Regulatory Impact Statement

Council of Australian Governments Commitment to Separate Generation and Transmission

INTRODUCTION

On 10 February 2006, the Council of Australian Governments (COAG) looked at a number of competition policy issues and decided as follows:

> Decision 2.4
>
> Governments reaffirmed their commitment to implement national energy market structures that foster competition by:
> …
> (b) requesting the Ministerial Council on Energy (MCE) to develop specific recommendations under the National Electricity Law to maintain such separation of generation and transmission activities in a form that complements the provisions of the TPA that prohibit the substantial lessening of competition; [1]

Decision 2.4 is an in principle decision and does not constrain the MCE 's ability to consider and examine other policy options or to maintain the status quo. The intent of the in principle decision is to 'island' transmission networks from generators. That is:

(1) no generator should own or control transmission networks;

(2) no transmission network should own or control a generator; and

(3) no person should own or control a transmission network and a generator.

The policy requirement is not just for transparency between the operations of generation and transmission. It is for actual separation so as to promote competition and prevent anti-competitive distortion. In addition, the policy was not intended to result in any divestment of interests by State or Territory governments that have beneficial interests in the relevant assets.

The in principle decision requires new provisions, which specifically address concerns in relation to electricity generation and transmission. New provisions, different from those contained in section 50 of the *Trade Practices Act 1974* (TPA) are required to give effect to the COAG decision.

BACKGROUND

1. Energy Market Reform

In the early 1990s, governments embarked on introducing a number of reforms to the electricity sector. In August 1993, a report was prepared by the Independent Committee of Inquiry (the Hilmer Report) which made a number of recommendations to initiate reforms to a number of industries including the electricity industry.[2]

Taking on board the Hilmer Report recommendations, in 1995 all governments reached agreement on broad principles governing the national competition policy, and released the National Competition Policy (NCP) which was underpinned by three intergovernmental agreements: the Competition Principles Agreement, the Code of Conduct and Agreement to

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[1] Commonwealth of Australia, *Council of Australian Governments' Meeting 10 February 2006,* Attachment B, 10 February 2006, p.4

[2] Commonwealth of Australia, *National Competition Policy*. *Report by the Independent Committee of Inquiry*, August 1993. ('Hilmer Report')

Implement the NCP and Related Reforms.[3] These agreements committed the jurisdictions to reviewing their respective electricity supply industries, including the level of horizontal and vertical integration when introducing competition.

The focus of the reforms in the electricity industry was on removing legislative and regulatory barriers to intra-state and inter-state trade. The reforms involved structural reform of the market – in terms of market operation, the restructuring of state-owned monopolies and the creation of third party access regimes.

Prior to the NCP agreements signed and agreed to by all Australian States and Territories, electricity business structure varied. Traditionally, the electricity sector had been fragmented with each State and Territory operating vertically integrated government monopolies with little interconnection between the electricity grid. This led to an inefficient use of resources and high prices for some users.

In Victoria, South Australia and Tasmania, the four functional areas of the electricity supply industry were carried out within a single, vertically integrated monopoly business. In other states, such as Queensland and New South Wales, generation and transmission were contained within a single monopoly business, each with a monopoly franchise covering a specified geographic area within the State.

Restructuring of the electricity industry has principally involved the separation of transmission, distribution and system operation activities from generation and retail. Since the time of vertical and horizontal disaggregation of the electricity industry in the early to mid 1990s, various proposals to re-integrate sectors of the electricity industry have developed.

As various proposals to reintegrate the energy sector developed, issues surrounding whether additional safe guards in addition to the general merger provisions contained within the TPA were raised within the context of the electricity industry.

The issue of changes to the current regulatory framework for energy mergers was first raised in the COAG Energy Market Review (the 'Parer Review'). Its focus was in relation to electricity mergers. The Parer Review found deficiencies with the current market, noting that a number of reforms could be pursued to improve the operation of the National Electricity Market.

In addition, in response to the Productivity Commission's (PC) review of National Competition Policy (NCP Review), some parties, including the Australian Competition and Consumer Commissioner outlined its concerns over proposals to re-integrate contestable electricity assets with network businesses as well as re-integration of contestable elements of the electricity supply chain. These parties encourage the PC to consider whether policy makers might consider alternative policy options, in the form of industry specific, National Electricity Market wide provisions. It was submitted that such provisions could act as an additional competition safeguard, in addition to the current competition laws to ensure that the benefits of reforms achieved do not erode over time.

The PC Report *Review of National Competition Reforms* (2005) considered these issues as part of its review. It recommended a review of cross-ownership of transmission and generation assets in the electricity industry. It specifically recommended that:

> An independent national review should be initiated by the Australian Government, in consultation with State and Territory governments, into the competition implications of cross-ownership of transmission and generation assets in the electricity industry. This review should consider the adequacy of the current

[3] See National Competition Council, *Compendium of National Competition Policy Agreements*, Second Edition, June 1998.

> regulatory regime impacting on such integration, including the access, prices oversight and merger provisions of the Trade Practice Act 1974. It should also consider the need for new legislated cross-ownership restrictions proscribing some forms of integration that involve the transmission network**.** [4]

Energy Reform Implementation Group (ERIG)

On 10 February 2006, the Council of Australian Governments (COAG) agreed to establish the Energy Reform Implementation Group (ERIG) to recommend proposals for:

- Achieving a fully national transmission grid;
- Measures that may be necessary to address structural issues affecting the ongoing competitiveness and efficiency of the electricity sector; and
- Measures that may be necessary to ensuring there are transparent and effective financial markets to support energy markets

On 12 January 2007, ERIG delivered its report to COAG and stated that:

> Australia's energy markets are world-leading. However, ERIG concludes further reforms would deliver more economic benefits. More market contestability, improved transmission planning and regulation, and facilitating efficient financial markets, are priority reform areas.[5]

2. The National Electricity Market

Overview of the National Electricity Market
The National Electricity Market (NEM) is a wholesale market for the supply of electricity to retailers and end-users in Queensland, NSW, the ACT, Victoria, SA and Tasmania which began operating in December 1998.

Operations are currently based in six interconnected regions, largely following state boundaries. Up to $7 billion in electricity is traded annually to meet demand from almost eight million customers. The market is comprised of generators, customers (retailers or end-use consumers) and network service providers (transmission and distribution). There are also other participants, such as traders. Since the commencement of the NEM, electricity customers have progressively gained the right to choose their own supplier.

The operation of the NEM relies on the forecast of expected demand for electricity. Demand varies from state to state, depending on factors like population, temperature and industrial and commercial needs for power in that state or territory. Demand also varies throughout the day. Price is determined by a designated region reference node where the spot price of electricity for that region is set. High-voltage transmission lines (inter-connectors) connect and transport power between adjacent electricity regions to low voltage distribution lines, the distribution lines then deliver power to end users.

The National Electricity Market Management Company (NEMMCO) administers and manages the operation of the NEM. Its role is to develop the market and improve the operation of the power system, while also maintaining the security and reliability of the market.

An important feature of the NEM is the clear separation of the physical and financial aspects of the market. While the physical market is a common pool, or spot market for trading wholesale electricity, the financial market enables contracts between market participants.

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[4] Productivity Commission, *Review of National Competition reforms*, 28 February 2005, p.192.
[5] COAG, *Energy Reform – The Way Forward for Australia, A Report by the COAG by the Energy Reform Implementation Group*, January 2007, p1

- Physical Market

All electricity produced by market generators must be traded through the pool. A single, central dispatch process determines a merit order for the dispatch of generation (with the lowest priced generator dispatched first, subject to system and other operating constraints) based on a five-minute dispatch cycle and half-hourly trading intervals to balance supply and demand and system security. Electricity is traded through a pool because it cannot be stored for future use, so supply varies according to demand. The National Electricity Rules (NER), which provides procedures and processes for market operation (discussed further below), set a maximum spot price of $10,000 per megawatt hour, referred to as the Value of Lost Load (VoLL).

- Financial Market

There is risk, caused by volatility on the spot market, especially for retailers who on-sell at fixed prices to consumers and purchase from the spot market, which can vary from $30-40 per megawatt hour[6] to as high as $10,000 per megawatt hour (VoLL). Market participants may reduce this risk by entering into long and short-term wholesale bilateral contracts. These may be traded Over-the-Counter (OTC) between counter parties or through brokers, or by using exchange-traded instruments. While contracts provide a hedging facility, they do not carry with them any rights to the physical supply of electricity.

3. Electricity legislative instruments – Law and Rules

This section provides an overview of the legislative instruments relevant to the operation and regulation of the electricity market.

The National Electricity Law (NEL) and National Electricity Rules (NER) govern the operation and regulation of the NEM. The NEL sets out the general framework for the regulation and operation of the NEM and provides statutory power to the Australian Energy Regulator (AER) and the Australian Energy Market Commission (AEMC) to carry out their NEM functions. NEMMCO's functions are also prescribed in the NEL.[7]

The NER provide procedures and processes for market operations, power system security, network connection and access, and pricing for network services in the NEM. The NEL sets out a procedure for the review and amendments of rule change proposals. Rule change proposals put forward by market participants are consider by the AEMC in accordance with the principles and procedure outlined in the NEL.

The AEMC and AER were established in 2005. The AEMC is responsible for energy market rule-making and market development at the national level. The AER has responsibility for the enforcement of and monitoring compliance with the NEL and NER, as well as responsibility for economic regulation of networks.

Currently, the NEL and NER do not impose restrictions on the aggregation of segments of the electricity industry. The ring-fencing provisions contained in Chapter 6A and 6 in the NER allow the AER to impose legal separation requirements on network service providers. The

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[6] www.nemmco.com.au

[7] Under the NEL and the Rules, the "national electricity market" means:

- The wholesale exchange operated and administered by NEMMCO under the Law and the Rules;
- The generating systems and other facilities connected to the interconnected transmission and distribution system; and
- The interconnected transmission and distribution system in the participating jurisdictions, used to convey, and control the conveyance of, electricity that connects:
    - generating systems and other facilities; and
    - loads settled through the wholesale exchange.

electricity ring fencing provisions are currently being considered by the MCE as part of its non-economic distribution and retail package, which will look to transfer these function from state based regimes to the national framework.

4. Other relevant legislation

This section considers other legislation relevant to integration of segments of the electricity industry.

Trade Practices Act 1974
The TPA contains a regime for regulating mergers. Section 50 of the TPA provides for generic provisions which prevent mergers or acquisitions from proceeding if the merger or acquisition is likely to result in a substantial lessening of competition in a market. Specifically, Section 50 states:

> 50 Prohibition of acquisitions that would result in a substantial lessening of competition
> (1) A corporation must not directly or indirectly:
> (a) acquire shares in the capital of a body corporate; or
> (b) acquire any assets of a person;
> if the acquisition would have the effect, or be likely to have the effect, of substantially lessening competition in the market.

Section 50 is directed at preventing anti-competitive acquisitions, but a company can expand to a dominant position without triggering the provision. For instance, a transmission company could build generation assets without raising issues under section 50.

The Australian Competition and Consumer Commission (ACCC) is responsible for the administration of the TPA, including the assessment and consideration of mergers and acquisitions against section 50 of the TPA. These provisions are applicable across all Australian industries including the energy sector.

Other Australian legislative schemes – cross –ownership

There are a number of legislative schemes which place specific restrictions on ownership:

- Part 5 and Schedule 1 of the *Broadcasting Services Act 1992* (Cth) (the Broadcasting Services Act). In very general terms this provides that a person who has interests exceeding 15% in a company is regarded as being in a position to control the company. This regime also has very sophisticated tracing provisions to deal with control through a chain of companies;
- Part 3 of the *Electricity Act 2000* (Vic) (the Vic Act) which provides for separation of electricity generation, transmission and distribution sectors. Victoria has recognised potential competition concerns regarding the ownership of both generation and transmission assets within the Vic Act; and
- Part 3 of the *Airports Act 1996* (Cth). This has provisions prohibiting particular interests of 49%, 15% and 5%.

These schemes use a range of mechanisms to restrict ownership and control of relevant entities. It should be noted that specific industry cross-ownership restrictions in operation in Australia, i.e relating to Airport Act and Broadcasting Act, are in addition to the TPA and are dealt with in industry specific legislation rather than amendments to section 50 of the TPA.

It should also be noted that the current Victorian cross-ownership rules provide restrictions on the extent to which businesses in the electricity or gas sectors can own a business in another functional area within that sector's supply chain. In the electricity sector, the Vic Act prohibits the holding of certain interests in Victorian electricity transmission, distribution or generation licensees in Victoria. The provisions are drafted in such a way as to ensure that transmission, generation or distribution licensees may not hold a controlling interest (i.e., more than twenty percent) in any other transmission, generation or distribution licensees. They are also prohibited from holding a substantial interest (i.e., more than five percent) in two or more licensees. Distribution licensees are precluded from controlling more than 200MW of generation capacity.

In 2005, the Department of Industry (Vic) released a discussion paper seeking stakeholder views on the necessity of aspects of the Victorian cross-ownership restrictions. This review has not yet been finalised.

New Zealand Electricity Industry Reform Act

The New Zealand *Electricity Industry Reform Act 1998* (the NZ Act) provides for separation between 'an electricity lines business' and an 'electricity supply business', generally limiting ownership of both to 20%. Cross-ownership restrictions also exist in NZ. The NZ Act was enacted by the New Zealand Parliament on 3 July 1998. The NZ Act prohibits the cross-ownership of or involvement in both an electricity lines business and an electricity supply business.

Section 81 of the NZ Act has a general exemption power conferred on the Commerce Commission. In considering the exemption application, the Commerce Commission is to consider whether the exemption would:

- Create incentives or opportunities to inhibit competition in the electricity industry;
- Create incentives or opportunities to cross-subsidise generation activities from electricity lines businesses; and/or
- Permit a relationship between an electricity lines business and an electricity supply business which is not at arm's length.

This RIS does not extensively consider other overseas markets (other than NZ); mainly due to the fact that Australia's NEM is considered to be very unique with regard to its characteristics and design. The International Energy Agency (IEA) has recognised the advanced standing of the NEM as a competitive market and a model for other countries to consider[8]. It is against this background of competition that separation of generation and transmission ownership is being considered.

[8] International Energy Agency, *Energy Policies of IEA countries Australia Review 2005*, 2005, p. 11.

PROBLEM

When the owner of essential infrastructure also competes in a competitive segment it typically has the ability and the economic incentive to restrict the level of competition in the competitive segment. It has the ability to restrict competition by restricting access to the essential facility – by raising price, lowering the quality or reducing the timeliness of the essential service it provides, relative to the services the regulated firm provides to its own affiliate, limiting access by constraining the generator. It has the incentive to restrict competition when the natural monopoly facility is tightly regulated, but the competitive activity is not. In this instance, the owner of the natural monopoly has a strong incentive to provide the competitive activity itself, restrict competition in this activity, thereby capturing some of the monopoly rents that it would otherwise lose to regulation.

On this issue of aggregation, the US Federal Trade Commission noted:

> A monopolist whose rate of return is regulated has an incentive to evade the regulatory constraint in order to earn a higher profit. Its participation in an unregulated market may give it the means to do so, either by discriminating against its competitors in the unregulated market or by shifting costs between the regulated and unregulated markets.
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> The discrimination strategy involves complementary products. The monopolist controls others' access to its regulated product in ways that permit it to earn supra competitive returns in its own operations involving the unregulated complement. Discrimination could appear as a subtle reduction in quality of service, whose effects would be more difficult to identify and measure than outright denial of access. An integrated transmission monopolist might afford other generation sources access to its transmission services only on terms that raise others' costs and permit the monopolist to make supra competitive profits in the generation market. [9]

Regulators can and do try to prevent the owner of the essential facility from acting in this way. However, the firm can use all tools at its disposal, be they legal, technical or economic, to prevent, delay, lower the quality of, or raise the price of access.

A report for the ACCC by Frontier Economics, *Assessing Generation – Transmission Mergers in the NEM* noted on this issue that:

> Vertically integrated transmission providers have found numerous ways to delay or prevent entry of competitors, some within the existing rules, and some by exceeding reasonable discretion afforded to the transmission provider. All of these are difficult to monitor or prevent with behavioural rules.[10]

Frontier Economics also discussed the number of ways that the owner of both transmission and generation activities could increase its profits by assisting its generation activities. These include:

> **Refuse/cut/degrade connection -** a vertically integrated entity can foreclose rival generators' access to the wholesale market by restricting rivals' access to the transmission network. This may fall short of complete denial of access. For example, the transmission operator may delay or stall new connection applications or time maintenance of connection assets to align with peak demand events. This would tend to raise wholesale prices and boost the profits of the integrated firm. Such incentives are often strong in electricity markets because of the low elasticity of demand for electricity, which means that even a small reduction in available supply could lead to a very large increase in wholesale prices.

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[9] Federal Trade Commission, *Comments of Staff of the Bureau of Economics of the Federal Trade Commission , In the Matter of Promoting Wholesale Competition Through Open Access Non-discriminatory Transmission Services by Public Utilities, Recovery of Stranded Costs by public Utilities and Transmission Utilities; Proposed Rulemaking and Supplemental Notice of Proposed Rulemaking*, 1995, Docket Nos. RM95-8-000 & RM94-7-001

[10] Frontier Economics, *Assessing generation – transmission mergers in the NEM Report prepared for the Australian Competition and consumer Commission*, August 2004, p22.

> **Downgrade/reduce transportation -** the transmission operator may reduce the overall quantity or quality of the transmission service, thus restricting overall supply to the market. Depending on the allocation of responsibilities between the transmission entity and the system operator, a transmission operator may be able to downgrade the transfer capacity of an existing transmission line. The rationale for such action would be similar to that for refusing a connection or disconnecting a generator – to reduce supply and increase prices. Even if the dispatch of the transmission entity's generation interests were affected by the downgrade, the integrated entity could increase its combined profits.
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> **Share commercially sensitive information -** to the extent that a transmission operator had access to private information about a competing generator, this could be provided to the transmission entity's portfolio generator to aid its bidding strategies in the wholesale market and in settlement residues auctions. This would only be an issue if the information did not enter the public domain until it was too late for other market participants to respond in a similar manner. [11]

In April 2005, the ACCC provided a submission to the Victorian Department of Infrastructure's consultation paper regarding *Cross-ownership Rules for the Energy Sector*. The ACCC stated:

> A competitive electricity market requires the separation of natural monopoly elements from potentially competitive areas. Generation-transmission mergers therefore give rise to significant competition concerns. When the owner of essential infrastructure also participates in a contestable market it typically has the ability and the economic incentive to restrict the level of competition in the contestable market in ways that are difficult to prevent or monitor.
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> Such mergers involve the reintegration of contestable and monopoly network elements, and are a reversal of the reforms agreed to by COAG and supported by the Industry Commission Review in the early 1990s.[12]

The ACCC also noted the importance of Industry specific legislation:

> The ACCC considers that an industry-specific policy is necessary for generation and transmission re-integration to ensure that the benefits of increased competition in the electricity market are maintained. To ensure consistency and a national consistent approach to regulations and reforms, industry specific policy should take the form of NEM wide provisions (for example in the National Electricity Laws or Rules) to complement section 50 of the TPA..[13]

The ACCC also discussed the potential methods of stifling competition through ownership of both generation and transmission:

- imposing terms for access (restricting access to the transmission network by delaying or degrading connections);
- investment and maintenance decisions (restricting the quantity and quality of the transmission service provided or pursuing improvements in the network performance for its affiliated interests);
- sharing commercially sensitive information regarding competing generators with its affiliate generator or retailer;
- line rating decisions; and
- negotiation and processing of connection agreements.[14]

In addition, the ERIG report noted:

> At its meeting on 10 February 2006, COAG decided to enforce legislatively the separation of generation and transmission. Separation has been a universal approach to electricity reform adopted by governments around the world in order to facilitate generation competition. Electricity transmission assets are, by definition, natural monopoly assets. Owners of transmission assets also owning generation assets could have an incentive and ability to restrict access or discriminate against competitors. ERIG notes that the

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[11] Frontier Economics, p17.
[12] ACCC *Cross-ownership Rules for the Energy Sector*, April 2005, p10.
[13] ACCC, p10
[14] ACCC, p11-12.

> ACCC has expressed concern about the adequacy of the TPA to protect against the likely anti-competitive outcomes to which these vertical mergers may give rise.[15]

During consultation, stakeholders did not disagree with ERIG's stance on this issue.

The Integration Efficiencies Argument

In the Productivity Commission's *Review of National Competition Policy reforms*, Charles River Associates state that:

> A presumption in favour of structural separation could lead to the loss of important integration efficiencies. In many cases, this could significantly increase costs and reduce a firm's ability to innovate. [16]

However, there appears to be limited benefits in this regard. Benefits that could be expected are efficiency gains in removing the duplication of management and control facilities. These benefits cannot be expected to outweigh the risks associated with anti-competitive behaviour. Given the potential market-wide impact of such behaviour, it would be imprudent to assume that the cost-benefits associated with integration efficiencies will outweigh those associated with that impact. Further, the assumption that integration efficiencies are passed onto end-users is underpinned by the belief that there is sufficient competition in the market to encourage pass-through. It would be imprudent to adopt this belief and yet ignore the risk associated with the potential for anti-competitive behaviour.

Reliance on the TPA

Section 50

Section 50 of the TPA provides a generic provision which prevents mergers proceeding if it is likely to result in a substantial lessening of competition. However, relying on these provisions to ensure the separation of generation and transmission may be problematic.

If a merger involving natural transmission monopolies and contestable activities such as generation allows a regulated network entity to discriminate in favour of its upstream or downstream business, it is unlikely to be fully captured in the substantial lessening of the competition test in section 50. This is further evidenced by the discussion under the headings *access, conduct* and *pricing* below.

A number of key points should to be made about section 50:

- It sets out a very general test, namely whether an acquisition will have the effect of substantially lessening competition in a market;
- It is clearly based on key competition principles; and
- It is very difficult to determine whether an acquisition breaches this general test, and in the end a judicial determination after extensive analysis will be required to do so.

As noted earlier, section 50 is directed at preventing anti-competitive acquisitions. This means that a company can expand its operation via construction of assets and not trigger the provision.

Access to services and reliance on the National Electricity Rules

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[15] COAG, *Energy Reform – The Way Forward for Australia, A Report by the COAG by the Energy Reform Implementation Group*, January 2007, p 127

[16] *Review of National Competition Policy Reforms* Productivity Commission Inquiry Report No. 33 28 February 2005.

The TPA is part of the overall regulatory framework given that an entity will still be subject to the access provisions of the NEL and NER. Part IIIA of the TPA (the access regime provisions) provides a national system to facilitate third party access to facilities of national significance such as electricity grids.

Prior to the commencement of the NEL and NER, the National Electricity Code operated as an industry access code, as approved by the ACCC (this included all provisions of the Code except Chapter 3). Under the National Electricity Code, Network Service Providers (NSP) were required to submit access undertakings to the ACCC. These requirements have been removed from the NER given the move to a certification regime under the TPA.

In general, the protection afforded by the NER, to potential new generation assets seeking access to the network, as well as existing generation seeking upgraded access, does not provide sufficient safeguards to deal with generation/transmission integration issues. Clause 5.4A of the NER delivers only basic protection in the negotiation of connection agreements, asserting that they be negotiated in 'good faith' and that the TNSP should 'use reasonable endeavours to provide the generator access being sought".[17] In addition, the regulatory regime in Chapter 6A of the NER is not designed to deal with structural issues but monopoly rent.

Further, market power issues do not merely concern access negotiations among market participants. Other market power issues relate to the operational decisions of market participants. This is not a fault in the NER. The NER provide for a complex relationship between generation and transmission that promotes competition in the NEM for the benefit of consumers. Changing these arrangements, to address potential anti-competitive behaviour from integrated entities:

- Would require excessive prescription in the NER or excessive regulation of participant behaviour;
- Would require fundamental change to the manner in which generators (as integrated entities) participate and compete under the NEM's economic framework; and
- Is unlikely to effectively manage the numerous strategies that integrated entities could employ to reduce competitor access to markets.

To illustrate this further, the location and capacity of both generation and transmission in the NEM underpins competition. Amongst other factors, competition outcomes are dependent on the output of a generator relative to their location in the transmission network and:

- The capacity of the transmission network between the points of production and consumption; and
- The location of pricing boundaries (regional boundaries) along the network between the points of production and consumption.

Generators that choose to locate at particular points in the transmission network will consider the location of competing generators and the capacity of the network relative to consumer markets. Further, the upgrading of transmission lines, to bring new generation to consumer markets, occurs at numerous locations between the points of production and consumption, can involve upgrades to other (more remote) network elements to maintain the power balance across the national grid, and intersects with infrastructure development relating to the activity of other market participants. This on-going activity (meaning the long term development and operation of transmission networks) directly impacts on competition between generators. Likewise, the decisions of generators to locate at particular points in the network will impact on network development requirements.

[17] AEMC, p.251.

These complex inter-relationships provide opportunities for integrated entities to exert market power. An integrated entity can limit access of competing generators to its network (using such methods as those outlined by Frontier Economics above). An integrated entity can also build/purchase/upgrade generation facilities that impact on elements of its network used by competing generators, so as to disadvantage those generators.

The complexity of this generation/transmission balance, and the constant evolution of that balance, means that access undertakings/arrangements are difficult to monitor and enforce. Likewise, the potential for anti-competitive behaviour, following a generation/transmission merger, is difficult to assess under Section 50 of the TPA. A prohibition on such mergers is a much simpler and less intrusive way of dealing with this threat.

Conduct

For the reasons just outlined (concerning access provisions), the establishment of anti-competitive conduct (under Part IV of the TPA) is difficult. Whilst Part IV provides an avenue for complaint by disadvantaged participants, the complex technical nature of electricity markets means that anti-competitive behaviour is again difficult to verify.

The national electricity grid is a single piece of physical infrastructure across which production and consumption occur simultaneously. Generation dispatch occurs within the limits of network availability and network limits change constantly according to generation profiles and other network operating requirements. Generators cannot always know why they have not been dispatched successfully and whether this was a consequence of the monopoly activity of integrated entities. As such, establishing a case for anti-competitive conduct is problematic.

Also, Part IV of the TPA can only be used after energy market participants have engaged in conduct that substantially lessens competition in a market. Part IV can not be used to prevent likely anti-competitive behaviour from occurring. Reliance on Part IV would mean that new investors must enter a market where monopoly power may already exist. This would likely act as a deterrent to new investment.

Pricing

Note that, with regard to electricity, Part VIIA of the TPA has not previously been used by the ACCC. The price surveillance provisions are contained in Part VIIA of the TPA. Part VIIA enables the ACCC—when the minister, or the ACCC with the approval of the minister, declares products or services— to examine prices with the aim of promoting competitive pricing whenever possible and restraining price rises in markets when competition is ineffective. Part VIIA relates to goods or services that are supplied in Australia for a price. Supply is defined broadly but explicitly covers situations where goods are sold, leased or exchanged, and where services are provided, granted or conferred. Electricity prices are not covered by these provisions. As noted above, under the NEL and NER the AER is responsible for enforcement and market monitoring of the NEM.

Electricity spot prices in the NEM are dynamic and complex in terms of cause and effect. Price trends can only be determined based on historical insight and those trends should be assessed within the context of the medium to long term investment cycle. As such, it is impractical to rely on price monitoring to address anti-competitive behaviour that may be well established by the time an effective price monitoring assessment is made.

In conclusion, reliance on the TPA (whether under section 50 or under access, conduct or pricing provisions) does not adequately address the risk of anti-competitive conduct by integrated entities due to the complexity of both electricity markets and participant behaviour in the NEM.

Reliance on NEMMCO

It is questionable that protection against anti-competitive conduct by integrated entities is afforded by NEMMCO's role in co-ordinating NEM power system security. It could be argued that a TNSP can not strategically take a line out of operation to prevent access to competing generators without drawing attention to its behaviour. However, it is unclear to what extent the process of network maintenance could be used to frustrate or prevent access and to what extent a TNSP could affect the operation of any inter-connectors to promote its generation interests in a particular region.

Also, NEMMCO's role as market operator does not extend to involvement in generation and network planning and development decisions. Beyond the day-to-day operation of transmission lines, an integrated entity can make numerous investment and operational decisions, in relation to the generation and transmission components of its business, that impact on competitors and do not involve NEMMCO.

Extent of the Problem

There is no clear historical evidence of a company engaging in anti-competitive conduct through its ownership of both generation and transmission assets. However, it must be stressed that the concern is an emerging risk. The NEM is a young market and interconnectivity between participating pricing regions and national competition has been increasing as the market matures. The current energy market reform process is pursuing competition objectives and vertical integration becomes a strategic business option as competition develops. There is real risk that participants will in future look to vertically expand their operations across generation and transmission to the extent that they have a substantial degree of market power. It is prudent to reduce this risk.

Beyond the actual exercise of market power by an integrated entity, the perception that this type of activity may occur is also cause for concern. If an integrated entity can create the perception that investment in generation has become riskier due to vertical integration, the effect may be to prevent other participants from entering the market.

Power Purchase Agreements

At present there are currently two NSW companies (EnergyAustralia and Country Energy) which have been registered with NEMMCO (as at 17 November 2006) as a TNSP, DNSP and a generator.

- EnergyAustralia is registered with NEMMCO as a market non-scheduled generator, a TNSP, and a DNSP. EnergyAustralia currently purchases the output from three generation facilities, totalling 1.7 megawatts (MW).[18]

- Country Energy (through its interests in Directlink and adjoining line which have been classified transmission assets) is registered with NEMMCO as a market non-scheduled generator, non-market non-scheduled generator, a TNSP and a DNSP. Country Energy currently purchases the output from nine generation facilities totalling 132.3 MW[19].

[18] The 1.7MW is made up of the following: Mornington Waste Disposal Facility (Vic) – .77 MW and Wyndham Waste Disposal Facility (Vic) – 1 MW.

[19] The 132.3 MW is made up of the following: EarthPower Biomass Plant (NSW) – 3.9 MW; Lake Bonney Wind Farm (SA) – 80.5 MW; Lucas Heights II Stage 2 (NSW) – 4.6 MW; Rochedale Renewable Energy Facility (Qld) – 1.1 MW; Somerset Dam (Qld) – 3.2 MW; Teralba Power Station (NSW) – 8 MW; Whitwood Road Renewable Energy Facility (Qld) – 1 MW; Wonthaggi Wind Farm (Vic) – 12MW; and Wyangala (NSW) – 18 MW.

Country Energy and EnergyAustralia's principal business is not electricity transmission. Their electricity networks are mostly distribution and only a small portion of their assets are classified as transmission.

It is unclear if the generation assets owned by Country Energy and EnergyAustralia are connected to the distribution network or the transmission network. Given the small size of the generation assets, it is likely that the majority of the assets are connected to the distribution network. This type of ownership was not intended to be caught by the in-principle COAG decision. For this reason, the design of the options will be important to recognise this type of ownership.

EnergyAustralia and Country Energy are registered as generators because they purchase the entire output of the aforementioned generation facilities under Power Purchase Agreements (PPA). NEMMCO recognises that having a PPA for the total output of a generator is similar to an acquisition and market participants are registered accordingly.

PPA are largely between generators and retailers, end use customers or other generators and typically between a small or intermittent generator that does not sell its output to the spot market or pool and a retailer or an end use customer. A generator is considered small if its output is less than 30 MW, and a generator is considered intermittent if its output is unpredictable (e.g. wind generation).

It should be noted that it is uncommon for a PPA to be between a generator and transmission asset owner. This is evident given that transmission businesses transport rather than consume electricity. However, TNSPs do enter into contractual arrangements with generators to provide grid support in situations where additional system capacity is required to maintain services and system reliability standards. Although the megawatt value of this grid support is likely to be minor, it should be considered in the context of small and/or critical infrastructure elements (such as points of congestion in transmission networks) that can have a wider market impact. It is conceivable (although unlikely) that an integrated entity could provide grid support for its own network and use operational decisions (in relation to both its generation and network businesses) to hinder competitor access to that network.

This is only conceivable where the generation portfolio of the integrated business is large enough to make it an influential competitor in the NEM's gross pool (otherwise there would be no incentive for anti-competitive conduct). Smaller generation businesses that provide grid support under contract can be assumed to restrict their interest to grid support, primarily because the size of their generation portfolio does not present competition concerns.

OBJECTIVE

The 10 February 2006 in principle COAG decision recommends that the NEL be amended to maintain separation of generation and transmission activities in a form that complements the provisions of the TPA and prohibits the substantial lessening of competition. This Regulatory Impact Statement (RIS) considers the COAG decision within the context of other regulatory options to address potential anti-competitive conduct by integrated entities.

Consistent with these considerations, the objective of the regulatory action to which this RIS relates is to thereby:

- Not replicate but complement section 50 of the TPA;
- Not interfere with the ongoing application of section 50 of the TPA to the electricity market and other sectors of the Australian economy;
- Promote competition and prevent anti-competitive distortion;

- Have an appropriate enforcement regime for the administration of these provisions;
- Clear and simple provisions - this would provide certainty and clarity to market participants in the provisions' application and enforcement. This would mean that all parties are clear about their obligations and would limit the subjectiveness in its implementation; and
- While recognising the potential risk in allowing integration of generation and transmission, the objective is to ensure appropriate scope of the cross-ownership restriction to ensure there is limited impact on system security, efficient investment in generation and transmission activities, and that generator access to the market is not restricted or limited by these provisions.

On the latter point, there are generally three activities that should generally be excluded from the cross-ownership provisions:

- *Grid support contracts or arrangements* – as an alternative to network development, a TNSP can contract with a generator for network support in situations where additional transmission capacity would otherwise be required in order to meet reliability requirements. Grid support can generally take two forms:
    1. Contractual relationship with a generator; or
    2. the TNSP can build a generator for grid support purposes.

  Grid support contracts or arrangements must be at arms length to qualify for exemption/exclusion from the NEL provisions (notwithstanding other exemption provisions).
- *Connection assets* – connection assets are those components of a transmission and distribution system which are used to provide connection services. Such assets will be excluded from these provisions. Such assets provide generators access to the electricity market.
- *Funded augmentation* – Chapter 5 of the NER recognises the construction of "funded augmentations" (see clause 5.6.6B). Funded augmentations are augmentations to the network which are not subject to the revenue provisions of Chapter 6. In situations where a generator "funds" such an augmentation, it is the TNSP who would build this augmentation and the generator would pay for it. This situation is similar to a "capital contribution" rather than an ownership question. Therefore, in term of access rights to funded augmentation assets, funded capacity is provided to the market as open access capacity.

OPTIONS

Five options that have been identified include:

- **Option 1: Status Quo;**
- **Option 2: Amend section 50 of the TPA**;
- **Option 3**: **Amend the National Electricity Law – General Presumption;**
- **Option 4: Amend the National Electricity Law - 'Bright Line' MW Exemption; and**
- **Option 5: Amend the National Electricity Law - Percentage Exemption plus MW Exemption -**

A brief summary of each option is provided below.

Option 1 – Status Quo

Continue to rely on existing mechanisms.

<u>Option 2</u> – Amend Section 50 of the Trade Practices Act

This option supports amendment to Section 50 of the TPA so that there is a presumption that ownership of both generation and transmission assets represents a substantial lessening of competition. Under this option, proposed integrated entities could apply to the Regulator for an exemption to the presumption and would be responsible for providing an evidence-based case in support of the exemption. That case would face an exemption test in the following form:

> The Regulator may exempt a transmission network or generator where the relevant party has shown that there are no possible anti-competitive effects or lessening of competition from the Regulator granting the exemption.

The test should provide that a person exercises control if the person:

- Has 'company interests' in the Registered Participant who owns a generation asset;
- Has 'company interests' in the Registered participant who owns a transmission system (company interests should include beneficial entitlements to shares or an interest in shares, control of votes, beneficial entitlement to a dividend of the company or an entitlement on winding up or other circumstances. It should not be limited to companies incorporated under the Corporations Act, and should extend to any form of incorporated or unincorporated body, to trusts, partnerships and to joint ventures);
- Or has a chain of such interests, or multiple chains which amount to such interests, in companies which end with the Registered participant;
- Is in a position to appoint, or secure the appointment of, or veto the appointment of, at least half the directors of the Registered participant;
- Is in a position to exercise control over the operations of a Registered participant ; and
- This prohibition should extend to control by a person together with their associates. An associate of a company is a director or secretary of such a company, or a holding company of such a company, a subsidiary of such a company, or another subsidiary of the same holding company of such a company. Associates should also catch other partners of a partnership, other unit holders/beneficiaries/trustees of a trust, other joint venturers in a joint venture, and other such persons, employers and employees, and for natural persons a spouse, parent, child or sibling. It should catch agents of principals (and vice versa), and generally a person who acts or is accustomed to act in accordance with directions of the person.

The test will also need to contain exceptions for:

- Passive institutional investments, and for the Regulator to determine compliance with this. This exception should only operate for as long as the investment continues to be passive and institutional;
- Current direct Crown ownership; and
- Arrangements by regulations, in particular to exclude particular types of shareholding and other company interests.

<u>Option 3</u> – Amend the National Electricity Law – General Presumption

In this case, a provision would be inserted in the NEL that presumes the prohibition of ownership of both generation and transmission activities. As with option 2, the proposed integrated entity could apply to the Regulator for an exemption and would be responsible for providing an

evidence-based case in support of the exemption. Provisions regarding exercising control and exceptions to the provision would also apply under this option, as outlined under option 2.

This arrangement is comparable with New Zealand's *Electricity Industry Reform Act 1998 (*NZ Act). Section 81 of the NZ Act has a general exemption power conferred on the NZ Commerce Commission in relation to generation/transmission merger activity. In considering an exemption application, the NZ Commerce Commission is to consider whether the exemption would:

- Create incentives or opportunities to inhibit competition in the electricity industry;
- Create incentives or opportunities to cross-subsidise generation activities from electricity lines businesses; and/or
- Permit a relationship between an electricity lines business and an electricity supply business which is not at arm's length.

From a global perspective, New Zealand and Australia have unique electricity markets. Both markets are characterised by sophisticated and highly competitive gross pool arrangements[20]. In a recent report Deloitte prepared for NEMMCO regarding prudential processes in the NEM, Deloitte compared the NEM to 9 other highly developed and competitive electricity markets. In this comparison only one other market had a gross pool and that was New Zealand.[21] Accordingly, both share a need to address potential merger activity where that activity lessens competition and is available as a strategic response to competition.

However, whilst this option is similar to the provision that is applied in New Zealand, it may not necessarily best suit Australia's market. This is due to the fact that New Zealand has a different approach to regulation in comparison to Australia. This was discussed by ERIG:

> In the New Zealand market, vertical integration has led to the concentration of the market into five integrated entities. The nodal pricing design of the New Zealand market, together with vertical integration, has given rise to regionally dominant 'gentailers' (ie, resulting in major horizontal aggregation within regions). Here, the problem appears to be horizontal aggregation within regions, with which vertical integration is associated.[22]

<u>Option 4</u> – Generation/Transmission Mechanism with a 'Bright Line' MW Exemption

This option would involve inserting a generation/transmission provision in the NEL and contain an exemption test that largely replicates the Victorian cross-ownership provision contained in the *Electricity Industry Act 2000* (Vic Act). This limits a person from having an entitlement to generating capacity within the meaning of the separation of generation, transmission and distribution sector provisions of more than 200 MW.

The exemption test could take the form of a simple "bright line" test where a person is limited from having generating capacity of more than 200 MW.

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[20] Gross pool- all electricity is traded through a central pool. Under this system, generators bid to supply amounts of electricity at particular prices. The price for electricity in the pool (the spot price) is based on the lowest cost dispatch of generators that equates supply and demand (discussed above). The alternate arrangement to a gross pool is a net pool. Under a net pool structure, most electricity is sold through bilateral contracts between generators and retailers/customers. The non-contracted amount required to balance supply and demand is sold through a residual pool (the 'net pool').

[21] Deloitte, *NEMMCO Prudential Processes in the National Electricity Market*, July 2005 p. 25.

[22] COAG, *Energy Reform – The Way Forward for Australia, A Report by the COAG by the Energy Reform Implementation Group*, January 2007, p126.

The test will need to ensure that where a MW exemption provision is adopted that the MW threshold applies on a total generating capacity basis rather than a unit basis. Adopting a unit basis would allow a transmission business to build or own a number of generating facilities (with generation capacity not exceeding 200 MW) across the NEM.

The test should provide that a person exercises control according to the same principles provided under Option 2 (except that control does not include persons having 'company interests' in a Registered Participant that owns a generation asset of less than 200 MW). As also outlined under option 2, exceptions to the provision would apply under this option.

In addition, an exception is required granting a discretionary decision to the Regulator where integration involves 'intermittent' generation exceeding 200 MW. As part of its discretionary decision, the Regulator will need to consider that:

- Intermittent generation is less flexible than scheduled generation and less likely to be a useful tool for anti-competitive conduct;
- It is unlikely that intermittent generation will be a market power issue in the short term - it may become a market power issue in the longer term, subject to growth in intermittent generation technologies (notably wind generation); and
- The MCE is currently promoting the development of measures to remove the unpredictability of intermittent generation and to provide intermittent generation in the NEM on a more scheduled basis.

<u>Option 5</u> – Generation/Transmission Mechanism with a Percentage Exemption plus MW Exemption

This option would insert a generation/transmission provision in the NEL containing an exemption test that would consider both a percentage and MW level of ownership and control. The test should provide that a person exercises control according to the same principles provided under Option 2, excepting that the person has control if:

- Their 'company interests' in a Registered participant that owns a transmission system exceed 20% of the total share; and
- Their 'company interests' in a Registered Participant that owns a generating system exceed 5% of the total share, unless that ownership relates to total generating capacity of less than 30 MW (greater than 5% ownership will be allowed if that ownership relates to total generating capacity of between 30 MW and 150 MW, with the approval of the Regulator, if that capacity is predominantly for the purpose of providing network or grid support).

As also outlined under option 2, exceptions to the provision would apply under this option.

The exemption test will also need to include a discretionary arrangement for the Regulator concerning intermittent generation, as proposed under Option 4.

OPTIONS	Option 1: Status Quo	Option 2: TPA Amendments	NEL Amendments		
			Option 3: General presumption test	**Option 4: Generation/transmission mechanism with a "bright line" MW exemption**	**Option 5: Generation/transmission mechanism with a % exemption plus MW exemption**
Application of TPA provisions including section 50	Applicable under all options.				
Application of access regime including access framework, regulatory framework, and ring-fencing.	Applicable under all options.				
What legislation would the provisions be contained in.	N/A	TPA	NEL	NEL	NEL
Description of option including any tests	Continue to rely on existing mechanism including the TPA generic provisions and the access regime.	*Test:* A provision that prohibits ownership of both generation and transmission activities.	*Test:* A provision that prohibits ownership of both generation and transmission activities.	*Test:* A provision that prohibits ownership of both generation and transmission activities.	*Test:* A provision that prohibits ownership of both generation and transmission activities.
		Exemption: General exemption test, as follows: The Regulator may exempt a transmission network or generator were the relevant party has shown that there are no possible anti-competitive effects or lessening of competition from the Regulator granting the exemption.	*Exemption:* Similar to the NZ Act., in considering an exemption application, the regulator will consider whether the exemption would: • Create incentives or opportunities to inhibit competition in the electricity industry; • Create incentives or opportunities to cross-subsidise generation	*Exemption:* Similar to the Vic Act, which prescribes a MW exemption plus discretionary exemption, as follows: • A person is limited from having generating capacity of more than 200 MW; and • An exception by the regulator where integration involves	*Exemption:* The exemption provisions could take the following form: • Their 'company interests' in a Registered participant that owns a transmission system do not exceed 20% of the total share; and • Their 'company interests' in a Registered Participant that owns a

			activities from electricity lines businesses; and/or • Permit a relationship between an electricity lines business and an electricity supply business which is not at arm's length.	'intermittent' generation exceeding 200 MW. As part of its discretionary decision, the regulator will need to consider that: • Intermittent generation is less flexible than scheduled generation and less likely to be a useful tool for anti-competitive conduct; • It is unlikely that intermittent generation will be a market power issue in the short term - it may become a market power issue in the longer term, subject to growth in intermittent generation technologies (notably wind generation); and • The MCE is currently promoting the development of measures to remove the unpredictability of intermittent generation and to provide intermittent generation in the NEM on a more scheduled basis.	generating system do not exceed 5% of the total share, unless that ownership relates to total generating capacity of less than 30 MW (greater than 5% ownership will be allowed if that ownership relates to total generating capacity of between 30 MW and 150 MW with the approval of the Regulator if that capacity is predominantly for the purpose of providing network or grid support). Similar to option 4, a discretionary arrangement for the regulator concerning intermittent generation will be required.
Does the option require grandfathering provisions	No	Yes That is, persons who are in breach at the date of these provisions have three	Yes That is, persons who are in breach at the date of these provisions have three years from the commencement of	Yes That is, persons who are in breach at the date of these provisions have three years from the commencement of	Yes That is, persons who are in breach at the date of these provisions have three years from the commencement of

		years from the commencement of the amendments to remedy that breach, in particular to divest relevant interests.	the amendments to remedy that breach, in particular to divest relevant interests. A power should be provided to extend this period by regulation if necessary.	the amendments to remedy that breach, in particular to divest relevant interests. A power should be provided to extend this period by regulation if necessary.	the amendments to remedy that breach, in particular to divest relevant interests. A power should be provided to extend this period by regulation if necessary.
How will amendments be implemented – i.e. Parliamentary Process.	NA	The process for amending the TPA involves the Commonwealth Parliament passing the amendments.	The process for inserting a provision in the NEL will firstly involve amendments to the NEL in the SA parliament, which is the lead legislator. This will then be adopted by all jurisdictions including the Commonwealth. These amendments can be made at the same time as the non-economic package.	The process for inserting a provision in the NEL will firstly involve amendments to the NEL in the SA parliament, which is the lead legislator. This will then be adopted by all jurisdictions including the Commonwealth. These amendments can be made at the same time as the non-economic package.	The process for inserting a provision in the NEL will firstly involve amendments to the NEL in the SA parliament, which is the lead legislator. This will then be adopted by all jurisdictions including the Commonwealth. These amendments can be made at the same time as the non-economic package.
Other comments		Section 50 of the TPA are generic merger/acquisition provision which apply to Australian industries, not just electricity.	o Investigative and information gathering powers would apply to these provisions. o A civil penalty will also apply to these provisions.	o Investigative and information gathering powers would apply to these provisions. o A civil penalty will also apply to these provisions.	o Investigative and information gathering powers would apply to these provisions. o A civil penalty will also apply to these provisions.

IMPACT ANALYSIS

As discussed under Options, for each option excluding the status quo, existing arrangements will be 'grandfathered' for up to three years. This will assist in alleviating the burden of potential divesture for companies that are required to comply with a particular option, and also give them adequate time to receive a fair return for their assets. It is also unlikely to impose any significant additional cost on the Regulator. However, we welcome comments regarding whether a three year timeframe to divest assets is appropriate.

Note that all options, other than Option 1, will have similar regulatory implementation costs, but may have different enforcement costs. Option 2, potentially presents complex legislative challenges that will make implementation less timely than other options.

It should also be noted that costs associated with data and records are not expected to be a significant cost or burden for any of the options. Under the economic regulatory package, the AER will be given broad information gathering powers to undertake its functions. These information gather powers will not need to be amended in light of the generation/transmission provisions. Therefore, the insertion of the separation requirements in the NEL will not impose additional information gathering provision on industry.

Major stakeholders that are likely to be affected by the following options include:

- transmission asset owners;
- electricity generators;
- regulators; and
- end users.

Option 1 – Status Quo

Benefits

- No implementation costs and would not disrupt existing legislative, regulatory and commercial arrangements.

Costs

- As discussed in the problem section, the real economic cost of this option arises from the possibility of an entity becoming integrated or having a controlling interest, and exercising market power to stifle or prevent competition in the generation sector (by temporarily excluding generators from the market through its control of the transmission network). This has the potential to distort investment signals, raise barriers to entry, create a more integrated and fragmented market and increase prices paid by end-users.

Option 2 – Amend Section 50 of the Trade Practices Act

This option is not considered a viable option. For completeness, this RIS outlines some of the potential costs and benefits for this option.

Benefits

- The presumption that generation/transmission cross-ownership is anti-competitive (against which a proposed integrated entity must provide a case) will catch a broader range of anti-competitive acquisitions. This will be an improvement on the status quo.
- Reverses the onus of proof onto the relevant parties seeking exemption.

Costs

Assessment of an integration proposal would require that the NEM (or a component of the NEM) is defined and competition impacts assessed within that market definition. Whilst this exposes all merger proposals to the rigour of a competition impacts assessment, it:

- Does not provide sufficient additional clarity for market participants, as to the limits of cross-ownership activity, compared to the existing TPA provisions (this includes clarity on the treatment of PPA);
- Exposes contractual partners to uncertainty where a PPA already exists (involving the threat that the Regulator may deem that the PPA is in breach of the TPA provisions);
- Introduces regulation that is far more intrusive and costly, particularly for market participants;
- Does not address the issues raised in this RIS concerning market complexity and the difficulty in assessing the potential for anti-competitive behaviour, including future anti-competitive behaviour in relation to business decisions (i.e. infrastructure operation and expansion);
- Exposes integrated entities (that have received prior regulatory approval) to the risk that they may be required to divest assets in future as their business activities evolve (e.g., the opportunity for anti-competitive activity may arise as a consequence of gradual infrastructure upgrades), potentially creating regulatory intrusion and litigation activity; and
- Risks creating extensive litigation and, hence, significant increases to the cost of conducting business in the NEM.

Further, it is unclear what difficulties are involved in amending a general provision of the TPA. Section 50 operates as a non-specific regulatory instrument and was not intended to accommodate special provisions targeting industry sectors and specific activities within those sectors.

Impact on Stakeholders

Transmission Asset Owners and Generators
As indicated above, this option does not specify what levels of cross-ownership an integrated entity can own/control. It is likely to create uncertainty with regard to the ownership or control balance that is allowable, creates excessive regulatory burden and risks additional litigation activity. The same uncertainties apply in relation to the Regulator's treatment of PPA. Where PPA are used to provide network support, this uncertainty potentially impacts on system reliability and security.

Note that grandfathering arrangements will be for a minimum of three years. Where the arrangements under this option require divestment of assets or cancellation of contracts (in the case of PPA), this will grant companies ample time to seek fair return on their assets or make alternative contract arrangements.

Regulators

Under this option, the Regulator will need to consider simple and complex ownership and control structures. The Regulator will require discretion to assess, on a case-by-case basis, whether there has been a breach of the general test (i.e. competition will be substantially lessened). Experience has demonstrated (AGL/Loy Yang[23]) that it is very difficult to determine whether an acquisition breaches a general test, and in the end a judicial determination could be required. Judicial review would consequently make the process costly, complex and time-consuming.

End Users
If this option does result in additional regulation, reporting and litigation, this can be expected to lead to an increase in the price paid by end-users for electricity services.

If a proposed integrated entity passes the exemption test but manages to establish a position of market power over time (as business operations evolve), this could lead to an increase in the price paid by end-users for electricity services. Competitors may also look to counter this market power through their own consolidation strategies. The potential for market power may not be apparent at the time of consolidation, presenting risk of longer term price increases for end users.

Option 3 – Amend the National Electricity Law – general presumption

Benefits

- Consistent with section 50 of the TPA.
- Reverses the onus of proof onto the relevant parties seeking exemption.

Costs

- Replicates section 50 of the TPA and therefore provides limited clarity over the existing TPA provisions. Once again, the test would require a market to be defined and competition assessed within the relevant market(s). This provides limited guidance and certainty to market participants on their obligations and the same costs would apply as those listed under Option 2 above.

Impact on stakeholders

Transmission Asset Owners
This option does not specify what levels of generation a transmission asset owner can own or control, and is likely to create uncertainty with regard to what form of generation ownership or control is allowable. Due to the uncertainty created around permissible levels of ownership, it is unclear if this option will be able to prevent an integrated entity from stifling competition in the generation sector. Extensive litigation may be required by the transmission asset owners if they own electricity generation assets.

It is currently uncertain whether any companies will be required to be broken up under this option (which may include cancellation or prevention of TNSPs from having PPA with generators). However, seeing that grandfathering arrangements will be for a minimum of three years, companies that are required to divest assets will be given ample time to seek a fair return.

[23] The application of section 50 in the electricity market was recently considered by the Federal Court in *Australian Gas Light Company v Australian Competition & Consumer Commission* (2003) 137 FCR 317 (the *AGL case*) http://www.austlii.edu.au/au/cases/cth/federal_ct/2003/1525.html. In summary, the Federal Court held that the Australian Gas Light Company (AGL), a major retailer in the NEM, would not breach section 50 by the acquisition of an electricity generator known as Loy Yang A Power Station.

Generators
A general test will not specify in detail how the test will be applied, and for this reason may create uncertainty for industry participants. This option also has the risk to generators of being temporarily excluded from the market because of the lack of adequate separation of ownership or control of generation and transmission activities (this is due to the fact that anti-competitive conduct can be complex and difficult to prove and may not be evident to the Regulator). If this occurs it is likely that generators will seek to mitigate this risk through further consolidation activities. In addition, extensive litigation may be required by electricity generation assets owners if they own transmission assets.

It is currently uncertain whether any companies will be required to be broken up under this option (which may include cancellation or prevention of TNSPs from having PPA with generators). However, seeing that grandfathering arrangements will be for a minimum of three years, companies that are required to divest assets will be given ample time to seek a fair return.

Regulators
Discretion will be required from the Regulator to assess on a case by case basis whether there has been a breach of the general test (competition will be substantially lessened). Experience has demonstrated (AGL Loy Yang) that it is very difficult to determine whether an acquisition breaches a general test, and in the end a judicial determination could be required. Judicial review will consequently make the process costly, complex and timely.

The Regulator will need to consider simple and complex ownership and control structures.

End Users
If a general test does not prevent an integrated entity from exercising market power to stifle or prevent competition in the generation sector through its control of the transmission network, it is likely that the price paid by end users will increase. If this occurs it is likely that market participants will seek to mitigate this risk through further consolidation activities. This in turn will continue to substantially lessen competition in the market and increase the price paid by end users.

Option 4 – Generation/Transmission Mechanism with a 'Bright Line' MW Exemption

Benefits

- Complements Section 50 of the TPA.
- The test is simple. Such an approach would provide certainty and clarity to market participants in the provisions' application and enforcement. This would mean that all parties are clear about their obligations and such an approach limits subjectiveness in the provisions implementation.
- Captures the future construction/expansion of generation assets as well as acquisition of generation assets.
- Allows for PPA within the bounds of the 'bright line' limit and, as such, protects current and future PPA (and the parties involved) that are used for the purposes of grid support.
- This option will have minimal compliance costs seeing that it is unlikely to require any divesture of assets.

Costs

- Limited flexibility in comparison to options 2 and 3. Option 4 does not allow the Regulator to make a prudent decision where it deems that an integrated entity presents limited anti-competitive risk and yet owns/controls generation capacity above the 'bright line' level. Note that this should only be considered a light cost given market complexity and the difficulties that have been raised concerning more discretionary competition assessments elsewhere in this paper.
- The exemption provision may not wholly prevent an integrated entity from exerting some control over the terms of network access for competitors. This could potentially be overcome by decreasing the MW threshold to 100 MW or by an additional test. However, the opportunity for anti-competitive activity is highly dependent on the location of generation relative to network load. Whilst a 100 MW to 200 MW 'bright line' limit would be a major preventative measure, potential room would remain for the strategic abuse (which includes both stifling competition and extraction of monopoly rents) of small but critical infrastructure by integrated entities.
- There are limits to the capture of PPA that are used for grid support due to the existence of a 'bright line' threshold (i.e. it reduces a TNSP's options when seeking grid support contracts with generators). However, this should not be regarded as a serious cost as the MW value of grid support as high as 200 MW is possible but may be rare (as with grid support above 100 MW). Also, if grid support is required beyond this level, it can be sought from other participants.

Impact on Stakeholders

Transmission Asset Owners and Generators
This option provides clear obligations, certainty and clarity to transmission asset owners in the provision's application and enforcement.

Seeing that there are no existing integrated entities that own registered generation capacity at an aggregate above the 'bright line' level, no entities will be required to divest assets under this option.

Regulators
The Regulator will need to consider simple and complex ownership and control structures. However, the Regulator's enforcement responsibilities are simplistic in comparison with option 2.

End Users
If the 'bright line' limit is not sufficiently effective in preventing anticompetitive behaviour, it has potential to reduce competition and increase the price paid by end users.

Option 5 – Generation/Transmission Mechanism with a Percentage Exemption plus MW Exemption

Benefits

- Complements Section 50 of the TPA.
- The test is simple. Such an approach would provide certainty and clarity to market participants in the provisions' application and enforcement.
- Provides a more extensive prohibition on the allowed level of cross-ownership than Option 4 through both company share limits and through the restriction of cross-ownership activity to network support payments. This overcomes risks (identified under Option 4)

concerning the anti-competitive use of small but critical infrastructure elements by integrated entities that own/control an allowable level of generation capacity.

- Captures construction of assets as well as acquisition of assets (generation and transmission). This includes transmission network development, which impacts on competition but cannot practically be captured as part of a capacity-based limitation on integration (such as that provided under Option 4).
- Allows for PPA within the 150 MW limit and, as such, protects the relevant current and future PPA (and the parties involved) that are used for the purposes of grid support payments.
- Will have minimal compliance costs given that it is unlikely to require divesture of assets.

Costs

- PPA that are used for the purposes of grid support beyond 150 MW are not captured. However, as per Option 4, this should not be regarded as a serious cost as the megawatt value of grid support is possible but rarely would be as high as or higher than 150 MW. If grid support is required beyond this level, it can be sought from other participants.
- As indicated for Option 4, Option 5 offers the Regulator less flexibility within its compliance assessment role than a general provision. Once again, this should be regarded as a light cost (see option 4).

Impact on Stakeholders

Transmission Asset Owners and Generators
This option provides certainty and clarity to market participants in the provision's application and enforcement.

This option is unlikely to require existing companies to divest assets.

Regulators
The Regulator will be required to assess whether the generation assets are predominantly used for the purpose of providing network or grid support, and assured that there are no anti-competitive effects from granting the exemption.

Where it concerns the allowable ownership thresholds, the Regulator will need to consider simple and complex ownership and control structures. However, the technical assessment of generation and transmission assets is relatively straightforward given the Regulator's high level of technical energy market expertise. This option also provides certainty and clarity with regard to the level of allowed generation/transmission ownership and for this reason determinations by the Regulator are unlikely to be contentious.

End Users
No negative impact on end-users is anticipated. This is a preventative measure (against future anti-competitive activity) and end-users are expected to benefit through removing the potential for price increases as a consequence of generation/transmission mergers.

CONSULTATION

COAG Meeting 10 February 2006

COAG considered this issue at its 10 February 2006 meeting. COAG is the peak intergovernmental forum in Australia and its Communiqué represents the endorsement of the

Prime Minister, State Premiers, Territory Chief Ministers and the President of the Australian Local Government Association.

Productivity Commission Review of National Competition Reforms

The Productivity Commission Report *Review of National Competition Reforms* (2005), contained the findings of the PC inquiry report which encompassed extensive consultation with a broad range of stakeholders, including all levels of government and affected parties. In mid 2004, the PC invited interested parties to make written submissions. 135 submissions were received prior to the release of the Discussion Draft in 2004 and a further 131 in response to the Draft.

In addition to written submissions, the Productivity Commission also undertook the following consultations:

- Meeting with 49 organisations, groups and individuals covering a wide range of interests across all jurisdictions, this occurred between April and July 2004;
- Two roundtable discussions on specific aspects of the inquiry in July 2004;
- A workshop in July 2004 to make preliminary modelling results available for scrutiny and comment; and
- Public hearings in Sydney, Melbourne, Canberra and Perth during November and December 2004 to provide interested parties with an opportunity to comment on the Discussion Draft.

Release of RIS

Stakeholder comments are invited on the content of this RIS, and will be used to assist the MCE in making its final decision on the implementation of the COAG commitment.

CONCLUSIONS

Option 1
The Status Quo will not implement the in principle COAG decision and is not a preferred option.

Option 2
Amendments to section 50 of the TPA will provide little certainty for industry participants. Given that it will be the responsibility of the asset owners to disprove the presumption with evidence, this option may require litigation to resolve. Furthermore, it is unclear whether any companies would have to divest in future under this option. Finally, this option is unlikely to fully implement the in principle COAG decision.

Option 3
This option would essentially replicate section 50 of the TPA, provide little certainty for industry participants and may require extensive litigation to resolve. It is unclear whether any companies would be required to divest. This option is also unlikely to fully implement the in principle COAG decision.

Option 4
This option would complement section 50 of the TPA and provide certainty and clarity to market participants. It would not require divesture of existing company assets. However, this option has limited flexibility and there is uncertainty as to what is the appropriate 'bright line' threshold level. Some risk would remain of anti-competitive activity arising from the ownership of generation below 200 MW given the operational characteristics of the spot market and the wider

impacts that small infrastructure elements (notably transmission infrastructure) can have in the market.

Option 5

This is the preferred option. It provides a more firm prohibition on cross-ownership than Option 4, delivering more certainty and clarity for market participants. It overcomes the concerns in option 4 regarding the potential for anti-competitive conduct within a simple MW threshold and complements section 50 of the TPA. This option is also unlikely to require divesture of generation assets. It contains some flexibility and captures the intent of the in-principle COAG decision. The Option would establish a clear and enforceable framework for industry with less compliance and enforcement costs than would be the case with a more subjective test.

IMPLEMENTATION AND REVIEW

The Ministerial Council on Energy (MCE) will be amending the NEL towards the end of 2007 to implement commitments in the Australian Energy Market Agreement (AEMA) relating to the completion of the transfer of economic distribution functions to the national framework.

The separation of generation/transmission provisions will not be implemented as part of the economic package. The NEL provisions could be inserted as part of the non-economic distribution and retail package or as a separate NEL amendment bill.

The MCE has policy oversight for the electricity review schemes and will consider whether the amendment to the NEL adequately reflects the in principle COAG decision.