4 Price controls**

The Act and Regulation contain a number of price control provisions:

- The Minister may set prices charged for distribution services for the Mount Isa-Cloncurry supply network.
- The Minister may set prices that a retail entity may charge for providing customer retail services to non-contestable customers or other goods and services prescribed by regulation to non-contestable customers.

#### **Distribution service pricing for Mount Isa-Cloncurry network**

Under Section 89A of the Act the Minister may set prices charged for distribution services for the Mount Isa-Cloncurry distribution network.

Alternatively, under Section 89B, the Minister may direct the QCA to regulate pricing for the service.

The Ministerial power to set or direct the QCA to set distribution charges for the Mount Isa-Cloncurry supply network is explicitly included in the Act as this stand-alone network is not part of the national electricity network and, therefore, price setting does not automatically come under the jurisdiction of the QCA.

*Nature of restriction*

The provisions could be seen as anti-competitive as they set, or prescribe a process for determining prices of fees charged for specified services.

*Objective of restriction*

The provisions aim to reduce the ability of a monopoly supplier to charge monopoly prices, consistent with the legislation's broad objective of ensuring the safe, secure, efficient and economic supply of electricity to customers on fair and reasonable terms.

*Assessment of implications for competition*

The provision provides the power to the Minister to regulate prices for consumers being supplied by a monopoly.

The Minister must, in deciding the notified prices, consider the objects of the Act and relevant service quality standards. This helps to mitigate the potential anti-competitive implications from price setting.

*Assessment of costs and benefits*

To the extent that the price controls prevent the possible exploitation of monopoly power, consumers of electricity in the area benefit from lower electricity prices, while the supplier may have reduced profits from not being able to charge higher prices. However, by providing a mechanism to ensure that prices are not set at monopoly levels that artificially reduce the consumption of electricity, the price controls provide a net public benefit.

*Alternatives*

The main alternative is to remove the ability to regulate prices for this network. Given the absence of alternative suppliers, this approach would not ensure that customers were sufficiently protected from the possibility of monopoly prices. Another alternative is for the price regulation function to be undertaken by the QCA (see further discussion below).

**Regulation of retail prices for non-contestable customers**

Under Section 90 of the Act, the Minister may set prices that a retail entity may charge for providing customer retail services to non-contestable customers; or other goods and services prescribed by regulation to non-contestable customers. The definition of 'non-

contestable' customers includes those who are eligible to become contestable, but have not yet chosen to become contestable.

The Minister must, in deciding the notified prices, consider the objects of the Act and relevant service quality standards.

The current retail electricity prices and tariff conditions for non-contestable customers of Energex Retail and Ergon Energy Retail were notified in a Gazette Notice of 15 June 2001. As noted in Section 2.6.2, the regulated retail prices are uniform for all non-contestable customers regardless of geographical location. Where the regulated uniform tariff does not cover the costs of supply, the retail businesses receive a CSO payment from Government.

*Nature of restriction*

The provisions could be seen as anti-competitive as they set, or prescribe a process for determining prices or fees charged for specified services. The fact that prices are set by government rather than by an independent regulator could also give rise to perceptions that the price controls could be used to favour government-owned retailers in competition with others.

*Objective of restriction*

The provisions aim to reduce the ability of monopoly suppliers to charge monopoly prices, consistent with the legislation's broad objective of ensuring the safe, secure, efficient and economic supply of electricity to customers on fair and reasonable terms.

The way in which the provisions have been used to set uniform state-wide tariffs also indicates broader social and regional objectives.

*Assessment of implications for competition*

While retailing is potentially competitive, at the current stage of reform non-contestable customers can only buy electricity from one retailer. The provision provides the power to the Minister to regulate prices for consumers being supplied by a monopoly. In this sector of the market, there is no direct competition from other retailers and price control is clearly justified as a mechanism to ensure against the misuse of market power. However, the need for price controls only exists because of the absence of full retail contestability.

The price controls for non-contestable customers could however potentially restrict competition in the contestable electricity retail market in a number of ways.

If regulated retail prices are set too high (above the efficient costs of provision) this could allow the retailers with a retail area (i.e. Energex Retail and Ergon Energy Retail) to cross-subsidise contestable customers and secure an unjustified competitive advantage over other competitors in the contestable segment of the market. On the other hand, if prices are set too low, and insufficient reimbursement paid by the government to the

retailers with non-contestable customers, their ability to compete in the contestable sector may be impeded.

The regulated retail prices also apply to those customers who are potentially able to choose their retailer but have elected to remain non-contestable. While this provision provides protection for such customers and ensures that they can be no worse off under the competitive market, it also potentially restricts competition in the contestable sector, particularly if the regulated retail price is set at a level that is below that which emerges in the competitive market.

The impact of the price regulation of prices for non-contestable customers on competition in the contestable sector will depend largely on the extent to which the regulated prices are set in such a way that they would be consistent, at least over the longer term, with prices that would be judged to prevail in a competitive market.

The method of setting prices for non-contestable customers and for distribution charges is therefore very important. Prices should be set according to efficient pricing principles.

In principle, the potential anti-competitive implications from price setting formulae are mitigated because the Minister must have regard to the objectives of the Act. These objectives include the setting of a framework for all electricity industry participants that promotes efficient, economical and environmentally sound electricity supply and use. This would, in principle, preclude the setting of inefficient prices.

In practice, however, the level and structure of the regulated retail prices may have a significant impact on competition in the contestable sector.

#### *Assessment of costs and benefits*

The major benefit of the retail price controls is to protect non-contestable customers from the abuse of market power. ACIL considers that regulation is clearly necessary as long as there are non-contestable customers who do not have a choice of electricity retailer.

Against this, the price controls also have the potential to impose costs in the form of restrictions on competition in the contestable sector.

The benefits and costs are likely to vary between different customers. In particular, the imposition of a uniform state-wide tariff benefits customers in regional areas. The costs of these subsidies are ultimately met by taxpayers.

The issue therefore arises as to whether the objectives of the retail price controls could be achieved in a less restrictive or costly way.

#### *Alternatives*

One alternative is to remove the power of the Minister to regulate prices set by electricity entities supply non-contestable customers. Under this

situation, monopoly retailers would have the ability to exercise their market power and charge customers prices above competitive prices. In the absence of regulation, non-contestable customers would need to rely on self-imposed restraint and the limited competition provided by gas on electricity competition. These consumers would not be protected against anti-competitive pricing by other legislation. This alternative would not achieve the objectives of the Act. ACIL does not consider the removal of this provision to be in the public interest.

The concerns about removing the retail price controls would be less relevant, however, were full retail competition to be implemented for all customers. In principle, there would be little rationale on economic efficiency grounds for regulation of final retail prices, given that the monopoly elements of distribution and transmission would continue to be regulated, while the wholesale and retail markets would be subject to competition. If and when full retail contestability is achieved in Queensland, the market power justification for regulation of retail prices would be removed (given that the retail sector was judged to be sufficiently competitive). There may, of course, still be concerns about relative prices in regional areas and the potential impact of the removal of the cross-subsidies inherent in the current price controls on regional consumers and economies. As discussed in section 4.2.1, however, there are alternative mechanisms (e.g. explicit CSO payments) that could be adopted to deal with these concerns.

As also noted in Section 4.2.1, however, the Queensland Government has decided not to extend retail competition at this stage, and given this, the price controls are needed. It is more questionable, however, whether customers who are eligible to be contestable should continue to have their prices regulated other than as a transitional measure. One alternative would be to include sunset provisions for price controls for customers who are able to elect to become contestable.

Another alternative to the current retail price regulation arrangements would be for the function to be undertaken by the QCA rather than directly by government. An advantage of this approach would be that its regulation by the independent regulator at arms-length from government would remove any perception that the price controls could be used to favour government-owned retailers in competition with others. In Victoria, for example, reserve retail price regulation powers are exercised by the Minister but after receiving advice from the ORG.

#### **4.2.5 Prescribed quality or technical standards**

Another type of potential restriction on competition is the imposition of quality or technical standards. Of relevance in this case are:

- Conditions of the various types of authorities under the licensing regime established in the Act.

- The requirement to prepare standard customer connection and sale contracts.
- Standards about quality of service.

### **Conditions of authorities**

As discussed above, the Act establishes a licensing regime whereby entities wishing to engage in electricity generation, transmission, distribution and retailing in Queensland must obtain a relevant authority to do so.

The Act imposes various conditions on each of the types of authorities and the special approval. These include the licensee adhering to technical conditions associated with connecting or operating an electricity grid; complying with relevant legislation, codes and protocols applying under National Electricity Law or other legislation, and with conduct rules made by the QCA; properly taking into account the environmental effects of its activities; and payment of required licence fees. In addition, Section 252 of the Act provides that a condition may be imposed under the Act that may require compliance with a protocol, standard, code, inter-governmental agreement or another agreement stated in the condition.

Each of the types of authorities also has specific conditions reflecting the nature of the authority.

A generation authority requires a generation entity to provide electricity of a quality suitable for the transmission grid or supply network stated in the authority.

A transmission authority requires that the transmission entity:

- Must allow, as far as technically and economically practicable, a person to connect supply to a transmission grid stated in the authority, or take electricity from the grid on fair and reasonable terms subject to certain safety and other conditions being satisfied (Section 32).
- Operate, maintain, and protect its transmission grid to ensure the adequate, economic, reliable and safe transmission of electricity; and that it operate the grid in coordination with transmission grids to which it is connected directly or indirectly (Section 34).
- The transmission authority ensure, as far as technically and economically practicable, that the transmission grid is operated with enough capacity to provide network service to persons authorised to connect supply or take electricity from the grid (Section 34).

A distribution authority requires that the distribution entity must:

- Operate, maintain and protect its supply network to ensure the adequate, economic, reliable and safe connection and supply of electricity to its customers.

- Allow, as far as technically and economically practicable, a person to connect supply to, or take electricity from, its supply network, on fair and reasonable terms, subject to certain safety and other conditions being satisfied.

A retail authority requires that the retail entity must consider both demand side and supply side options to provide, as far as technically and economically practicable, for the efficient use of electrical energy.

*Objective of restriction*

The conditions of authorities specified in the Act can be seen as a key element in seeking to achieve the overarching object of the Act to “set a framework for all electricity industry participants that promotes efficient, economical and environmentally sound electricity supply and use.”

As noted in Section 3.3.1, one of the stated purposes of the authority system is to ensure that the technical and safety aspects of connection and operation of a transmission grid are assured.

The authority conditions are also clearly intended to ensure that market participants abide by NEM rules (including access to transmission and distribution networks) and QCA conduct rules to allow competitive electricity markets to operate efficiently.

In addition, several of the conditions requiring entities to consider environmental effects or demand side options are clearly aimed at environmental and energy conservation outcomes.

*Nature of restriction*

The authority conditions overseen by the Regulator can have a significant influence on the method and cost of operations of electricity entities.

The conditions may also require the regulated entities to undertake activities and expenditure that they would not otherwise have done, increasing the cost of supply of electricity and reducing its competitiveness with alternatives (e.g. gas). The requirement to adhere to certain authority conditions may also potentially restrict competition by limiting product or service innovation.

*Assessment of implications for competition*

While in theory licence conditions could restrict competition, in practice we consider any such impacts are not likely to be significant because:

- The conditions apply uniformly to all authority holders and therefore do not confer an advantage on any market participants relative to their competitors.
- Conditions to comply with NEM market rules and QCA conduct rules are clearly pro-competitive, and simply reflect the fact that the nature of the industry is such that effective competition requires observance of agreed rules. Indeed, the National Electricity Code has

been authorised by the Australian Competition and Consumer Commission.

*Assessment of costs and benefits*

ACIL considers that the benefits of these restrictions outweigh any costs in terms of restrictions on competition. The licence conditions would appear to be an effective means of achieving their technical, safety and efficient market objectives. This benefits electricity entities and customers alike. Many of these conditions are similar to those applying in licensing regimes in other States.

While the conditions may prevent entry by some entities that are unable to meet the technical or safety standards of connection, allowing such entities to participate may put at risk the safety or security of the entire system.

*Alternatives*

Because these provisions were not found to constitute restrictions on competitions, no alternatives were considered.

**Standard customer connection and sale contracts**

Section 40A of the Act requires distribution entities to prepare a standard customer connection contract to establish the terms on which it is to provide connection services to customers. Similarly, Section 50 requires retail entities to prepare a standard customer sale contract to establish the terms on which it is to sell electricity to non-contestable customers and contestable customers who have not negotiated a new contract with their retailer. The Regulator must approve both types of standard contract. The contract can be varied, but must be approved by the Regulator, providing some protection to consumers from unreasonable variations in contract terms.

The Act provides for the terms and date of effect of a standard customer connection or sale contract to be prescribed by a regulation. As noted in Section 2.6.3, the Office of Energy is currently developing standard customer connection and sale contracts in consultation with relevant businesses and other stakeholders. Until the new comprehensive standard contracts are put in place, interim standard contracts have been approved by the Regulator to meet the requirements of the Act.

*Nature of restriction*

The requirements to prepare a standard customer connection and contracts potentially restrict competition by limiting product or service innovation.

*Objective of restriction*

The establishment of standard customer connection and sale contracts is principally a customer protection measure, to protect non-contestable



customers from the exercise of monopoly power by distributors and retailers with a retail area. It was seen as providing certainty for all parties. When this provision was enacted, the Explanatory Notes stated that “these contracts, the key terms of which will be set by regulation under the Act, will be critical to protecting customers following the commencement of the market.” It was envisaged that the matters to be covered in standard customer connection contracts would be the obligation to connect, charging arrangements, dispute resolution, withholding of supply, and customers with special needs. For standard customer sale contracts, these were to be service definition, billing and flexible payment arrangements, disconnection, dispute resolution, privacy and connection.

#### *Assessment of implications for competition*

It is important to note that standard contracts may provide for different terms to apply to different types of customer. The Act also allows for a customer or retail entity to contract with a distribution or retail entity on terms different from those in the standard contract. A number of other States have established similar standard contracts as part of their regulatory frameworks. The existence of standard customer contracts could, by providing confidence and certainty to customers, facilitate the development of a more active retail market.

Distributors and retailers with retail areas have effective monopolies. This means that prescribing certain conditions does not have an adverse impact in terms of new entry to the market.

#### *Assessment of costs and benefits*

For customers facing monopoly suppliers, the requirement that the Regulator approve contracts and their terms and conditions is likely to involve significant net benefits in terms of protection against potential monopoly pricing. Retail and distribution entities will incur some compliance costs. Overall, however, the imposition of standard customer contracts is likely to facilitate competitive outcomes.

#### *Alternatives*

The requirement is not considered to be an important restriction on competition and is likely to involve significant community benefits. No alternatives were explored.

### **Standards about quality of service**

Section 92 of the Act empowers standards about the quality of service that must be provided to be prescribed by regulation:

- To non-contestable customers by retail entities.
- To all customers by transmission and distribution entities.

The Act also requires the QCA to monitor, investigate and report on compliance with the standards, in a way prescribed by regulation. An entity may be penalised financially for contravening a standard.

*Nature of restriction*

The ability to set quality of service standards potentially restricts competition by limiting product or service innovation. There is also the possibility that standards will be set too high, resulting in unnecessarily high costs to consumers.

*Objective of restriction*

The objective of this provision is that service quality in the Queensland electricity industry is upheld. The Explanatory Notes explaining this provision stated that:

“There is a need to ensure that the introduction of competition does not lead to a lowering of service standards (for example, without regulation, retailers with non-contestable customers could reduce the quality of service to those customers to focus on their contestable customers). To ensure that this does not happen, service standards must be carefully defined and administered as part of the regulatory framework.”

This explanation is questionable, since it is not so much the introduction of competition that would be expected to give rise to concerns about service quality, since any entity providing sub-standard service would presumably lose custom to its competitors. Rather, the more valid concern relates to areas where there will be ongoing market power (as is the case in the example cited in the quote). Under these circumstances, setting of standards can be seen as contributing to the broad objective of ensuring the safe, secure, efficient and economic supply of electricity to customers on fair and reasonable terms.

*Assessment of implications for competition*

Since the standards are targeted at monopoly providers, they are unlikely to have any adverse effects on competition.

It could be argued, however, that there is a danger that by the Government, rather than the economic regulator, setting standards, there may be a risk of setting standards higher than what customers would be prepared to pay for, if they had the choice. Indeed, this was recognised in the Explanatory Notes that argued that:

“It is considered that, because of the importance of maintaining and, in fact, enhancing service standards within the industry, the Minister for Mines and Energy should have responsibility for setting service standards through subordinate legislation. Development of service standards, however, will occur in consultation with the QCA, as the economic regulator, to guard against over-

investment in network assets which would then be reflected in final prices to customers.”

In some jurisdictions (i.e. Victoria), the independent economic regulator has the main role in setting service standards.

#### *Assessment of costs and benefits*

The ability to regulate standards is necessary to protect consumers in non-contestable market segments against monopoly practices. To ensure that they provide a net public benefit, however, it is important to ensure that standards will be set appropriately in a cost-benefit framework.

### **4.2.6 Restrictions on conduct of a business**

A number of potential restrictions on competition arising from conditions placed on the conduct of a business have been identified:

- Obligation to connect and supply and to sell.
- Retailer of last resort scheme.
- Making of emergency rationing orders and electricity restriction regulations.
- Directions to State electricity entities.
- Certain conditions relating to supply and sale of electricity to customers.

#### **Obligations to connect, supply and to sell**

One important area where conditions are imposed on the conduct of a business relates to obligations imposed on certain electricity entities to provide services to particular customers.

Under the Act, transmission entities must allow, as far as technically and economically practicable, a person to connect supply to a transmission grid, or take electricity from the grid on fair and reasonable terms subject to certain safety and other conditions being satisfied (Section 32). They are also obliged to provide various other network services (S.35).

Distribution entities have a similar obligation to provide customer connection services to premises within the distribution entity’s area (S.40). This obligation is limited in certain circumstances (e.g. where connection or supply needs to be interrupted to undertake works or in an emergency; or where a customer is in breach of its customer connection contract).

Similarly, retail entities with a retail area (i.e. Ergon Energy Retail and Energex Retail) are obliged to provide customer retail services to non-contestable customers within that area (S.49 (1)). Again, this obligation is subject to certain limitations (S.53).

*Nature of restriction*

These obligations are potentially restrictive in that they mandate these businesses to supply particular services that the businesses may or may not have chosen to do themselves. To the extent that the costs of meeting these obligations can not be recovered by the retail entities they may be disadvantaged vis-à-vis competitors.

*Objective of restriction*

There are a number of objectives underlying these obligations to supply. Perhaps most fundamentally the obligation to supply reflects the view that:

“As the supply of electricity is considered an essential service in a modern society, the Bill places on persons who are given the right to supply electricity in specified areas of the State an obligation to supply<sup>17</sup>.”

A key purpose of the provisions is to ensure that the monopoly provider supplies customers who have no alternative supplier of electricity. In this sense, the obligation to supply goes hand-in-hand with the monopoly over distribution provided through the authority system to the two distribution entities and the monopoly over non-contestable customers of their retail subsidiaries. Together with regulation of prices and terms and conditions, the obligation to supply seeks to protect customers supplied by a monopoly from potential abuse of market power.

In addition, the obligation on transmission and distribution entities to provide connection and use of the network extends beyond final consumers to other industry participants (e.g. other retail entities who may wish to use the distribution entity’s system to supply contestable customers). In this case the purpose of the obligation is to support competition in the retail and generation sectors of the industry.

Clearly, the obligations to connect, supply and to sell represent key elements in the Act’s objective of establishing the “framework for all electricity industry participants that promotes efficient, economical and environmentally sound electricity supply and use”.

*Assessment of implications for competition*

While the various obligations to connect, supply and sell could be viewed in isolation as restrictive, in the broader context of the electricity industry reforms they clearly promote competitive outcomes through:

- helping to protect customers from potential abuses of monopoly power; and

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<sup>17</sup> Electricity Bill 1994, Explanatory Notes, p.4.

- allowing access to monopoly transmission and distribution networks necessary to enable competition in the generation and retail supply sectors of the industry.

The risk that these obligations may adversely affect the commercial and competitive position of the entities is recognised in the legislation in several ways. Firstly, the obligations are to be on “fair and reasonable terms”. Second, as stated in the relevant Explanatory Notes when the legislation was introduced, “in remote areas, where the cost of connection is prohibitively high for most potential customers, the Government may choose to provide a connection subsidy through Community Service Obligation payments”.

#### *Assessment of costs and benefits*

We consider that the obligations to supply, connect, and sell are clearly in the public interest given the monopoly supply arrangements characterising the supply of these services.

Consumers of electricity benefit by being assured of the supply and sale of electricity. They also benefit from more competitive wholesale and retail electricity markets than may otherwise exist if incumbent transmission or distribution entities were able to unreasonably refuse connection or supply to other electricity entities.

Electricity entities dependent on connection or supply to other networks to compete in the market – including new entrants - also benefit from the existence of these obligations. At the same time, however, the obligations protect the interests of those entities which are obliged to provide access.

We note, however, that the extension of full retail competition would reduce, but not remove completely, the need for the obligation to sell.

#### *Alternatives*

Because these provisions were not found to constitute restrictions on competition, no alternatives were considered.

### **Retailer of last resort scheme**

Section 131A of the Act establishes a ‘retailer of last resort’ scheme, and provides for the compulsory participation by electricity entities in the scheme. The retailer of last resort scheme is currently being finalised by the Office of Energy. We understand, however, that the scheme will define enforceable arrangements (including terms and conditions) for the transfer of customers to another retailer in the event of an unplanned exit from the market by a retailer.

#### *Nature of restriction*

In theory, a potential restriction on competition may exist from the compulsory nature of participation in the scheme and from the managed

nature of dealing with the default of a retailer rather than leaving these arrangements to the market.

*Objective of restriction*

The primary objectives of the retailer of last resort scheme are to provide for the consequences of a retail entity not being able to provide customer retail services to its customers and the protection of customers of a defaulting retail entity from interruption and the supply and sale of electricity to them. The aim is to ensure orderly transfer of customers to a new retailer in the event of an unplanned exit by a retailer, so that they receive a continuous supply of electricity. The development of the scheme is designed to have clearly defined and understood arrangements in place rather than relying on existing powers under legislation to deal with any situation of retailer default as it arises. The retailer of last resort scheme can be seen as consistent with the broad objective of ensuring the safe, secure, efficient and economic supply of electricity to customers on fair and reasonable terms.

*Assessment of implications for competition*

We consider that any impacts on competition are likely to be minimal. Such schemes are designed to deal with emergency situations and putting in place arrangements to ensure that customers are not adversely affected by their retailer no longer being able to sell electricity to them. These transitional arrangements should not, however, materially affect competition for the longer term business of these customers by remaining retailers. Indeed, the existence of such a safety net should provide greater confidence to customers to actively participate in a competitive retail market.

*Assessment of costs and benefits*

ACIL considers the development of a retailer of last resort scheme to be a sensible customer protection safeguard, particularly in the early stages of extending retail competition in the electricity market. It provides a clear benefit to customers in the event of an unplanned exit by a retailer. While it imposes some compliance costs on retail entities, retailers (particularly new entrants) also benefit to the extent that the existence of the scheme promotes greater consumer confidence in participating actively in the market. We note that similar schemes have been established in other States.

**Making of emergency rationing orders**

Section 124 of the Act allows the Treasurer to make an order to ration the use of electricity in any way deemed necessary in an emergency. This applies where an electricity entity cannot supply the electricity needed by its customers and the Treasurer is satisfied that a rationing order is necessary to enable continued supply of electricity to the level of

available supply. Except in extraordinary circumstances, the order must be made by gazette notice and outline the nature of the emergency.

*Nature of restriction*

In an unregulated market, shortages of supply will result in price increases, with this being the principal mechanism to ration available supply. Other factors, such as the relationship between the supplier and customer may also be important.

Notwithstanding that these provisions are intended to be used only in extenuating circumstances, the ability for the Minister to impose emergency rationing orders represents a potential restriction on competition by subsuming these market decisions. For example, emergency rationing is likely to discriminate between different categories of users, thus impacting on competition between users for access to electricity supply.

Even the prospect of such intervention may impact upon commercial outcomes in the market by blunting the incentive for customers and suppliers to enter into commercial arrangements in advance to cover shortage situations (e.g. interruptible supply contracts). An emergency rationing order explicitly overrides any agreement between an electricity supplier and a customer.

*Objective of restriction*

These restrictions are designed to protect the interests of various customers in situations when there is insufficient supply of electricity to meet all demand, by ensuring that the supply of electricity is maintained according to need rather than simply ability to pay. It is seen to be in the public interest that hospitals, nursing homes, and low-income consumers or those with special needs continue to be supplied in times of shortage regardless of their ability to pay. The restriction therefore contributes to achieving the broad objective of ensuring the safe, secure, efficient and economic supply of electricity to customers on fair and reasonable terms.

*Assessment of implications for competition*

While the potential for the Government to invoke rationing could in-principle restrict competition, it is difficult to assess the extent of any such impact. What can be said, however, is that the less certainty there is about how and when such interventions will occur, the greater will be the impact on competition.

In this regard, it is important to note that since the commencement of the NEM, Queensland is a participant to the NEM Memorandum of Understanding on the Use of Emergency Powers (the MOU). The MOU is based on the principle that the NEM, under NEMMCO's management, should be given the opportunity to respond to and correct any electricity supply deficiencies before intervention by a particular jurisdiction. Under the MOU, a jurisdiction which is considering exercising an emergency

power (e.g. issuing an emergency rationing order) must first inform NEMMCO and all other participating jurisdictions of that intent and take account of any advice from NEMMCO and the other jurisdictions. An associated Protocol sets out in detail the procedures that a jurisdiction should follow when invoking emergency powers.

*Assessment of costs and benefits*

The key benefit of the provision is the ability to manage emergence situations in order to protect the interests of potentially vulnerable customers and the broader social and economic interests of the community (e.g. public safety).

The potential costs associated with intervening in the market are minimised through the various protocols on the exercise of these emergency powers.

In our judgement, public interest benefits will inevitably justify an ability for the Government to intervene in emergency or similar situations.

*Alternative ways of achieving the objectives*

Because these provisions were not found to constitute restrictions on competition, no alternatives were considered.

### **Electricity restriction regulations**

Section 122 of the Act allows the issue of a regulation to restrict the use of electricity to ensure there is a regular, economically efficient and constant supply of electricity within the capacity of the transmission grid or supply network. Such regulations could, for example, regulate which customers may receive electricity, the purposes for which electricity supplied may be used, or the electrical articles that may be used.

Part 4 of the Regulation outlines restriction arrangements to apply in the Ergon Energy distribution area under Section 122. This regulation prohibits the use of certain electrical articles such as electric motors of certain ratings, electric water heaters, and welding power sources at Mapoon and Torres Strait Islands and certain other localities where there are isolated supply systems.

*Nature of restriction*

Technically, this could be considered a restriction on competition in that it restricts the conduct of a business.

*Objective of restriction*

The purpose of the restriction is to manage the technical limitations of the supply system in certain locations. This is consistent with the objective of establishing a framework “that promotes efficient, economical and environmentally sound electricity supply and use”. It is also consistent



with the Government's priority objective of safer and more supportive communities.

*Assessment of implications for competition*

In practice it is unlikely that this provision has any tangible effect on competition.

*Assessment of costs and benefits*

The ability to manage the supply system in order to protect the supply of electricity in local areas is clearly in the public interest in those communities.

*Alternatives*

Because these provisions were not found to constitute restrictions on competition, no alternatives were considered.

### **Directions to State electricity entities**

Section 299 of the Act provides that a State electricity entity (i.e. an electricity entity that is a government owned corporation (or a subsidiary) or a government company) must comply with a direction given to it by the Ministers. Any such direction must be in writing and can only be given if the Ministers are satisfied that it will help or give effect to:

- The objects of the Act;
- The restructuring of the Queensland electricity supply industry;
- Reforms concerning the Queensland electricity supply industry; or
- To ensure a financially viable Queensland electricity supply industry.

*Nature of restriction*

A potential restriction on competition exists to the extent that a direction to a State electricity entity to do something may advantage or disadvantage that entity relative to any competitors.

*Objective of restriction*

The purpose of the provision is to enable the State to direct its own corporations within the objects of the Act. In particular, it enables the Government to ensure that a State electricity entity undertakes actions that may not be in their own commercial interests. It can therefore be seen as contributing to the broad objective of establishing a framework for all electricity participants that promotes efficient, economical and environmentally sound electricity supply and use.

*Assessment of implications for competition*

In practice the impact of this directions power on competition is likely to be minimal, given that a direction can only be made in accordance with the objects of the Act and other defined circumstances where the intent appears to be pro-competitive. In any event, a State electricity entity

remains subject to all the Queensland and NEM laws and code rules applying to participation in the industry.

*Assessment of costs and benefits*

The main benefit of the restriction is to ensure that the electricity reform process is advanced in circumstances where a State electricity industry may otherwise take actions which are in their own commercial interests but not in the overall public benefit. This should benefit electricity customers and other electricity entities participating in the industry. The ability to make Directions to State-owned entities is therefore considered appropriate and not restrictive.

*Alternatives*

Because these provisions were not found to constitute restrictions on competition, no alternatives were considered.

**Certain conditions relating to supply and sale of electricity to customers who are not contestable**

The Regulation (Chapter 4) prescribes various matters relating to electricity supply by distribution entities to customers who are not contestable including:

- Regulating the customer's use of electricity if it is interfering with the supply to other customers.
- The distribution entity must provide, install and maintain a meter or other control apparatus.
- The customer must make changes to their electricity installation if required by the distribution entity.
- The customer must provide suitable links for connecting more than one meter to an incoming supply.
- The customer must provide and maintain suitable space and facilities for placing a meter or control apparatus on their premises.
- A distribution entity may disconnect supply or install alternative metering equipment at the customer's expense if the customer does not provide safe access to read a meter and access the supplier's works.
- Various rules relating to the testing of meters.
- The owner must provide space for a substation if required by existing or likely future demand on the premises.

*Nature of restriction*

These requirements potentially restrict competition by limiting product or service innovation.

*Objective of restriction*

The objective of these regulations is to clarify the rights and obligations of the customer and the distribution entity in relation to the supply of electricity. They are intended primarily as a customer protection measure. In terms of the broad objectives of the legislation, they are clearly designed to ensure safe, secure, efficient and economic supply of electricity to customers on fair and reasonable terms.

*Assessment of implications for competition*

The conditions specify technical matters relating to connection and metering. Since distribution is not a competitive activity, these provisions do not restrict competition.

*Assessment of costs and benefits*

Complying with the various conditions imposes costs on distribution entities and customers, but the provisions can be seen to be in the public interest as they provide clarity of the rights and obligations of customers and distributors.

*Alternatives*

Because these provisions were not found to constitute restrictions on competition, no alternatives were considered.

#### **4.2.7 Allocation of licences or rights denied to non-holders**

A number of potential restrictions on competition arising from the allocation of rights or the permitting of specified activities denied to non-holders have been identified:

- Exemptions from the Act;
- Allocation of special rights to acquire land, to make easements and to be designated as a ‘Constructing authority’.

#### **Exemptions from the Act**

There are several exemptions for certain entities from complying with the Act.

The Act does not apply to the building or use of electrical installations and other works used by Queensland Rail, as part of a system of electric traction or for signalling purposes, on a railway (Section 18(3)).

Exemptions from the Act can be made by regulation (Section 20). At present, exemptions have been made for:

- Certain mines and petroleum plants for connection of generating plant not supplying to a transmission grid or supply network.
- The supply and sale of electricity for the Brisbane Airport Rail Link without requiring authorisation.

- The Regulator in relation to an application for and the issue of a distribution authority to Ergon Energy.
- The supply and sale of electricity by on-suppliers (e.g. caravan park owners) without requiring authorisation.

It is understood that the exemptions applying to Queensland Rail and the exemptions applying to certain mines and petroleum plants are safety matters that are shortly to be removed from the Electricity Act and Regulation.

*Nature of restriction*

These requirements potentially restrict competition by providing an advantage or disadvantage to an entity relative to any competitors. They also involve the use of discretionary powers that could potentially be exercised in a discriminatory way.

*Objective of restriction*

The purpose of the exemptions is to remove the need to comply with the Act — particularly the requirement to hold an appropriate authority (e.g. a transmission or distribution or retail authority)— in situations where the activities for which the legislation is intended are not being undertaken. By providing an exemption, significant compliance costs can be avoided. In this regard, the exemptions seek to further the objective of establishing a framework for all electricity participants that promotes efficient, economical and environmentally sound electricity supply and use.

*Assessment of implications for competition*

The exemptions clearly provide the potential for the entity receiving them to derive competitive advantage in the various markets in which they compete. For example, they provide Queensland Rail with an advantage not enjoyed by other rail entities with which it now competes (unless they also receive an exemption). This highlights the fact that such exemptions can unintentionally have anti-competitive effects. Moreover, the effect of such exemptions on competition can change as market conditions change.

*Assessment of costs and benefits*

The benefits of being able to provide exemptions can outweigh any anti-competitive costs provided this device is used appropriately.

*Alternative ways of achieving the objectives*

ACIL understands that there are proposals to amend these provisions.

It is understood that the safety-related exemptions under the Act for Queensland Rail are being considered in the context of the establishment of stand-alone electrical safety legislation and are to be removed from the Act.

More generally, one alternative would be to change the provision allowing exemptions to be made by regulation to require exemptions to

have sunset clauses and, possibly, to set out the circumstances in which regulations can be made. ACIL considers that this would reduce the potential anti-competitive effects of the exemptions, while avoiding potentially unnecessary compliance costs.

### **Allocation of special rights**

The Act enables the Minister to grant certain rights to particular electricity entities that are not otherwise available.

Specifically, the Minister may authorise an electricity entity to:

- Enter onto and remain on land to decide its suitability for the entity's proposed works (S.115).
- Acquire land for works, including proposed works (S. 116).
- Create an easement for the entity over forest land for the entity's works (S.116B).

In addition, S.257 & 257A of the Act automatically designate each State electricity transmission and distribution entity to be a 'constructing authority' under the *Acquisition of Land Act 1967*. This allows these entities to resume land, pursuant to the provisions of that Act. The original provision (S.257) automatically allowed transmission and distribution entities to be a construction authority but this section expires on 19 December 2002 and will be superseded by S.257A, which requires that they be declared a construction authority by regulation to the Act, rather than automatically.

#### *Nature of restriction*

These special rights potentially restrict competition by providing an advantage or disadvantage to an entity relative to any competitors in a relevant market. They also involve the use of discretionary powers that could potentially be exercised in a discriminatory way.

#### *Objective of restriction*

These provisions were included in the Act because they were seen as necessary powers to enable the development or maintenance of electricity infrastructure in certain situations.

The ability for electricity entities to be able to access and/or acquire land was justified in the original Explanatory Notes for the Act as follows:

“Because of the necessity of an electricity entity to supply electricity to the community, it must be able to enter property (including roads and other public places) and to construct, lay down and place or alter its works and to maintain and protect its works.”

Similarly:

“Electricity entities need to acquire access to land in order to provide the services under this Bill.”

The provision enabling the Minister to authorise the creation of easements over forest land was inserted into the Act to address apparent difficulties faced by Powerlink Queensland in securing land tenure for transmission lines traversing State Forest Land.

The Explanatory Notes argued that:

“Powerlink Queensland, which manages the State’s transmission grid, should have access to the widest possible range of route options for the development of extensions to the grid. The corporation has, however, experienced difficulties in securing land tenure for transmission lines traversing State forest land. These difficulties have caused problems for the development of major electricity infrastructure such as the Calvale to Tarong transmission line and the interconnection with New South Wales.”

*Assessment of implications for competition*

In considering whether the first three authorisation provisions are restrictive it is pertinent to note that:

- The Minister is required to consider the objectives of the Act when authorising an electricity entity to acquire land, but is not required to do so when authorising entry onto land or creation of easements over forest land.
- Authorisation could in principle be given to any electricity authority, regardless of ownership.

Given this, it is not considered that these authorisation provisions are anti-competitive in practice.

The provision (S.257) automatically designating State transmission and distribution entities as ‘constructing authorities’ is also potentially restrictive, as it confers a benefit not enjoyed by new transmission or distribution entities (e.g. a private sector builder of a transmission line). In this case a clear advantage is given to the government entity when building transmission or distribution lines. Private entities would be required to go through an approval process under S.116 in order to acquire the relevant powers.

However, as the existing State transmission and distribution entities have a proven track record, it may not be unreasonable to require new transmission and distribution entities to go through an approval process in order to obtain this status (bearing in mind the sensitivities associated with the acquisition of land). It is also important to note that there are avenues (e.g. Section 116 of the Act) for other distribution and transmission entities to obtain similar powers in respect of individual projects. In practice, therefore, the inability to declare an electricity entity other than a State electricity entity as a ‘constructing authority’ may have minimal impacts on competition in practice.

*Assessment of costs and benefits*

As noted above, these provisions were included in the Act because they were seen as necessary powers to enable the development or maintenance of electricity infrastructure in certain situations. To the extent that they facilitate the effective planning and development of such infrastructure projects, they provide a public benefit. They could also be seen as facilitating the Government's Priority Outcome of building regions, in relation to increasing Statewide development so that Queensland's regions prosper.

The ability to declare a State electricity entity as a "constructing authority" provides an additional benefit (to the State entities and the public) in not having to seek such status with respect to every project undertaken by the transmission and distribution entities, which could be potentially time consuming and costly. While this benefit is not available to other entities, the costs of this restriction are likely to be minimal.

*Alternatives*

One alternative would be to remove these provisions and rely entirely on other legislation (e.g. the State Development Act and the Acquisition of Land Act) to facilitate the planning and development of such projects. This however would make it more difficult to secure land tenure for electricity infrastructure projects and the loss of the benefits associated with effective management of such approval processes.

Another less restrictive approach would be to enable the status of 'constructing authority' to be bestowed on private as well as State electricity entities. There does not appear to be any reason (no obvious public benefit) why a similar status could not be given to a private sector entity engaged in the same activity, provided it was seen as appropriate for the particular entity to exercise such powers. This entity would be the holder of an authority from the Regulator that was granted after a process that explored whether they are a proper person to hold such an authority. This option may therefore be only feasible under the regulation approach envisaged under S.257A. In any event, the approach under S.257A arguably provides a stronger incentive for the existing State entities to exercise their powers appropriately. It is therefore considered that S.257 should be allowed to lapse, but that appropriate provision be made in the Act for State electricity entities to retain automatic constructing authority status (e.g. through bringing S.257A into effect or modifying S. 116).

### **4.3 Costs and benefits of the Act and Regulation: Conclusions**

The Act and Regulation are inextricably linked to the establishment of a competitive electricity market in Queensland, as part of the broader process of establishing the NEM.

ABARE has estimated that the substantial labour and capital productivity improvements arising from electricity reform in Australia had already resulted in an increase in GDP of around \$1.5 billion a year, with the potential for this to rise to around \$2.4 billion a year by 2010.<sup>18</sup>

Queensland has undoubtedly shared in many of these benefits. Real electricity prices have fallen in Queensland since the establishment of the NEM, increasing the competitiveness of industry in the State and facilitating the achievement of the Government's Priority Outcomes, particularly in relation to more jobs for Queenslanders and building Queensland's regions.

The significant benefits to Queensland from the establishment of a competitive electricity industry can at least in part be attributed to the Act and Regulation.

On the basis of its analysis to date, ACIL considers that the Act is fundamentally pro-competitive. It facilitates competition in the electricity supply industry by allowing entry into competitive segments of the industry while at the same time containing provisions to protect consumers from the exercise of monopoly power. Most of the restrictive provisions identified in this Review have been put in place to restrict the activities of market participants who have a degree of monopoly power derived from the natural monopoly nature of certain activities. That is, these restrictions generally serve to increase effective competition or to ensure competitive outcomes. In some cases, however, alternatives to achieving the objectives of particular restrictions could be adopted or considered. A summary of ACIL's assessment of the various restrictions is contained in Table 5.

The conclusions and recommendations in relation to the restrictions on competition in the Act and Regulation identified in this draft Public Benefit Test report have been reached after weighing up their costs and benefits. In many cases, this involves assessing the net public benefits taking into account the fact that there may be different impacts on different stakeholder groups. While the costs and benefits of individual restrictions are summarised in Table 5, it is also important to identify the key impacts by stakeholder group.

Consumers benefit from the licensing regime that helps to ensure an efficient and reliable electricity supply and prevents inappropriate operators from entering the industry. Those provisions aimed at ensuring effective competition (e.g. prohibited interests and obligations to connect/supply) also benefit consumers in the form of lower prices, more choice, and better services. Consumer protection mechanisms (e.g. standard customer contracts, retailer of last resort scheme etc), while

<sup>18</sup> Christopher Short, Anthony Swan, Brett Graham and Warren Mackay-Smith, ABARE, *Electricity Reform: the benefits and costs to Australia*, Outlook 2001, pp.81-90.



technically a restriction on competition, also provide benefits to electricity customers. Provisions to regulate prices and service standards over the Mt. Isa distribution network and non-contestable retail services protect customers from the scope for monopoly exploitation. However, in the case of the monopoly over non-contestable customers, there may be alternative means of protecting the interests of customers in regional areas without preventing the potential benefits of retail competition (greater choice, lower prices, better services) for smaller customers in urban areas. At present the uniform tariffs imposed through the price controls lead to cross-subsidisation of regional customers by other customers and/or taxpayers.

Existing and potential electricity entities also benefit from the legislation establishing a framework for all electricity participants that provides for the technical integrity of the network, allows entry into the market at various levels and competition in the market on a generally level playing field. The licensing regime is an important element of this framework notwithstanding that it may prevent some potential new entrants into the industry, and imposes some compliance costs on authority holders.

While the obligations to connect, supply and sell may impose some costs on the entities to which they apply, they help to establish effective competition to the benefit of all industry participants and consumers. Similarly, the restrictions on electricity entities simultaneously holding different types of authorities for different segments of the industry (e.g. transmission/retail or generation; generation/retail “with retail area”; and distribution/retail) may impose costs on those to whom it applies, but benefits others and promotes more effective competition.

For new and potential retail entrants, the legislation generally provides a framework for effective competition. However, the monopoly over non-contestable customers remaining for Energex Retail and Ergon Energy Retail prevents other retailers from competing in this significant part of the market.

The PBT process also requires consideration of a range of broader matters including the environment, employment, social welfare, and regional development, and the Government’s Priority Outcomes. Our comments on how the existing provisions contribute to the attainment of the Government’s Priority Outcomes in these areas are as follows:

- **More Jobs for Queensland – Skills and Innovation – The Smart State:** as noted above, the legislation has facilitated reforms in the Queensland electricity industry leading to improved labour and capital productivity and lower real electricity prices. As electricity is a key input into production, the improved competitiveness of industry in Queensland should lead to greater employment opportunities throughout the economy. Lower electricity prices will also stimulate investment in existing and new industries, particularly energy

intensive minerals processing. Processing industries tend to have relatively highly skilled workforces and rely on the presence of suppliers of high technology inputs. This would contribute to a more highly skilled workforce in Queensland.

- **Safer and More Supportive Communities:** the licensing framework contributes to the physical safety of electrical networks and provisions relating to management of emergencies and restriction regulations ensure protection of vulnerable individuals and public safety.
- **Community Engagement and a Better Quality of Life:** While the legislative framework contributes to the provision of reliable, efficient and environmentally sound electricity supply, the impacts of the legislation on education, health and family services are only indirect.
- **Valuing the Environment:** a number of the restrictions impact on the environment through regulating the generation and use of electricity. Most notably, the restriction that no authorities will be issued for new coal fired generation plants in Queensland, while a restriction on competition, could be seen as contributing to the achievement of environmental objectives.
- **Building Queensland's Regions:** the economic benefits noted above would be spread throughout Queensland, particularly for those regions in which energy-intensive industries are located (such as Gladstone and Townsville).

**In conclusion, ACIL considers that the overall thrust and broad elements of the regulatory framework established under the Act and Regulation (e.g. the licensing framework) provides an appropriate basis for competition in the industry, and provides a net public benefit relative to the industry arrangements applying prior to the electricity industry reforms associated with the Act.**

Table 5: Summary Assessment of Restrictions in the Electricity Act and Regulations

Restriction	Impact on competition	Assessment of costs & benefits	Conclusion/recommendation
<b>1. Legislated monopoly</b>			
Monopoly over non-contestable customers	Major – prevents competition in large part of retail market and necessitates ring-fencing to ensure effective competition for contestable customers	Domestic and other non-contestable customers prevented from receiving potential benefits from competition (lower prices, better services, greater choice etc). These need to be weighed against costs of technical systems for extending retail competition. Uniform tariff which benefits regional customers may not be sustainable in unregulated market.	May be alternative means of achieving social objectives  Queensland Government Public Benefit Test indicated benefits exceed costs. Restriction to be reviewed in 2 to 3 years.
<b>2. Restrictions on market entry (licensing)</b>			
Requirement to have relevant authority	Minor, as apply neutrally across electricity market participants	Requirement facilitates ensuring efficient & reliable supply at minimal cost to entities (and ultimately customers)	Retain
Special approvals	Minor, but may be potential if applied in discriminatory way	Benefits of addressing particular circumstances outweighs any potential costs	Retain, but make clearer statements about processes to be used
Issuing of authorities	Minor, but may be potential if applied in discriminatory way	Preconditions and processes for issuing authorities helps to achieve objectives at minimal cost	Consider whether Regulator's discretion needs to be further prescribed
Requirement to consider government policy in issuing authority	Potentially significant	Adverse impacts on competition (and ultimately prices to customers) need to be weighed against other policy objectives (e.g. environment). Benefit/cost assessment will depend on policy assessment process	Retain
Amendment of authorities	Minor, but may be potential if applied in discriminatory way		Retain
Authority Fees	Minor	Cost recovery appropriate, provided transparent and reflects efficient costs	Retain

Restriction	Impact on competition	Assessment of costs & benefits	Conclusion/recommendation
<b>3. Restrictions on market entry (prohibited interests)</b>			
Limitation on transmission authority to buy/sell electricity	Minor – may be unintended impact on unregulated interconnectors	Benefits to consumers of preventing market power outweigh costs	If objective applies only to state owned transmission entities, remove from the Act by creating new authority category or include in policy or directive.
Prohibition on holding generation and retail authority with retail area	Minor	Benefits to consumers of preventing market power outweigh costs	Retain
Prohibition on holding distribution and retail authority	Minor, reduces scope for misuse of market power	Benefits to consumers of preventing market power outweigh costs	Retain
<b>4. Price controls</b>			
Distribution pricing for Mount Isa-Cloncurry network	Minor	Necessary to protect consumers in non-contestable market segments against monopoly practices	Retain, but consider scope for greater role for QCA
Regulation of retail prices for non-contestable customers	Major - may be perception that pricing favours government-owned retailers in contestable market	Necessary to protect consumers against monopoly practices. Imposition of uniform tariff funded by CSO benefits regional customers at the expense of taxpayers.	Retain, but consider scope for greater role for QCA and/or sunset provisions for customers eligible to be contestable
<b>5. Prescribed quality or technical standards</b>			
Conditions of authorities	Minor	Conditions help to ensure economic, reliable and safe operation of system	Retain
Standard customer connection and sale contracts	Major	Necessary to protect consumers in non-contestable market segments against monopoly practices	Retain
Standards about quality of service	Minor	Necessary to protect consumers in non-contestable market segments against monopoly practices	Retain
<b>6. Restrictions on conduct of a business</b>			
Obligations to connect, supply and sell	Minor	Some compliance costs, but obligations protect customers and facilitate competition through access to networks	Retain, but note that need for obligation reduced if retail competition extended
Retailer of last resort scheme	Minor	Benefits for customers likely to outweigh costs	Retain

Restriction	Impact on competition	Assessment of costs & benefits	Conclusion/recommendation
Emergency rationing orders	Minor	Public interest objectives require ability for intervention in emergencies	Retain
Restrictions regulations	Minor	Enables management of isolated supply systems	Retain
Directions to State electricity entities	Minor, and intent pro-competitive	Enables government to pursue reforms	Retain
Certain conditions for supply and sale to non-contestable customers	Minor, as applies to monopoly providers	Benefits in customer protection likely to outweigh any compliance costs	Retain
<b>7. Allocation of licences or rights denied to non-holders</b>			
Exemptions	Minor, but may be potential if applied in discriminatory way	Benefits likely to outweigh costs, provided used appropriately	Consider safety-related exemptions in developing safety-specific Act and consider sunset provisions for remaining exemption provisions.
Allocation of special rights	Potentially significant	Benefits likely to outweigh costs, provided used appropriately	Allow expiry of automatic designation of State electricity transmission and distribution authorities as 'constructing authorities' and replacement with ability to grant by Regulation.

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## 5. Alternative ways of achieving the objectives

While we have concluded that there are net benefits from the Act and Regulation, this does not mean that benefits would not have been greater with a different approach to regulation under the Act and Regulation. The NCP requires that alternative approaches to achieving the objectives are fully considered.

The broad alternative options identified in the Public Benefit Test Plan for this review include:

- no restrictions;
- industry code of practice;
- sunset provisions;
- retention of some provisions; and
- a combination of the above.

### 5.1 No restrictions (deregulation)

This option would involve amending the Act and Regulation to remove all restrictive provisions. Under this approach, the achievement of the objectives of the Act would be left entirely to market forces.

Removal of all prescriptive regulatory control over the industry would potentially enable more participants to enter all sectors of the industry without having to obtain an authority to do so (as the licensing regime would no longer exist). This could lead to greater customer choice and lower prices. The involvement of more participants, and less restrictions on the way in which they conduct their business, could also potentially lead to more innovation and adoption of new technology.

The extent to which this would be the case is unclear as the size of the industry will ultimately be influenced by the level of demand and the number of electricity supply industry participants that that level of demand can sustain. To the extent that electricity prices would be lower, demand for electricity may be greater. However, there are both direct and indirect costs associated with the supply and use of electricity. Because the supply and use of electricity involves both private and social costs (costs imposed on others), an unregulated market may not result in lower costs of electricity provision and use compared to a market with regulations designed to address these spillovers.

Unrestricted entry could also allow the entry of unskilled or inappropriate operators in the generation, transmission or distribution sectors whose participation in the industry may put at risk the safe and reliable operation

of the electricity supply system. As noted in Chapter 3, the actions of one participant on the network can have adverse effects on others in the network. For technical reasons, their actions may raise the costs of others due to equipment failure, system disruption etc.

In addition, the removal of price controls would expose customers to the risk of monopoly pricing by those suppliers with market power, such as distribution businesses and retailers with non-contestable customers.

It is therefore considered that because of the existence of these market failures, this option would not ensure that the objectives of the legislation are met. In particular, deregulation would not provide a framework for all electricity participants that promotes efficient, economical and environmentally sound electricity supply and use.

## 5.2 Industry code of practice

This option would involve the development of an industry code of practice. This code of practice would be established by industry participants in consultation with the Regulator, and would be overseen by industry participants. Appropriate issues to be incorporated in this code, rather than the Act or Regulation, could include electricity entity authority conditions and standard customer connection and sale contract requirements.

The key difference from the current approach would be that much more responsibility for the regulation of electricity suppliers would be given to the industry itself (so-called self-regulation). Typically this involves a code of conduct with which industry participants should comply. Under a 'co-regulation' approach, law underpins standards and entry requirements, so that government in effect delegates the administration of regulation to the industry.

An advantage of self-regulation or co-regulation is that it allows those who have the best technical knowledge (i.e. the industry participants themselves) to determine appropriate standards and to take responsibility. Independence from government may also give the industry incentives to maintain standards itself and result in a more cost-effective and responsive regulatory system.

Self-regulation is however potentially open to abuse with the danger that the industry will set the rules to further their own interests rather than the interests of customers and the broader public. In particular, there is a risk that setting standards or entry requirements could be set in a way to restrict competition. It has also been argued that consumers may have less confidence in an industry self-regulatory system.

The ability of an industry to effectively self-regulate depends on the extent of cohesiveness, collective spirit and maturity of the industry. Self-

regulation may be ineffective if operators simply disregard rules or codes of conduct.

The applicability of a self-regulation or co-regulation approach is also questionable when industry participants are monopoly businesses. This makes it extremely difficult for breaches of the industry code to be subject to effective discipline. There is no scope to remove the ability of the operator to operate (through removal of an authority to do so), nor is there the ability of customers to punish transgressors by choosing to obtain their services from another supplier. Self-regulation (particularly in relation to prices and service quality) may therefore be problematic in the case of electricity transmission and distribution, and for retailers with non-contestable customers. In the case of generators and the contestable retail sector, however, self-regulation or co-regulation may be more appropriate.

Given the potentially disastrous consequences for the security and safety of electricity supply from breaches of codes of industry practice, together with the existence of monopoly power, a move to full self-regulation is not considered feasible at this stage. However, it may be feasible to move in the direction of co-regulation, particularly in the competitive sectors of the industry.

### **5.3 Sunset provisions**

This option would involve introducing sunset provisions in relevant sections of the Act and Regulation, such as those that provide certain statutory requirements. The objective would be to ensure that these provisions are reviewed regularly, remain current and are utilised for appropriate purposes only.

This option does not involve an alternative broad regulatory approach, but rather builds in to the current regulations the discipline of automatic review. This is consistent with well-established principles for effective regulation, particularly in the case of the newly-established and rapidly evolving electricity market in Australia.

### **5.4 Modification of existing arrangements**

This option would involve retaining some (or indeed most), but not all, of the identified restrictive provisions.

The previous chapter concluded that the current Electricity Act and Regulation was essentially pro-competitive and provided a net public benefit.

Consistent with this conclusion, it is considered that the essential elements of the current regulatory framework including the licensing regime and price controls are justified and represent an efficient means of



achieving the objectives of the legislation. ACIL does not therefore consider that substantial legislative change is required.

However, given that the protection of the interests of customers is clearly a key objective of the Act from examining its development and current provisions, this could be included as a specific objective in the Act.

The previous Chapter also identified a number of individual areas where the Act and/or Regulation involve restrictions on competition that may not represent the best means of achieving their objectives.

Areas where some modification to the operation or administration of the current regulatory arrangements could be made include:

- Limit further the scope for any discrimination in issuing or amending authorities (e.g. by linking more directly to objects of the Act).
- Clearer statements could be made about the processes to be used in relation to special approvals, to avoid any possible perception that these could be used in an anti-competitive way.
- Remove the limitation on transmission entities from buying and selling electricity from the Act by introducing a new category of transmission authority for unregulated interconnectors or by including in policy or directive.
- Consider providing a greater role for the independent economic regulator (the QCA) in regulation of distribution prices for the Mount Isa-Cloncurry network and in retail prices for non-contestable customers.
- Require exemptions made by regulation to have sunset clauses.

Given that many of the potential modifications are likely to relate to how the legislation operates in practice, and are therefore difficult to identify in a desk-top review, views of stakeholders on these and other potential modifications are sought.

## 5.5 Conclusion

Having considered various alternatives to the current regulatory arrangements, it is concluded that options involving significant departures from the current regulatory approach – deregulation and industry self-regulation – are not likely to achieve the objectives of the Act and Regulation. A summary assessment of the impacts of the current arrangements and alternatives on identified stakeholder groups and the community as a whole is provided in Table 6.

**ACIL therefore considers that the option involving only relatively minor variations to the current regulatory arrangements, represents the most feasible alternative to achieving the objectives of the Act and Regulation.**

Table 6: Impact Matrix

Stakeholder	Option 1 Status Quo		Option 2 Deregulation		Option 3 Self-regulation		Option 4 Modified status quo	
	Benefits	Costs	Benefits	Costs	Benefits	Costs	Benefits	Costs
	Contestable Consumers	Safe and secure supply of electricity from licensing framework  Scope for greater choice, lower prices, better services from competition  Customer protection measures	(Relatively minor) administrative & compliance costs of regulatory system	Greater customer choice and scope for lower prices, better services from more competition	Greater risk to safe and reliable operation of electricity supply  Reduced customer protection measures		May be greater risk to safe and reliable operation of electricity supply  Regulation may further industry rather than customer interests	As per Option 1
Non-contestable customers	Safe and secure supply of electricity from licensing framework  Price controls prevent monopoly pricing  Subsidies to Regional customers	Unable to access potential benefits of greater customer choice and scope for lower prices, better services from competition	Greater customer choice and scope for lower prices, better services from more competition	Greater risk to safe and reliable operation of electricity supply  Risk of monopoly pricing		May be greater risk to safe and reliable operation of electricity supply  Regulation may further industry rather than customer interests	As per Option 1 plus Review of extension of FRC may lead to benefits from competition (lower prices, better services etc) plus price regulation by QCA may lead to greater transparency and customer input	As per Option 1

Stakeholder	Option 1 Status Quo		Option 2 Deregulation		Option 3 Self-regulation		Option 4 Modified status quo	
	Benefits	Costs	Benefits	Costs	Benefits	Costs	Benefits	Costs
	Existing and potential generation entities	Framework for safe and secure connection to network	(Minor) costs of securing & holding authority	Makes new entry easier	Greater risk to safe and reliable operation of electricity supply	Greater role in setting standards		As per Option 1, plus reduced scope for discrimination in issuing or amending authorities
Existing and potential transmission authorities	Framework for safe and secure connection to network	(Minor) costs of securing & holding authority  Potential restriction from unregulated interconnectors entering generation	Makes new entry easier	Greater risk to safe and reliable operation of electricity supply	Greater role in setting standards		As per Option 1, plus removal of impediment to unregulated interconnector entering generation plus reduced scope for discrimination in issuing or amending authorities	As per Option 1
Existing and potential distribution authorities	Framework for safe and secure connection to network	(Minor) costs of securing & holding authority  Legal separation of distribution & retail activities	Makes new entry easier	Greater risk to safe & reliable operation of electricity supply  Additional metering costs etc	Greater role in setting standards		As per Option 1 plus reduced scope for discrimination in issuing or amending authorities	As per Option 1
Retailers "with a retail area"	Framework for safe & secure connection to network & competition in market  Monopoly over non-contestable customers	(Minor) costs of securing & holding authority		Greater risk to safe & reliable operation of electricity supply  Loss of monopoly over non-contestable customers  Metering costs etc	Greater role in setting standards		As per Option 1	As per Option 1

Stakeholder	Option 1 Status Quo		Option 2 Deregulation		Option 3 Self-regulation		Option 4 Modified status quo	
	Benefits	Costs	Benefits	Costs	Benefits	Costs	Benefits	Costs
	Retailers "without a retail area"	Framework for safe and secure connection to network & competition in market	(Minor) costs of securing & holding authority  Inability to compete for non-contestable customers	Makes new entry easier  Ability to compete for non-contestable customers	Greater risk to safe and reliable operation of electricity supply  Additional metering costs etc	Greater role in setting standards		As per Option 1 plus reduced scope for discrimination in issuing or amending authorities
Existing and potential Special Approval holders	Ability to supply without incurring transactions costs	(Minor) costs of securing & holding authority	Makes new entry easier	Greater risk to safe and reliable operation of electricity supply	Greater role in setting standards		As per Option 1	As per Option 1
Industry employees	More opportunities from restructured industry		May be more opportunities from more new entry	Greater risk to safe and reliable operation of electricity supply	As per Option 1	As per Option 1	As per Option 1	As per Option 1
Taxpayers		Funding of CSO payment for uniform state-wide tariff		As per Option 1 (assuming subsidies for regional customers remain)		As per Option 1 (assuming subsidies for regional customers remain)		As per Option 1 (assuming subsidies for regional customers remain)
Community as a whole	Framework for safe and secure connection to network & competition in market, leading to economic & social benefits from more efficient provision of electricity	(Relatively minor) administrative & compliance costs of regulatory system  Potential benefits of greater competition foregone	Greater customer choice and scope for lower prices, better services from more competition	Greater risk to safe and reliable operation of electricity supply  Additional metering costs etc	Regulatory system may be more cost-effective & responsive	May be greater risk to safe and reliable operation of electricity supply  Regulation may further industry rather than customer interests	As per Option 1, plus improvements in operation & administration of regulatory arrangements	As per Option 1

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## Attachment A1. Terms of Reference

### OFFICE OF ENERGY, QUEENSLAND TREASURY

#### NATIONAL COMPETITION POLICY REVIEW OF THE ELECTRICITY ACT 1994 AND THE ELECTRICITY REGULATION 1994.

<b>TERMS OF REFERENCE</b>
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### A1.1 Background

The *Electricity Act 1994* and the *Electricity Regulation 1994* (“the legislation”) contain a number of provisions which have been identified as restricting competition (the test for whether a provision restricts competition having been set in the Public Benefit Test Guidelines as published by Queensland Treasury). These provisions restrict competition by:

- providing an exclusive arrangement for the provision or marketing of a good or service;
- restricting entry to a market through licensing requirements;
- imposing price controls;
- prescribing quality or technical standards; and
- allocation licences that create rights, or permit specified activities, denied to non-holders.

Those provisions in the legislation that have been identified as anti-competitive have been grouped into a number of general categories. These categories are as follows:

- Licensing arrangements — persons who carry out the functions of electricity generation, electricity transmission, electricity distribution and electricity retail are required to hold an appropriate authority or special approval issued by the Regulator. These licensing provisions set out what a holder is entitled to do, the conditions a holder must comply with, what the Regulator must take into account in deciding whether to issue an authority / special approval, and how authorities / special approvals and conditions may be amended.
- Price control — includes fees for issuing of authorities and inspection and testing of meters, prescribes the methods of charging for the supply or sale of electricity, and establishes the maximum charge for metered supply in on-selling arrangements.

- Service quality — includes requirements for the use of meter and control apparatus, and regulations restricting the use of electricity.
- Consumer protection — requirements for distribution and retail entities to prepare standard customer contracts for the provision of services and to seek the Regulator’s approval of these contracts.
- Exemptions — provided for certain mines and petroleum plant, generating plant not supplying electricity to the grid or network, Queensland Rail, the Regulator and on-suppliers from specified sections of the Act.
- Miscellaneous — includes provisions relating to the creation of easements over forest land, Ministerial power to direct State electricity entities, the making of emergency rationing orders and declaring constructing authorities.

Upon completion of the Public Benefit Test referred to in this Terms of Reference document (“the Terms of Reference”), a recommendation will be made to the Queensland Government on the need either to retain these restrictive provisions in the legislation, or for legislative reform to be implemented.

The legislation also contains a number of electrical safety provisions, together with various provisions that establish regulatory arrangements for a competitive national electricity market. Some of the provisions in these two categories may be seen as anti-competitive.

Those electrical safety provisions which may be anti-competitive have not been included in this review, as the Electrical Safety Office within the Department of Industrial Relations is currently assessing all electrical safety provisions in the legislation, including the licensing of electrical workers and contractors, as part of a wider work practices review. NCP requirements will be considered as part of this separate review process.

Likewise, those provisions regarding the regulatory arrangements to facilitate the competitive national electricity market and which may be anti-competitive, have also been excluded from this review. These provisions have come about as a result of the Competition Principles Agreement entered into by the Council of Australian Governments in April 1995, and are in line with arrangements applying in New South Wales, Victoria, South Australian and the Australian Capital Territory. They have been developed having full regard to NCP principles.

## A1.2 Need For Review

A review of the legislation is required to be undertaken in order to meet the Queensland Government's obligations under NCP which calls for the identification of all legislation which restricts competition, and where necessary reform, by 30 June 2002. The guiding principle of NCP, as set out in Clause 5 (1) of the Competition Principles Agreement, states that

legislation should not restrict competition unless it can be demonstrated that:

- the benefits of the restriction to the community as a whole outweigh the costs; and
- the objectives of the legislation can only be achieved by restricting competition.

### A1.3 Purpose of the Review

The purpose of the review is to make recommendations to the Queensland Government as to whether the measures identified in the course of the review as restricting competition should be retained in the *Electricity Act 1994* and the *Electricity Regulation 1994*, or whether legislative reform should be implemented.

Without limiting this objective, the terms of reference for the Public Benefit Test include specific examination of those matters considered under Clause 5 (9) of the Competition Principles Agreement. These are as follows:

- Clarification of the objectives of the legislation.
- Identification of the nature of the restriction on competition.
- Analysis of the likely effect of the restriction on competition and on the economy generally.
- Assessment and balancing of the costs and benefits of the restriction.
- Consideration of alternative means for achieving the objectives, including non-legislative approaches.

In examining the above matters, the following issues are to be taken into account;

- Interstate approaches to the regulation of the electricity industry.
- Those matters specified in Clause 1 (3) of the Competition Principles Agreement.
- Any employment and social impacts.

### A1.4 Process

The Public Benefit Test will be overseen by the Office of Energy, Queensland Treasury, in conjunction with Queensland Treasury's Economic Policy Division, and will be undertaken in accordance with the Public Benefit Test guidelines published by Queensland Treasury. It is proposed that an independent external consultant will be engaged to undertake the Public Benefit Test.

## A1.5 Consultation

The Terms of Reference will be published in the media. Additionally, the independent external consultant will undertake a targeted consultation with key stakeholders and identified key groups.

The Public Benefit Test will take into account all submissions made by consumers of electricity, the electricity entities and other interested parties.



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## Attachment A2. Overview of licensing frameworks in other States

### A2.1 Introduction

The purpose of this attachment is to outline the key elements of the licensing frameworks applying to the electricity industries in several other States.

### A2.2 Victoria

The *Electricity Industry Act 2000* provides that a person must not engage in the generation of electricity for supply or sale or the transmission, distribution, supply or sale of electricity unless the person is a holder of a licence authorising that activity; or is exempted from the requirement to obtain a licence in respect of that activity.

A penalty of up to \$100,000 plus \$10,000 for each day after service of a contravention notice attaches to a breach of the prohibition.

These licences are issued and administered by the Essential Services Commission (ESC) (previously the Office of the Regulator-General (ORG)).

The Act outlines the factors that the ESC must take into account when considering an application for a licence. The ESC may grant or refuse an application for the issue of a licence for any reason it considers appropriate, having regard to its objectives set out in Section 157 of the Act. These are:

- To promote competition in the generation, supply and sale of electricity.
- To ensure the maintenance of an efficient and economic system for the generation, transmission, distribution, supply and sale of electricity.
- To protect the interests of customers with respect to electricity prices and the safety, reliability and quality of electricity supply.
- To facilitate the maintenance of a financially viable electricity supply industry.

Further, the ESC must not grant an application for the issue of a licence unless it is satisfied that:

- the applicant is financially viable; and
- the applicant has the technical capacity to comply with the conditions of the licence.

In addition, Part 13 of the Act contains cross-ownership prohibitions applying to licensees that prevent a concentration of ownership in electricity generation, transmission and distribution. The Act provides the ESC with power to enforce these provisions.

Licence applications are advertised in the press and the public invited to make submissions.

At present there are 6 distribution licences, 10 generation licences, 19 retail licences, and 3 transmission licences issued in Victoria.

Licence holders must pay the government a fee set by the Treasurer annually. For 1999-00 the fees were:

- Distribution licences - \$300,000
- Generation licences \$22,000 to \$58,000 (based on generation capacity)
- Retail licence (contestable only) \$26,000; \$55,000 (franchise)
- Trader - \$30,000
- Transmission - \$175,000.

### A2.3 New South Wales

The *Electricity Supply Act 1995* establishes the statutory basis for distributing and retailing electricity in New South Wales.

The Act empowers the Minister for Energy to issue two types of licences to companies that undertake those activities: electricity distribution network service provider (DSNP) licences and retail supplier licences.

Licences are granted subject to conditions which are intended to promote beneficial outcomes in a range of areas (e.g. effective competition, consumer protection, reduced greenhouse gas emissions, better network reliability and safety). Various guidelines issued by the Minister explain how a licensee is to comply, and demonstrate compliance, with the conditions.

In November 2000, the NSW Government transferred the responsibility for administering electricity licensing from the Ministry of Energy and Utilities to the Independent Pricing and Regulatory Tribunal (IPART). IPART's role is to make recommendations to the Minister with respect to:

- The granting, variation, transfer or cancellation of a licence.
- The imposition, variation or cancellation of conditions in relation to a licence.
- Action to be taken that may be warranted as a result of the contravention of the conditions of a licence.

IPART monitors and reports annually to the Minister for Energy on the extent to which DSNPs and retail suppliers comply, or fail to comply, with the conditions imposed on their licences. It is also responsible for the enforcement of licences. It may impose monetary and non-monetary penalties and take other action against licence holders for contraventions of licence conditions, as it considers appropriate.

In light of concerns expressed by both the Ministry for Energy and Utilities and IPART about its effectiveness, IPART has been requested by the Minister to undertake a review of the electricity (and gas) licensing regimes in NSW.

There are currently 4 DSNP licence holders and 21 retail licence holders in New South Wales.

Annual electricity licence fees range from \$5,000 to \$50,000 for DSNPs and for retail licences are a fixed fee of \$10,000 plus \$4,000 for every one per cent of market share.

## A2.4 South Australia

The *Electricity Act 1996* and regulations, together with the *Independent Industry Regulator Act 1999*, provide the basis for regulation of the electricity supply industry in South Australia.

The Act provides for a licensing regime for electricity entities undertaking generation, transmission, distribution, retail and system control operations.

Licence conditions require licensees to observe codes (e.g. Retail, Distribution, Transmission and Metering Codes) and meet standards and conditions of service and supply. The licence conditions will vary, however, depending on the type of licence and specific application.

The South Australian Independent Industry Regulator (SAIIR) issues and administers these licences. As part of ensuring compliance with licence conditions, SAIIR monitors and reports on the performance of regulated industries, including the electricity supply industry.

In performing licensing functions, the SAIIR must have regard to factors specified in its Act, including the need to:

- Promote competitive and fair market conduct.
- Prevent misuse of monopoly or market power.
- Facilitate entry into markets.
- Promote economic efficiency.
- Ensure consumers benefit from competition and efficiency.
- Protect the interests of consumers.
- Facilitate the maintenance of the financial viability of regulated entities.

Subject to the above factors, key criteria for assessment of a licence application outlined in Part 3 of the *Electricity Act 1996* include:

- Identity of the applicant and that the applicant is a suitable person to hold a licence and has the ability to operate a viable business.
- The issue of a licence will not breach cross-ownership rules.
- The issue of a licence will not result in the same person holding both a licence authorising the operation of a distribution network and a licence authorising retailing of electricity.
- In the case of a generation licence, that the generating plant will generate electricity of the appropriate quality for the relevant transmission or distribution network.
- In the case of a transmission or distribution licence, that the network has the necessary capacity for transmitting or distributing electricity safely.
- In the case of a retail licence, that the applicant will be able to meet reasonably foreseeable contractual obligation for the sale of electricity.

Information relating to a licence application will generally be available for public inspection at the SAIIR office and on their web-site. The Electricity Act also requires the Regulator to consult with the Commissioner for Consumer Affairs and the Consumer Advisory Committee in relation to the issuing of certain licences.

At present, there are 11 retail licences, 10 generation licences, one distribution licence and two transmission licences in South Australia.

Annual licence fees vary with the type of licence. Currently, the annual licence fee for contestable retailers is \$20,560, while licence fees for generators vary from \$5,140 to \$77,100 depending on plant capacity.

## A2.5 Conclusions

Despite significant differences in the industry structure of the electricity industry in NEM jurisdictions, the regulatory frameworks applying in each State are quite similar.

Each has a licensing regime whereby participants in the industry are required to meet certain technical and financial criteria before being licensed to undertake particular activities.

There are however some variations between the licensing regime in Queensland and those in other States worthy of note:

- In all other States the licensing regime is administered by an independent regulator, rather than by a departmental official.
- The licence fees in other States are significantly higher.